

Configuration Manual

MSc Research Project
Cyber Security

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MSc Project Submission Sheet
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Module: Research Project
Supervisor: Mr. Niall Heffernan
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I hereby certify that the information contained in this (my submission) is information pertaining to research I conducted for this project. All information other than my own contribution will be fully referenced and listed in the relevant bibliography section at the rear of the project.

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Configuration Manual

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1 Introduction:

The configuration manual will give information about proposed dynamic web application, system configuration for implementing project.

2 System Specification:

To implement the proposed project, we need working web application that should relate to database. Hosting provider need with proper configuration to host the application with DNS configuration.

2.1 Server Configuration:

Item	Details
Hosting Package	StellarPlus18
cPanel Version	94.0 (build 13)
Apache Version	2.4.48
PHP Version	7.2.34
MySQL Version	10.3.30-MariaDB-log-cll-lve
Operating System	Linux
Perl Version	5.10.1
SMTP	Used for mail alert.

2.2 Email Creation:

To send the email alert to the admin (info@shariarparves.info) email has been created.

<input type="checkbox"/> > info@shariarparves.info	✓ Unrestricted	459.04 KB / ∞ / 0%	Check Email	Manage	Connect Devices
<input type="checkbox"/> > info@web.shariarparves.info	✓ Unrestricted	76.14 KB / ∞ / 0%	Check Email	Manage	Connect Devices

2.3 Application Code:

To implement the project following programming language and database uses.

Bootstrap	Used for design application
PHP	Server-side scripting language, PHP regex algorithm used for SQL injection track.
Database	MySQL

2.4 Code Writing:

Notepad++: To implement the application and write the code Notepad++ has used.

2.5 Xampp:

As a local server xampp has used for developing application, it transferred in web by using the cPanel.

3 Online SQLI Tools:

3.1 Pentest Tools:

Penetration testing tools has used for checking SQL injection. The result was expected, application is not SQLI vulnerable as well as it provides relevant notification to the system admin.

3.2 Nessus:

Nessus is the vulnerability scanner that used for checking the SQLI vulnerability. It also provided the successful and expected result for the application.

3.3 Kali Linux:

Kali Linux has been used for checking the SQLI by using the SQL map.

4 Application installation

4.1 Installation in Local:

For installing the application in local environment, Xampp need to be installed. At the beginning shariar-project file should be extract. After the extraction of the file, there will be a folder under the name of shariar and there is sql database file. Inside the Xampp there will be a folder name htdoc. Shariar folder should be included inside the htdoc folder. Folder will be like below:

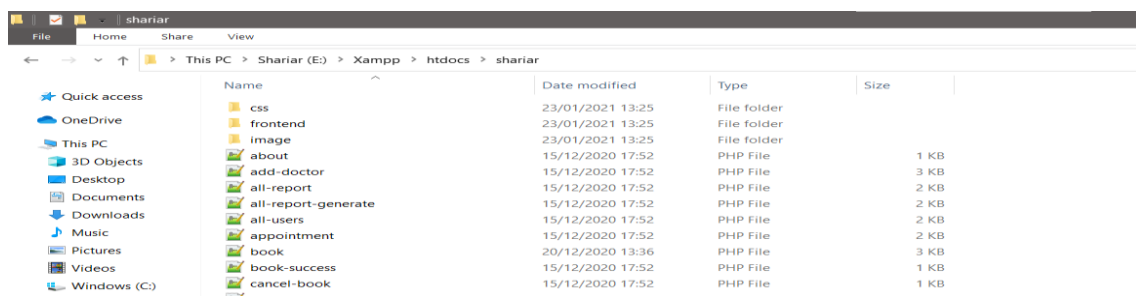


Figure 01: Shariar folder path inside htdoc in Xampp

4.2 Import SQL in database:

To import the SQL file to the database, local Xampp server Apache and MySQL should be start as like following.

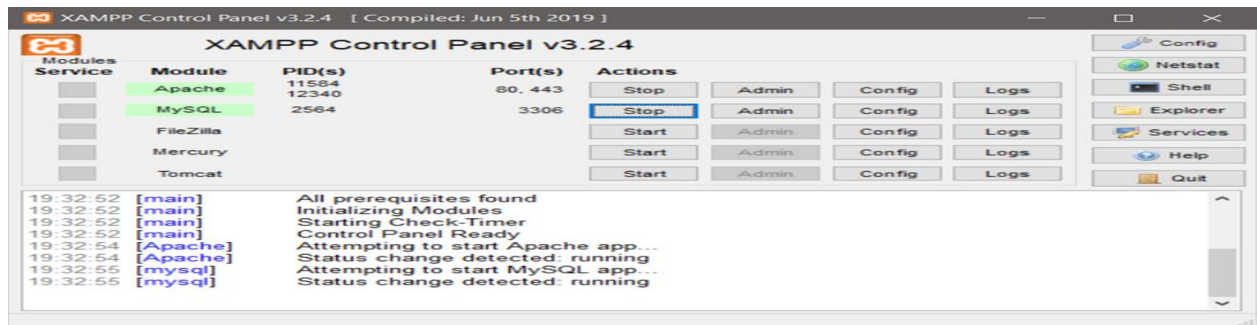


Figure 02: Start local server.

In the browser need to browse the local server to get access to the phpMyAdmin which is like below:

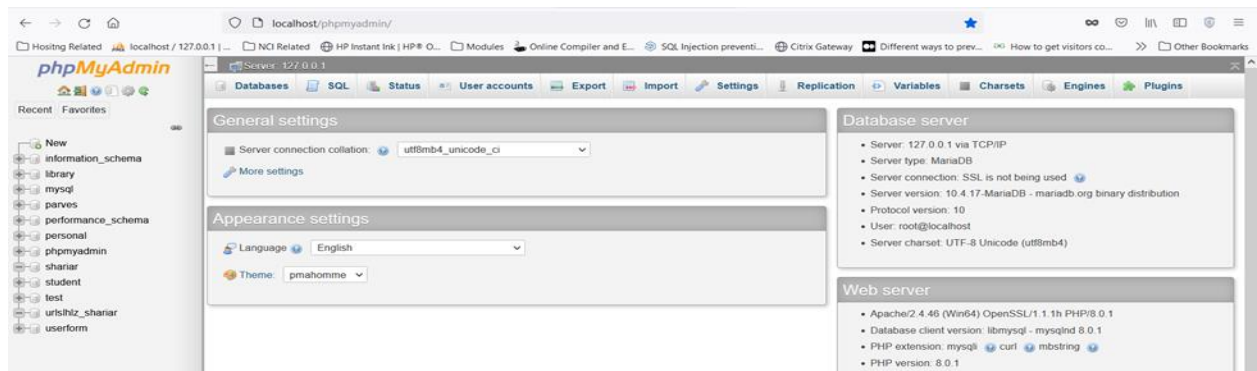


Figure 03: phpMyAdmin access.

After that we need to create database under the name of urlshlz_shariar. Then we must import the sql file to get all the data and login credential.

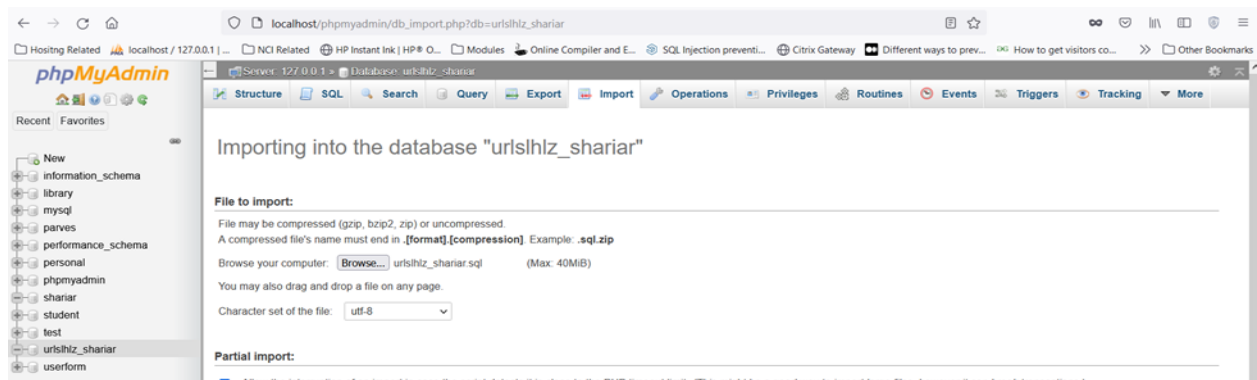


Figure 04: Import SQL file in the database.

4.3 Database Connection:

To generate connection with file as well as database, need to configure host name, database name, database users and password according to the phpMyAdmin. For that reason, we have to modify connection.php

```
1 <?php
2 $dbhost = 'localhost';
3 $dbuser = 'urlslhlz_parves';
4 $dbpass = 'Shariar123!';
5 $dbname = 'urlslhlz_shariar';
6 $con = mysqli_connect($dbhost, $dbuser, $dbpass,$dbname);
7
8 if(! $con ) {
9     die('Could not connect: ' . mysqli_error());
10 }
11
12 ?>
```

Figure 05: Modify connection page.

If the application host on the local server, email notification will not work but it will store the information to the database. Application should be host properly to get the proper email notification.

5 File Transfer Protocol:

For configuring application in the hosting provider, FTP will be used as it will help for transferring the files within the hosting which is accessible form anywhere. For the FTP connection FileZilla has been used for creating secure FTP connection which has been shown in below:

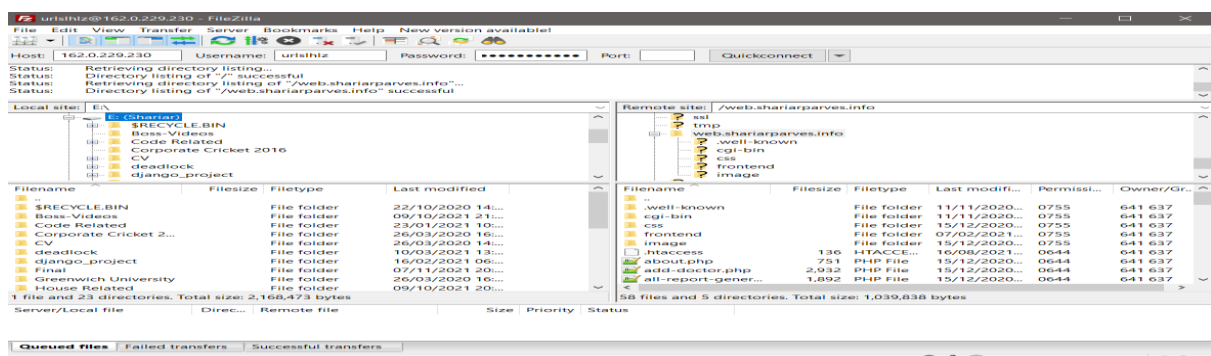


Figure 06: FileZilla for FTP connection.