

Lab Exercise – TestLink**SE3010 – SEPQM****Semester 1**

TestLink is web based test management tool. It synchronizes both requirements specification and test specification together and allows users to create a test project and document the test cases.

Learning objectives

1. Understanding the importance of test management
2. Practicing the tool

System requirements for installation

1. **Web Server** – TestLink supports Apache 2.2.2.1. However, it can work with any latest web server software. TestLink only uses .php file. Hence, configure the web server with .php extension only.
2. **PHP** – The web server should support PHP. It can be installed as CGI or any other integration technology. It is recommended to use 5.3.8 PHP version.
3. **Mandatory PHP Extensions** – Extensions for RDBMS are mysqli, pgsql, oci8, and sqlsrv. Mbstring is required for Unicode – UTF-8 support.
4. **Optional Extensions** – Curl, GD, and Fileinfo
5. **Database** – TestLink requires database to store its data. MySQL (5.5.16) is recommended.
6. **FileZilla FTP Server** – FileZilla FTP Server 0.9.39 is required to install XAMPP as optional

Step 1:

Go to <https://www.apachefriends.org/index.html> and click XAMPP for Windows as shown in the following screenshot:

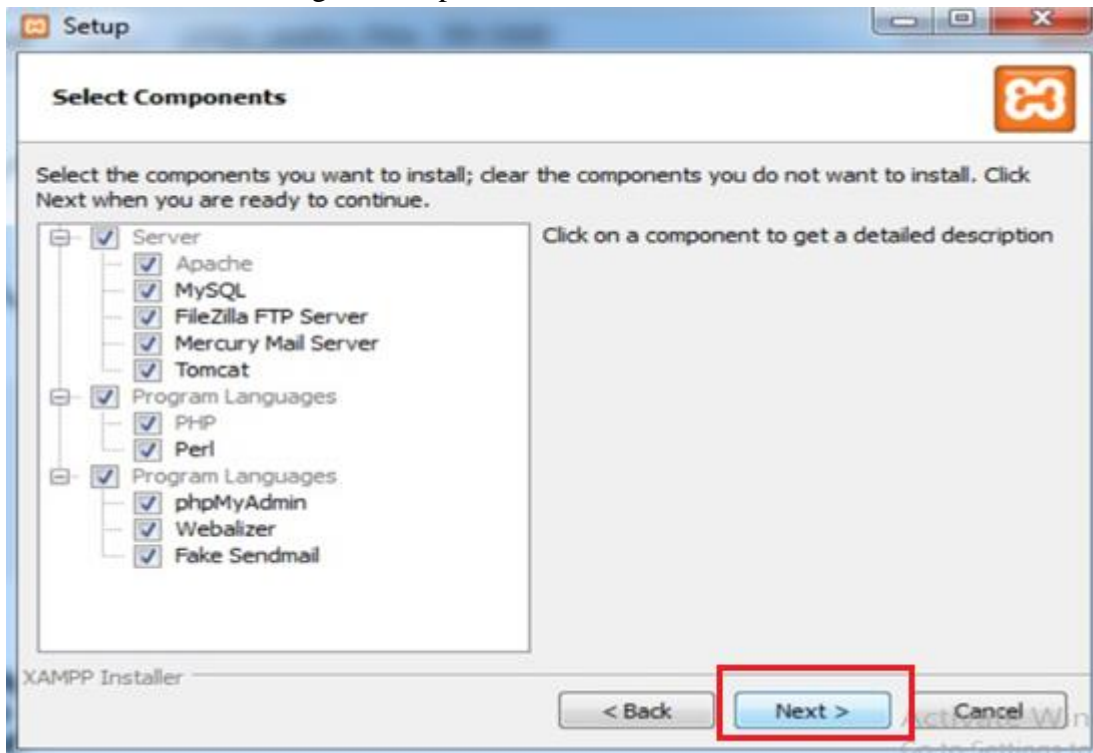


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Run the .exe file to run the installation wizard. After clicking the .exe file, the XAMPP Setup wizard is displayed as shown in the following screenshot. Click Next.

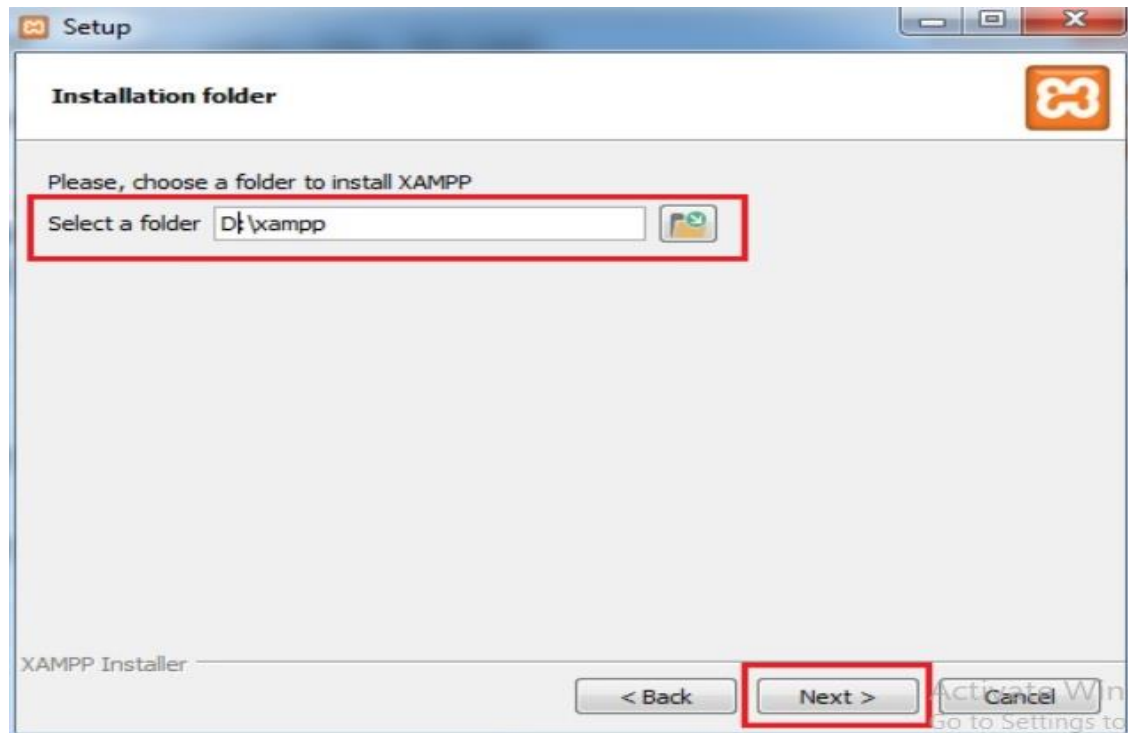
**Step 3:**

Next, the wizard displays all the component files (as shown in the following screenshot) that will be installed. Click Next after selecting the components.

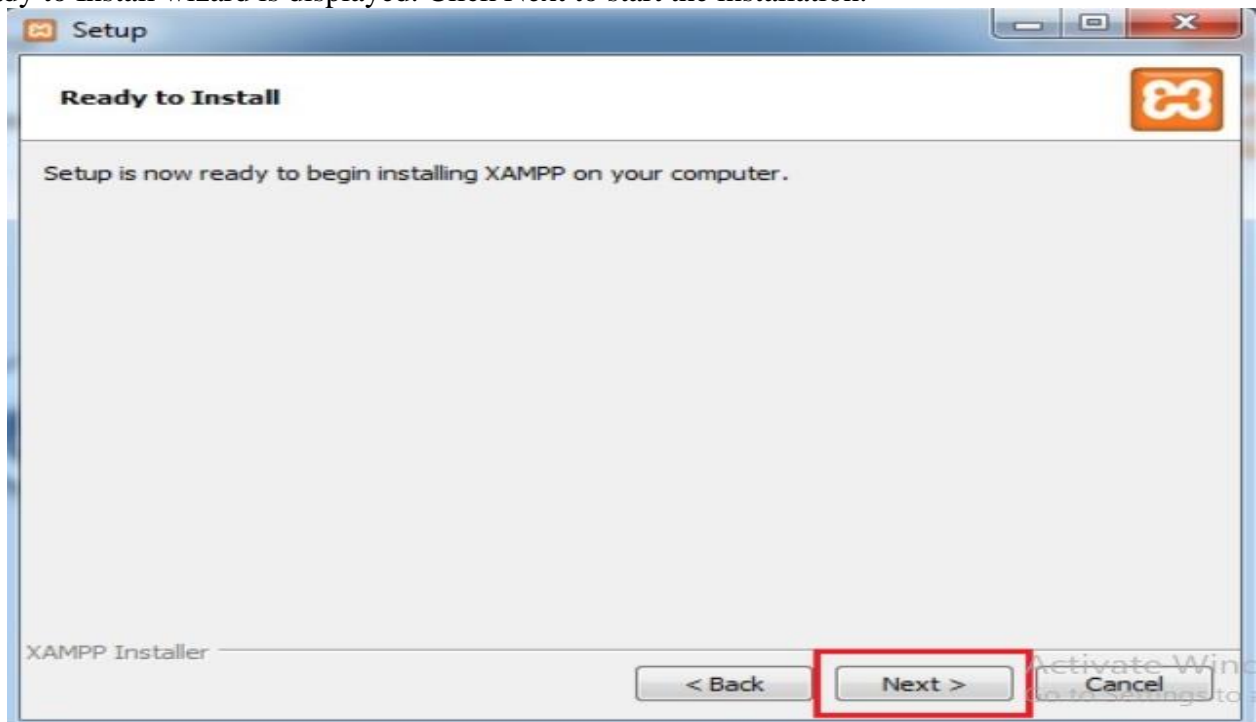


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Provide a folder name where XAMPP will be installed and click Next

**Step 5:**

Ready to Install wizard is displayed. Click Next to start the installation.



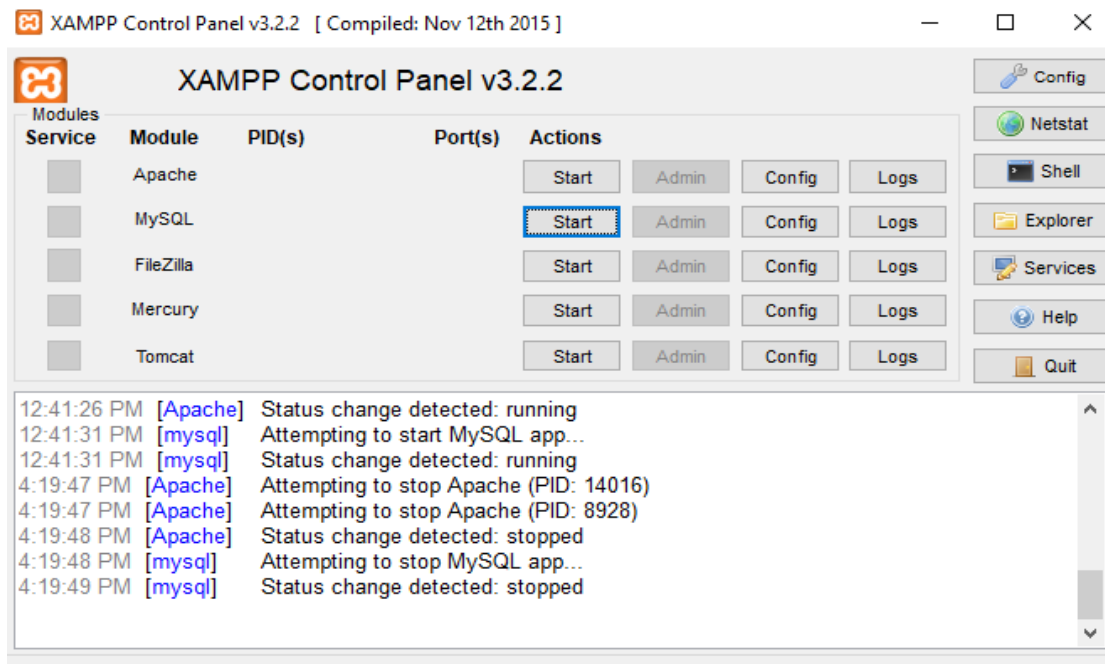
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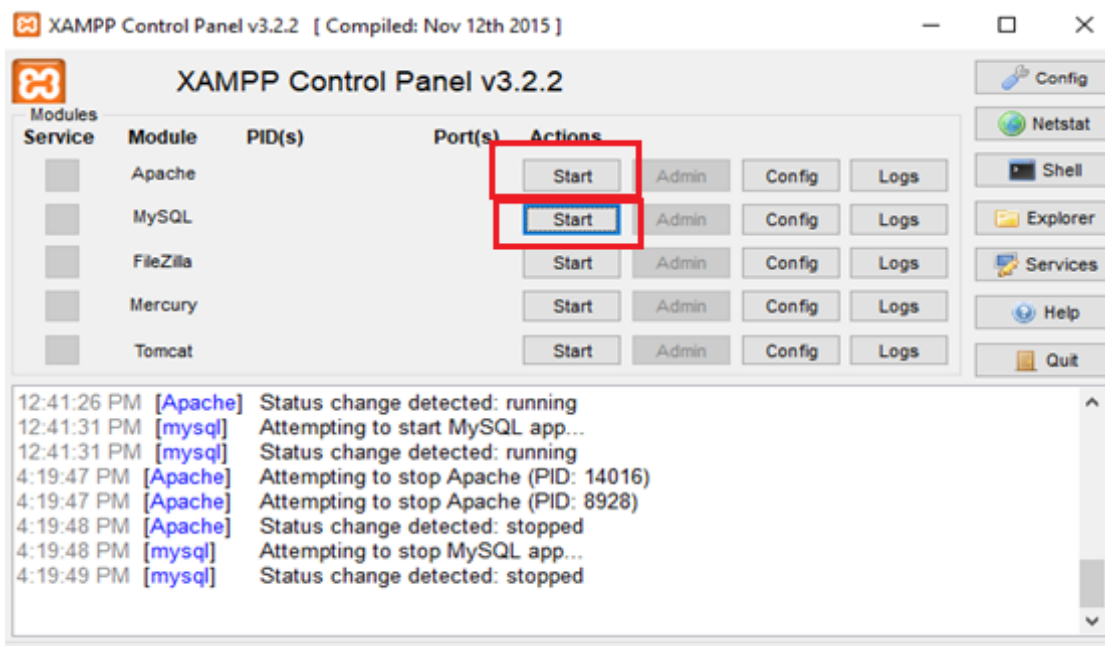
Step 6:

After successful installation, it will prompt to start the control panel. Select the checkbox and click Finish. It will open the XAMPP control panel as displayed in the following screenshot:



Step 7:

Click the Start button for Apache and MySQL required for TestLink as shown in the following screenshot:



Step 8 :

To verify whether all the pre-requisites such as Apache, PHP, and MySQL is installed properly, navigate to any browser and type <http://localhost:your port number>. Then, press Enter.

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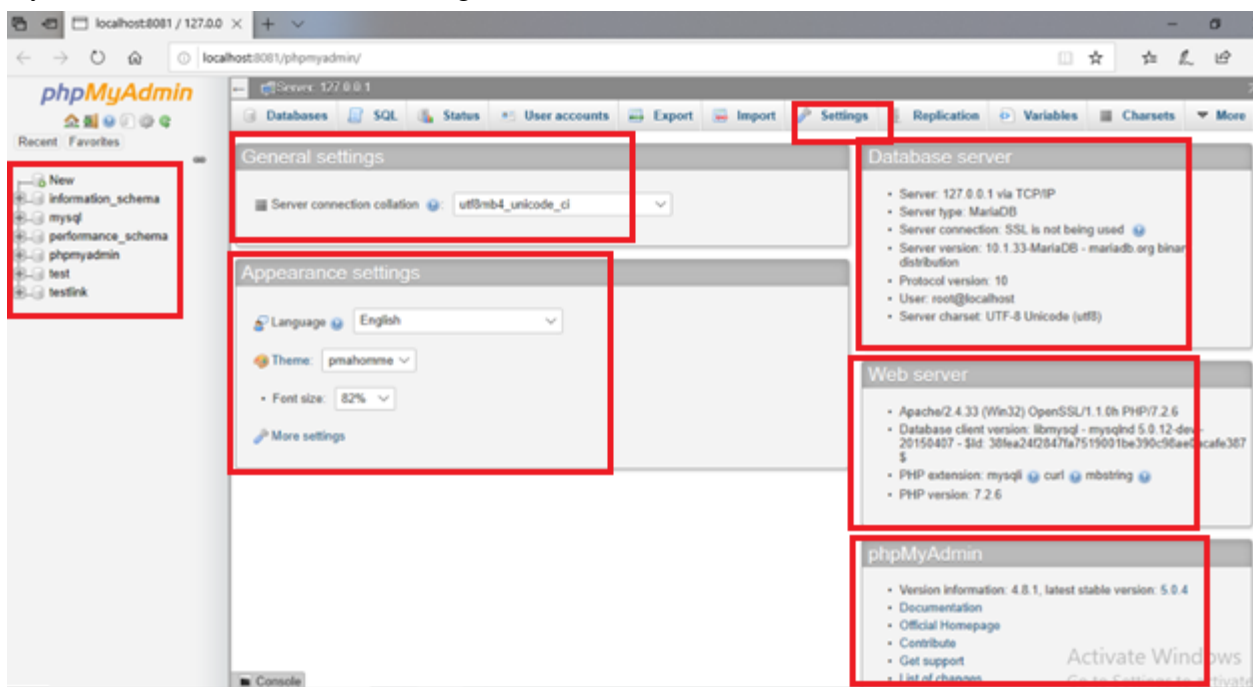
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Step 9:

It will display the dashboard of XAMPP. Click phpMyAdmin at the right top corner of the following screenshot:



Then, it will display General Settings, Appearance Settings, Details of Database, Web Server, and phpMyAdmin as shown in the following screenshot:



The above page will not be displayed if the installation has been done incorrectly. Hence, up to this point, all the pre-requisites have been successfully installed in the system.

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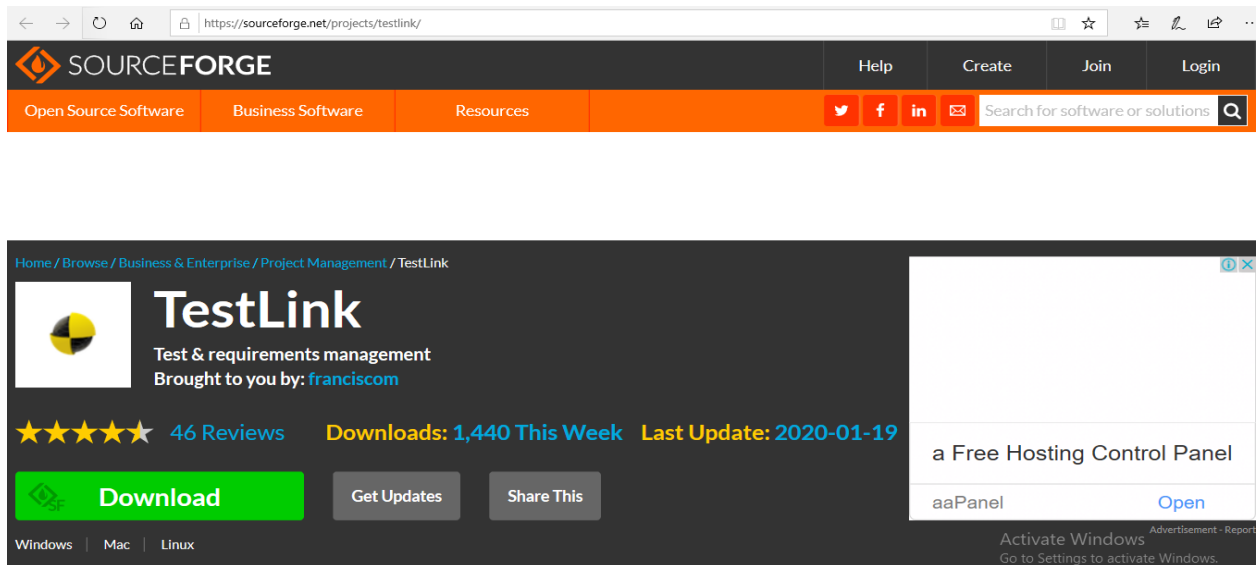
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Installing and launching TestLink

After successful installation of XAMPP, you need to work with TestLink.

Step 1:

Go to <https://sourceforge.net/projects/testlink/> and click download.

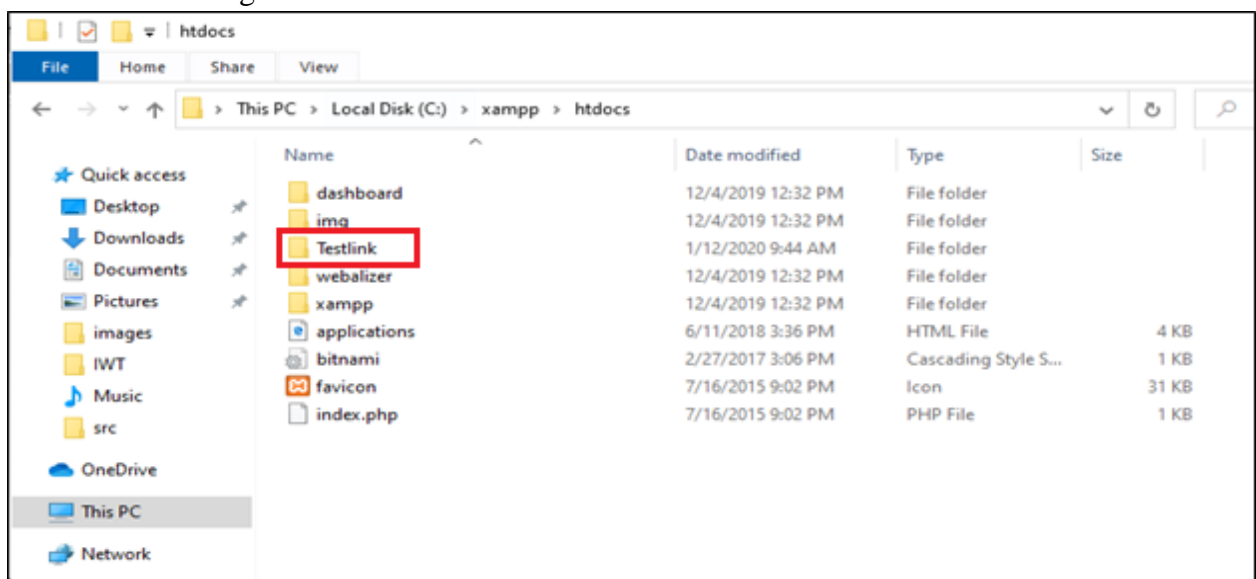


Step 2:

Now unzip the downloaded .rar file and rename the folder name as TestLink.

Step 3:

Go to XAMPP folder where it is installed and navigate to htdocs folder. Place the TestLink folder here as shown in the following screenshot:



Step 4:

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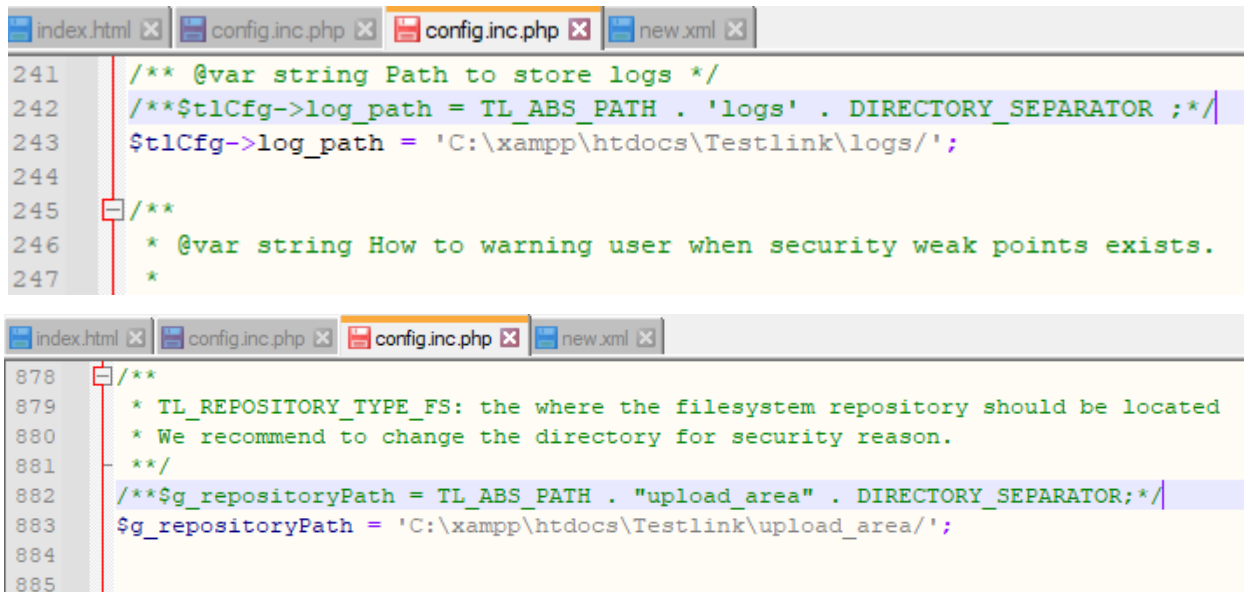
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Go to TestLink package and open “config.inc.php” file. Update “\$tlCfg→log_path” and “\$g_repositoryPath” paths as shown below:

```
$tlCfg→log_path = 'D:/xampp/htdocs/testlink/logs/';
```

```
$g_repositoryPath = 'D:/xampp/htdocs/testlink/upload area/';
```



```

241  /** @var string Path to store logs */
242  /**$tlCfg->log_path = TL_ABS_PATH . 'logs' . DIRECTORY_SEPARATOR ;*/
243  $tlCfg->log_path = 'C:\xampp\htdocs\Testlink\logs/';
244
245  /**
246   * @var string How to warning user when security weak points exists.
247   */
  
```

```

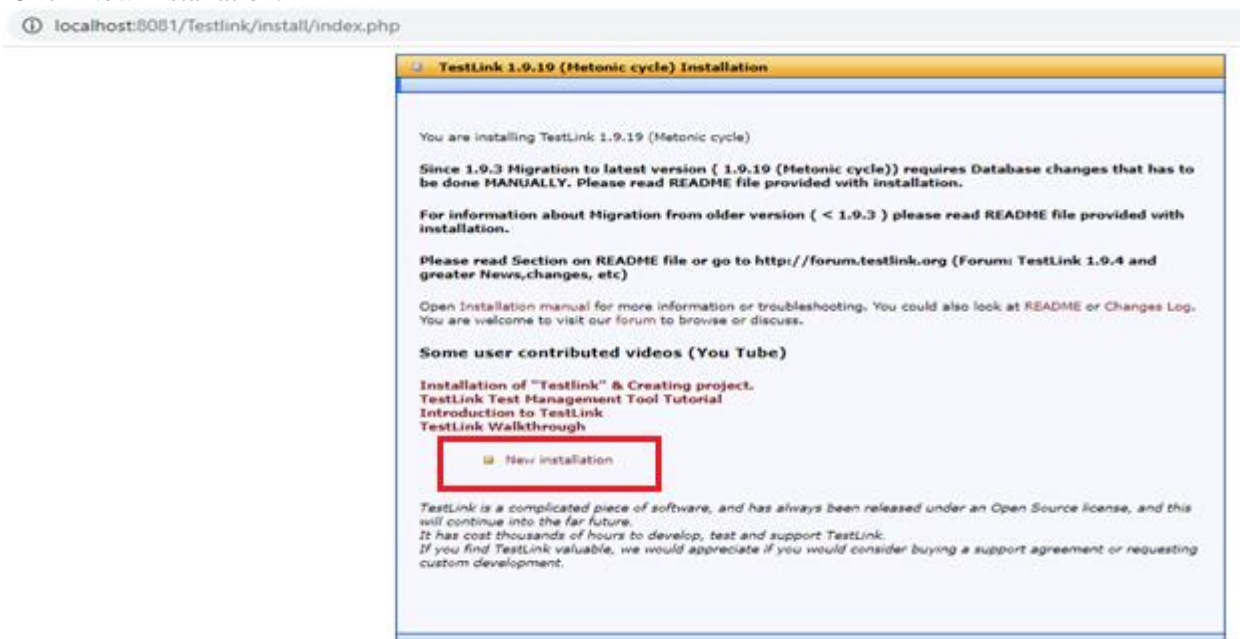
878  /**
879   * TL_REPOSITORY_TYPE_FS: the where the filesystem repository should be located
880   * We recommend to change the directory for security reason.
881   */
882  /**$g_repositoryPath = TL_ABS_PATH . "upload_area" . DIRECTORY_SEPARATOR;*/
883  $g_repositoryPath = 'C:\xampp\htdocs\Testlink\upload_area/';
884
885
  
```

Step 5:

Now open a browser and type [http://localhost:\(port number\)/Testlink/install/index.php](http://localhost:(port number)/Testlink/install/index.php) in the navigation bar, and press Enter. It will display the installation page of TestLink.

Step 6:

Click New Installation.



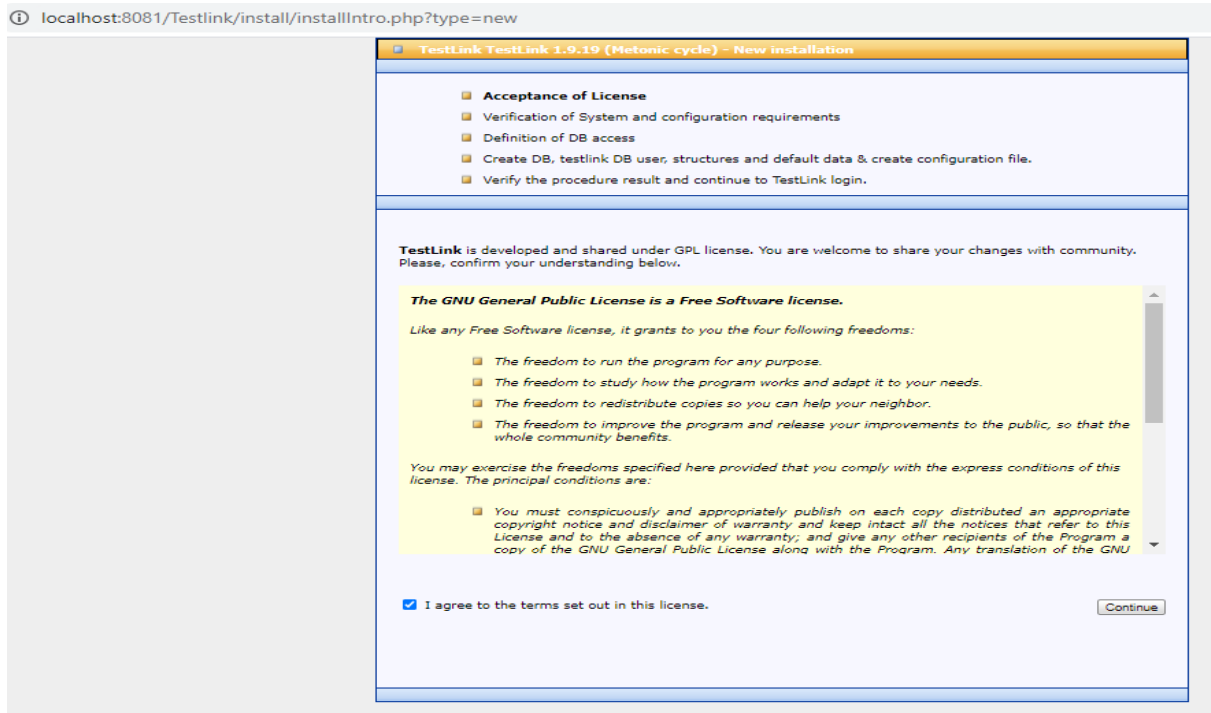
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Step 7:

Check the checkbox for Terms and Conditions and click the Continue button.



localhost:8081/Testlink/install/installIntro.php?type=new

TestLink TestLink 1.9.19 (Metonic cycle) – New installation

- Acceptance of License
- Verification of System and configuration requirements
- Definition of DB access
- Create DB, testlink DB user, structures and default data & create configuration file.
- Verify the procedure result and continue to TestLink login.

TestLink is developed and shared under GPL license. You are welcome to share your changes with community. Please, confirm your understanding below.

The GNU General Public License is a Free Software license.

Like any Free Software license, it grants to you the four following freedoms:

- The freedom to run the program for any purpose.
- The freedom to study how the program works and adapt it to your needs.
- The freedom to redistribute copies so you can help your neighbor.
- The freedom to improve the program and release your improvements to the public, so that the whole community benefits.

You may exercise the freedoms specified here provided that you comply with the express conditions of this license. The principal conditions are:

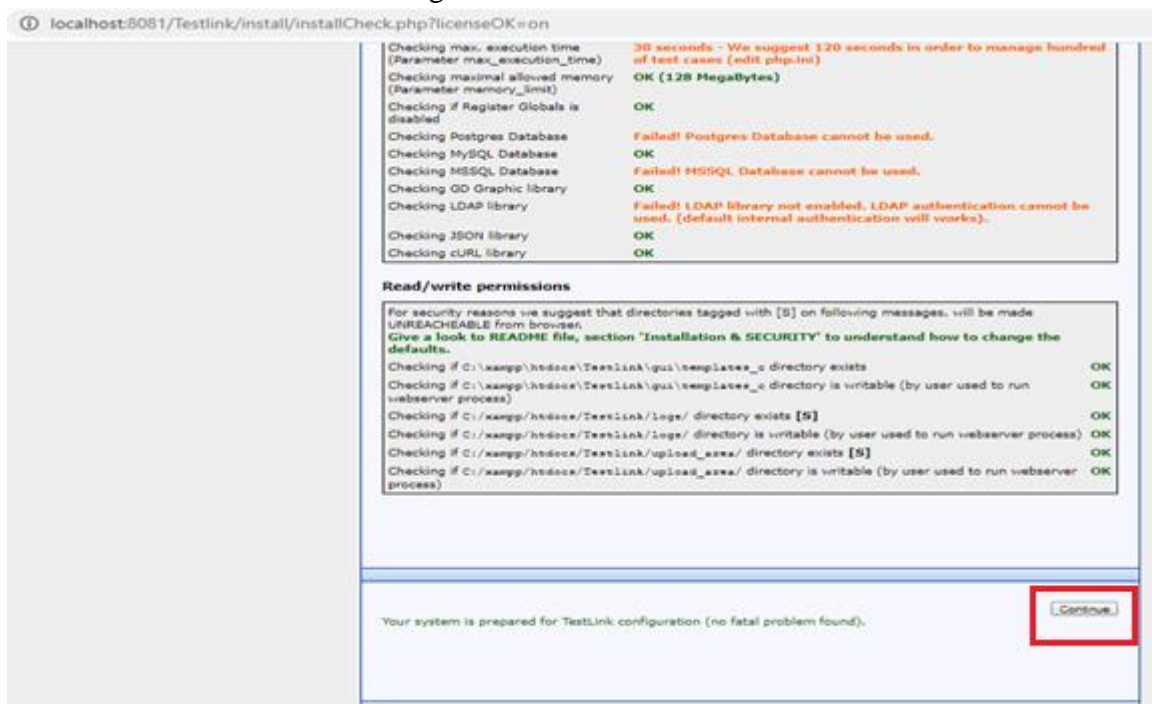
- You must conspicuously and appropriately publish on each copy distributed an appropriate copyright notice and disclaimer of warranty and keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of the GNU General Public License along with the Program. Any translation of the GNU

☒ I agree to the terms set out in this license. Continue

The system will check the pre-requisites to ensure everything is fine. A Continue button will appear at the bottom, otherwise an error message will be displayed.

Step 8:

Click Continue as shown in the following screenshot.



localhost:8081/Testlink/install/installCheck.php?licenseOK=on

Checking max. execution time (Parameter max_execution_time)	30 seconds - We suggest 120 seconds in order to manage hundred of test cases (edit php.ini)
Checking maximal allowed memory (Parameter memory_limit)	OK (128 MegaBytes)
Checking if Register Globals is disabled	OK
Checking Postgres Database	Failed! Postgres Database cannot be used.
Checking MySQL Database	OK
Checking MSSQL Database	Failed! MSSQL Database cannot be used.
Checking GD Graphic library	OK
Checking LDAP library	Failed! LDAP library not enabled. LDAP authentication cannot be used. (default internal authentication will works).
Checking JSON library	OK
Checking cURL library	OK

Read/write permissions

For security reasons we suggest that directories tagged with [S] on following messages, will be made UNREACHABLE from browser. Give a look to README file, section "Installation & SECURITY" to understand how to change the defaults.

Checking if C:\xampp\htdocs\Testlink\gui\templates_e directory exists	OK
Checking if C:\xampp\htdocs\Testlink\gui\templates_e directory is writable (by user used to run webserver process)	OK
Checking if C:\xampp\htdocs\Testlink\logs/ directory exists [S]	OK
Checking if C:\xampp\htdocs\Testlink\logs/ directory is writable (by user used to run webserver process)	OK
Checking if C:\xampp\htdocs\Testlink\upload_xxxx/ directory exists [S]	OK
Checking if C:\xampp\htdocs\Testlink\upload_xxxx/ directory is writable (by user used to run webserver process)	OK

Your system is prepared for TestLink configuration (no fatal problem found). Continue

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Step 9:

Database Admin and Admin password will be required to define MySQL access. TestLink admin username/password can be anything given by the user.

Database login/password: root/<empty> (Default login/password of MYSQL for xampp)

Step 10:

Click “Process TestLink Setup” button. You should see the TestLink “Installation was successful!” message being displayed.

The screenshot shows the 'installDbInput.php' page of the TestLink installer. It includes a 'Table prefix' field (optional), a note about shared databases, and fields for 'Database admin login' (root) and 'Database admin password'. Below these are fields for 'TestLink DB login' (admin) and 'TestLink DB password'. A red box highlights the 'Process TestLink Setup' button at the bottom.

Step 11:

Again, navigate to <http://localhost/testlink>. You will see the login page as shown in the following screenshot:

The screenshot shows the TestLink login page. It features the TestLink logo, version 1.9.19 (Metonic cycle), and input fields for 'Login Name' and 'Password'. A 'Log In' button is at the bottom, along with links for 'New User?' and 'Lost Password?'.

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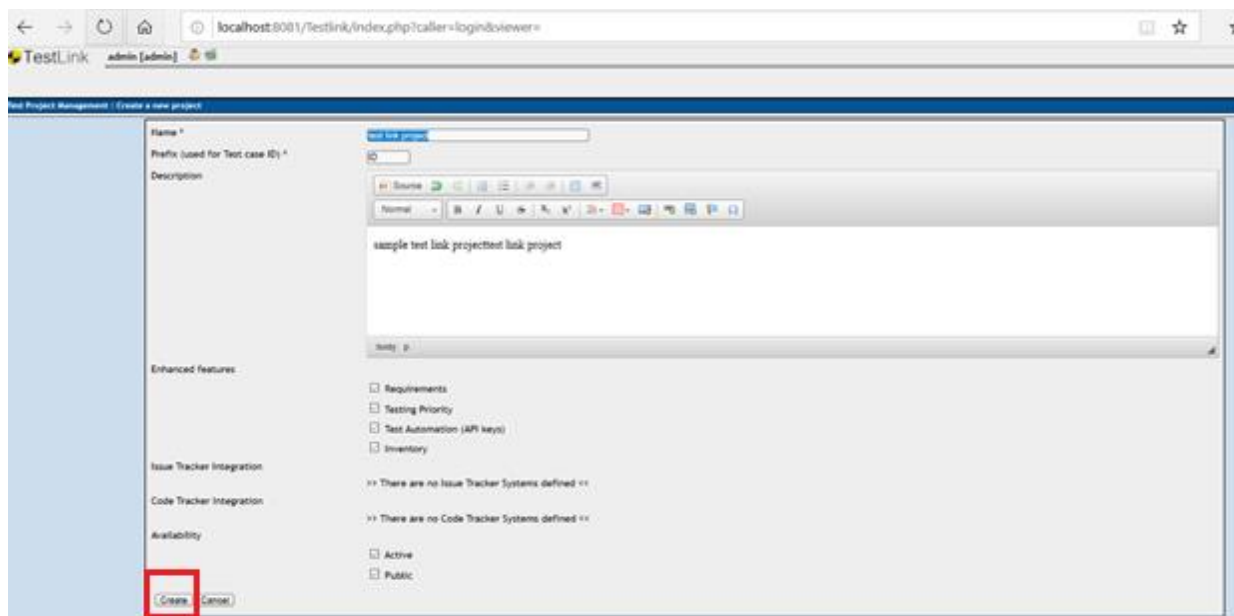
Adding a project to TestLink

Step 1:

Enter the following details into Create a Project form:

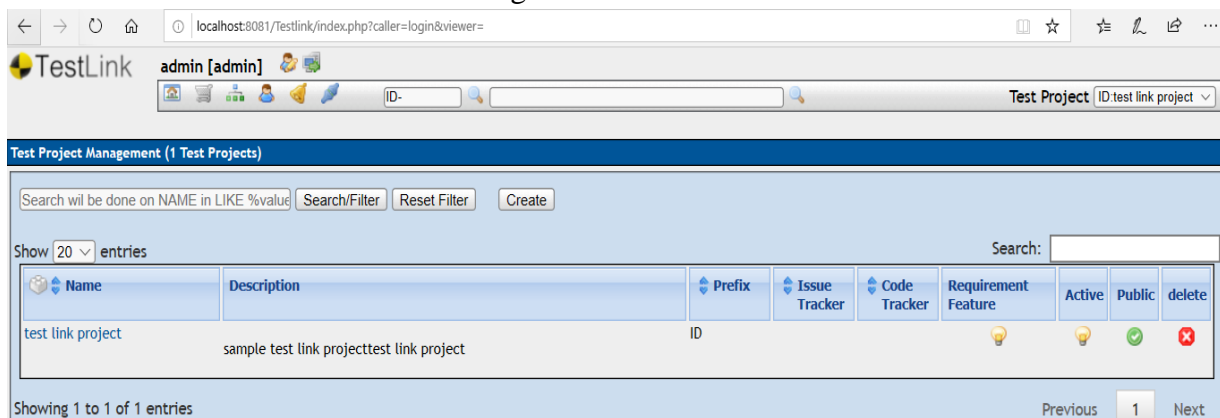
- **Name** – Should be a unique project name.
- **Prefix** – Is used for test case ID to identify the test cases.
- **Project description** – Details about the project.
- **Enhanced features** – You can check the checkboxes based on the requirement of the project. It allows to select which features you want such as requirement, automation, etc.
- **Issue tracker** – If any issue tracker is linked with TestLink, it will be displayed here.

Select the Availability option and then click the Create button as shown in the following screenshot:



Step 2:

Clicking the Create button adds the project along with Delete and Active/Inactive switch for Requirement and Active features as shown in the following screenshot.



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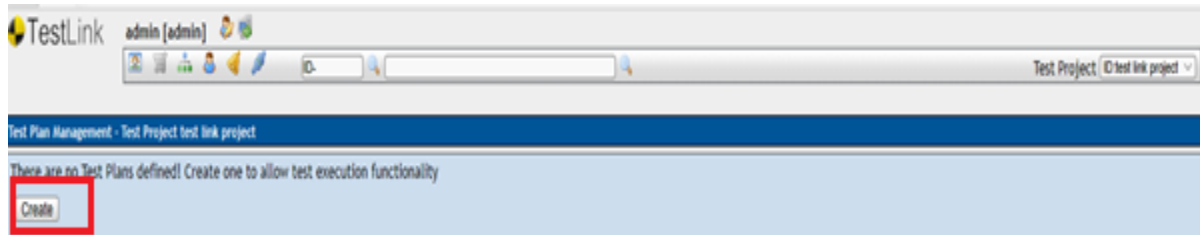
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Creating a Test Plan

To create a test plan, you should Create Test Plan Permission.

Step 1:

Go to Test Plan → Test Plan Management on the dashboard and click the Create button as shown in the following screenshot:



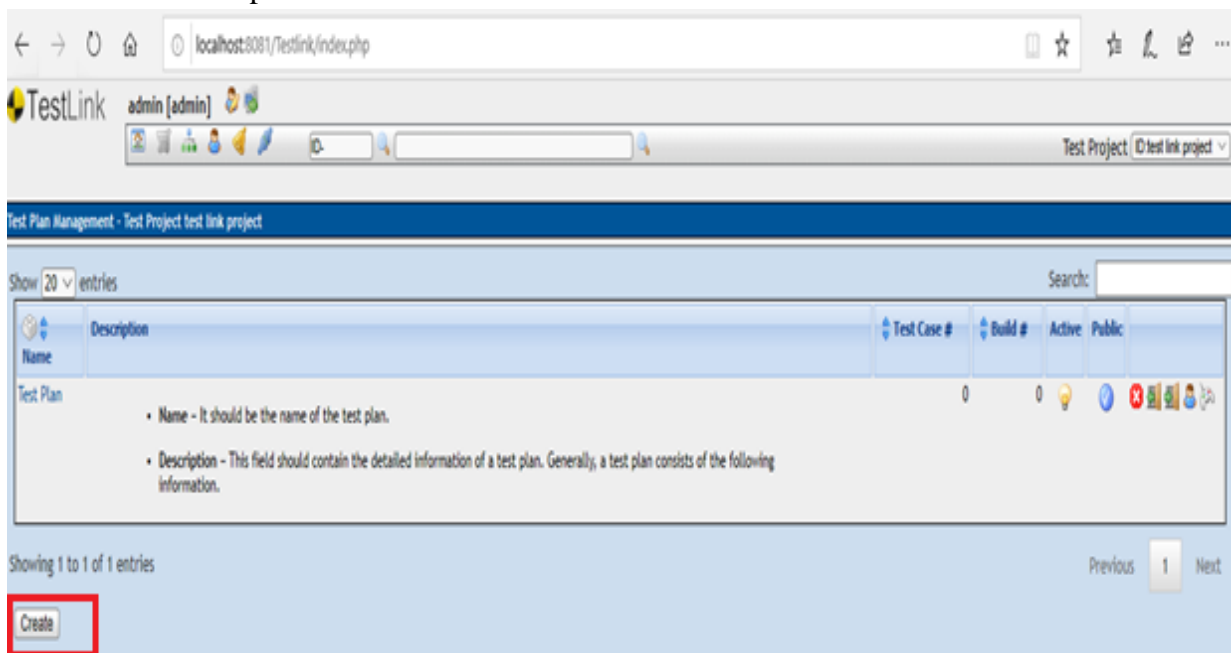
Step 2:

Enter the following details in the form:

- **Name** – The name of the test plan.
- **Description** – This field should contain the detailed information of a test plan. Generally, a test plan consists of an introduction, test plan identifier, test items, features to be tested, approach, and pass/fail criteria of items.

Step 3:

Click the Create button present at the bottom of the form.



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Creating a Test Suite

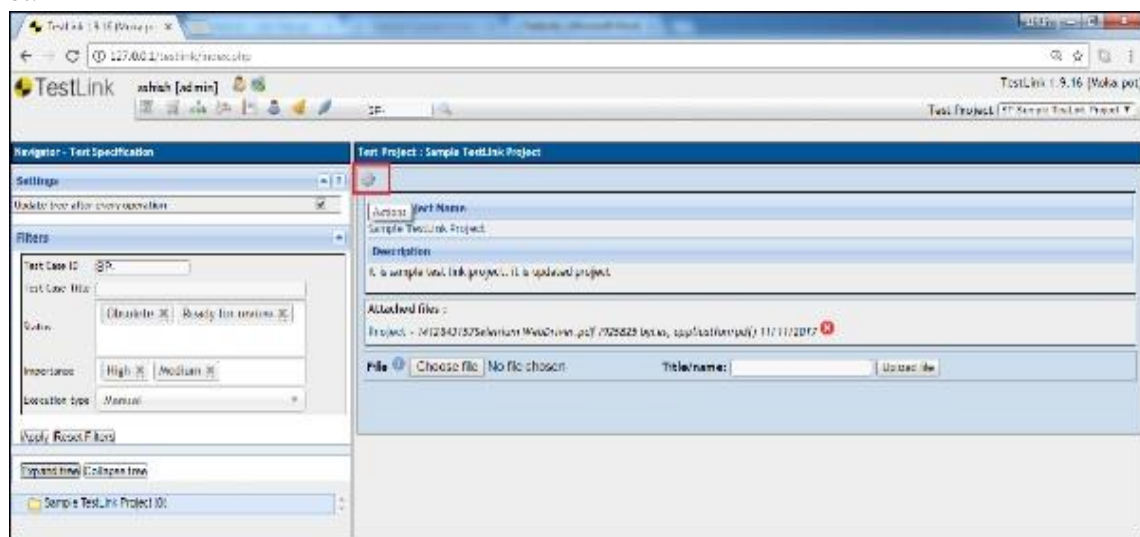
To create a Test Suite, you should Create Test Suites permission.

Step 1:

Navigate to Test Specification → Test Specification from the dashboard.

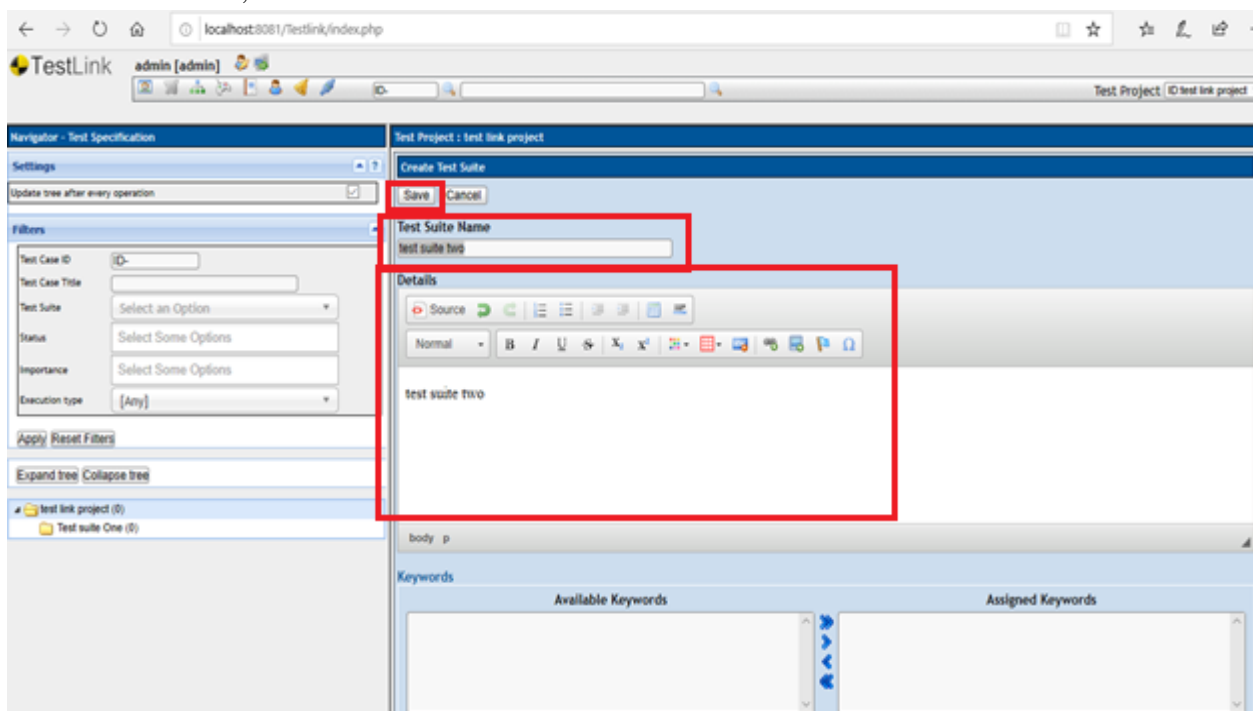
Step 2:

Click the Setting type icon  known as Actions, present on the right panel as shown in the following screenshot:



Step 3:

Enter Name and Details, and click Save to save test suite



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Creating a Test Case

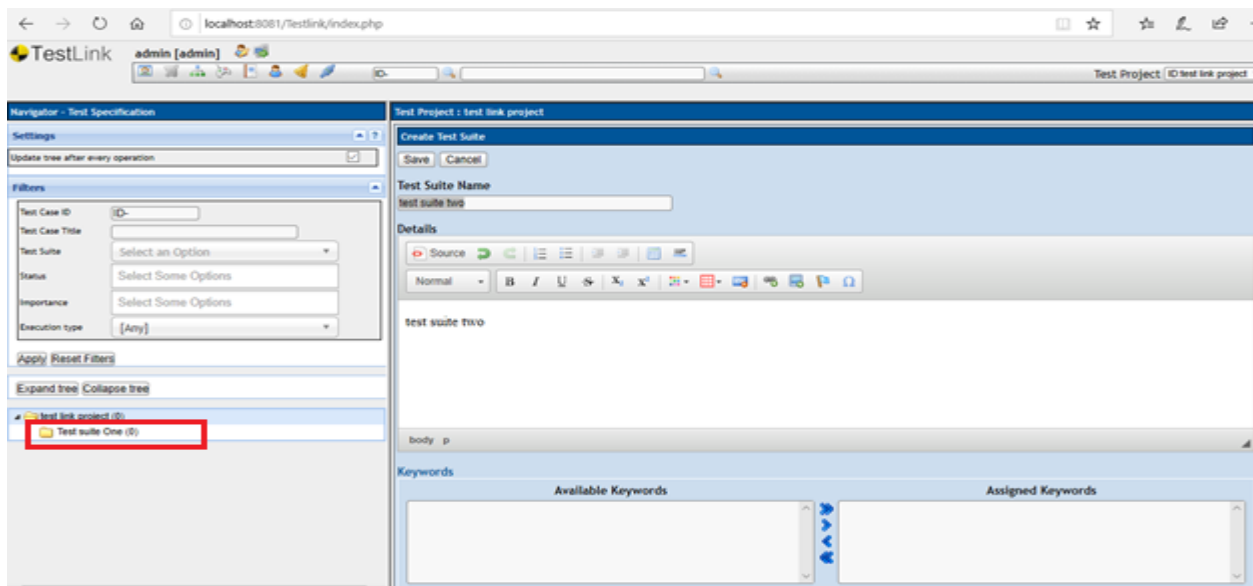
To create a Test Case, you should Create Test Cases permission.

Step 1:

Navigate to Test Specification → Test Specification from the dashboard.

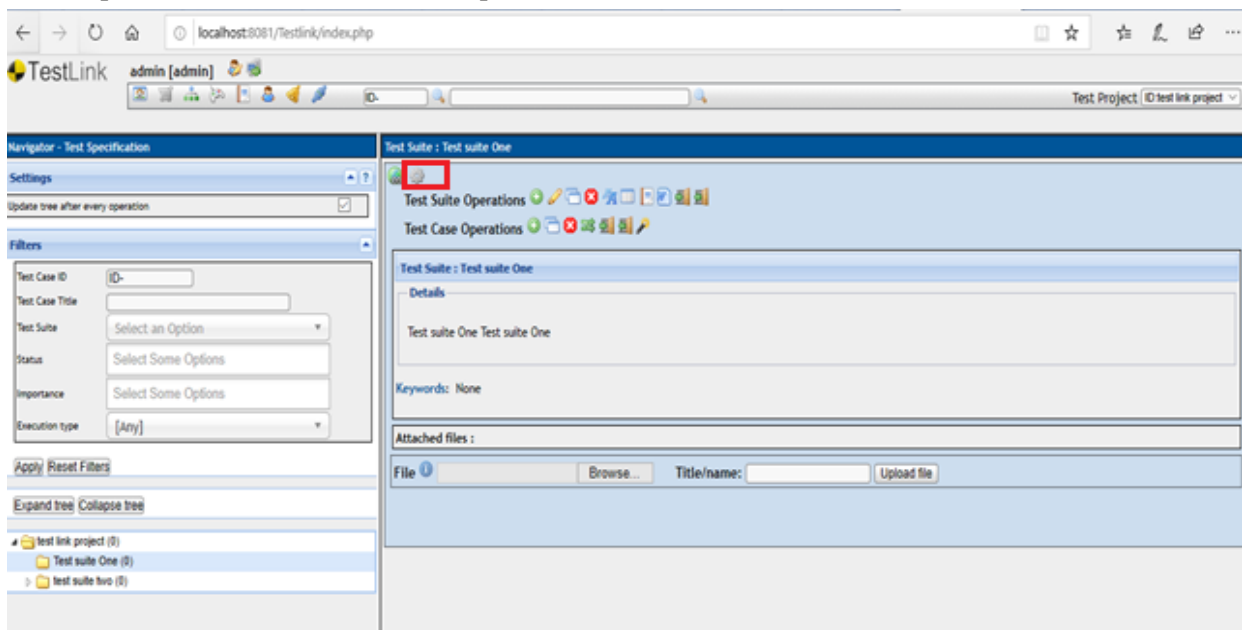
Step 2:

Select the test suite from the tree structure on the left side panel on the screen.



Step 3:

Click the Setting type icon known as Actions, present on the right panel of the screen as shown below. It will open Test Suite Operations as well as Test Case Operations.



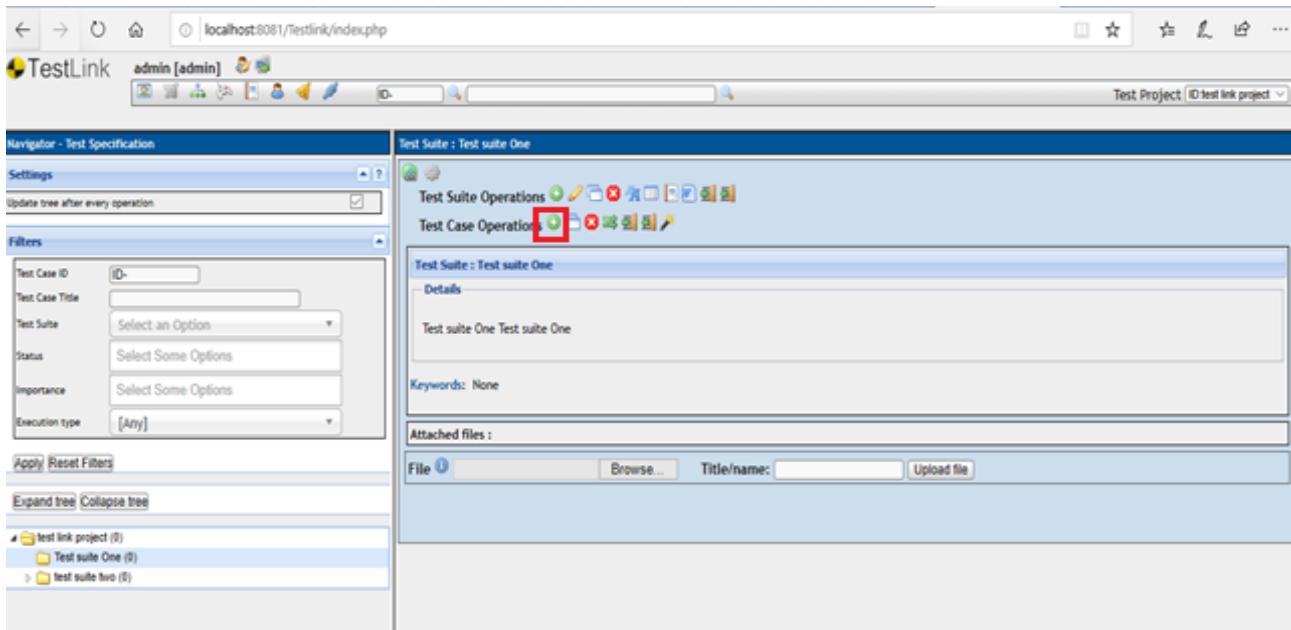
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Step 4:

Click the + icon of Test Case Operations to create a new test case as shown below.



Step 5:

Enter the data and click the Create button. Once you click the Create button, you can see the test case in the tree structure on the left side panel as well as the details are available on the right side of the screen.

