

Software Engineering Tools Lab

Assignment No-8

Module 5- Software testing using tools

PRN: 2020BTECS00069

Name: Yashraj Patil

Q 1. What are the prerequisites for installing the TestLink tool.

Operating System: Windows, Linux, or Mac OS X

Web Server: Apache or IIS

Database: MySQL, PostgreSQL, or Microsoft SQL Server

PHP: Version 5.6.x or higher

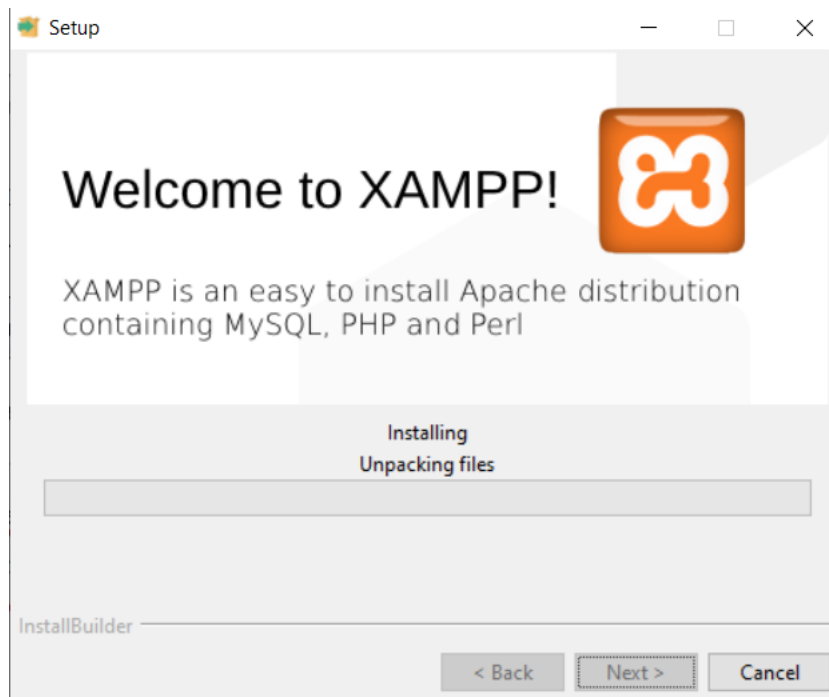
PHP Extensions: mbstring, gd, xml, mysqlnd, mysqli or pdo_mysql, zip

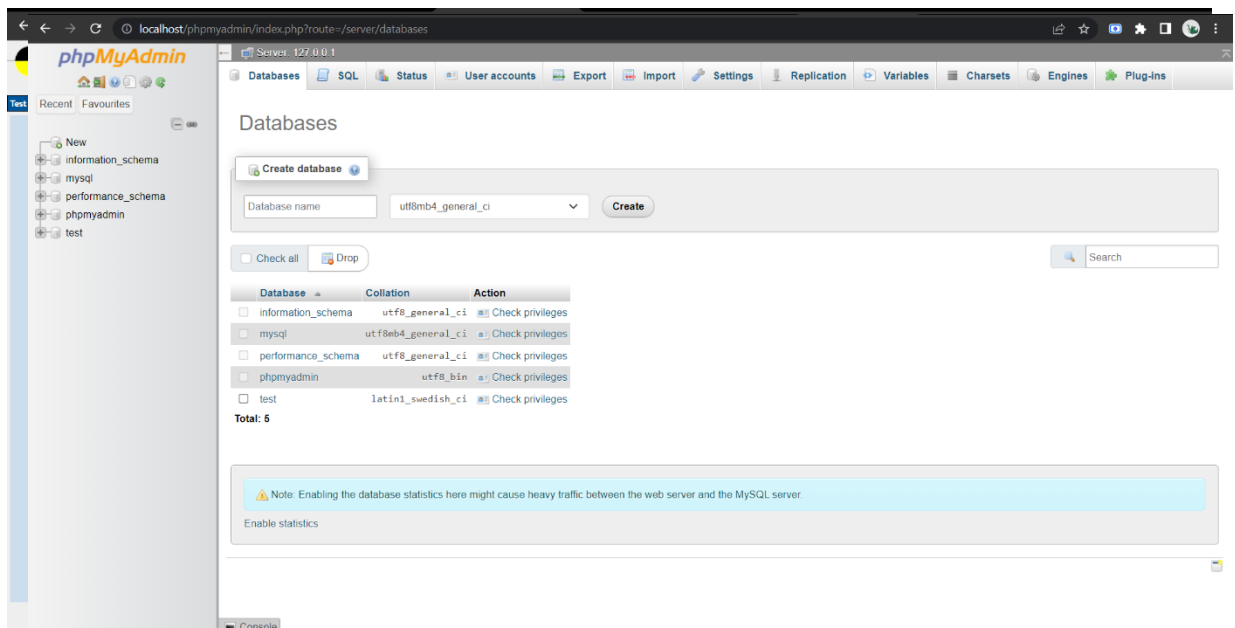
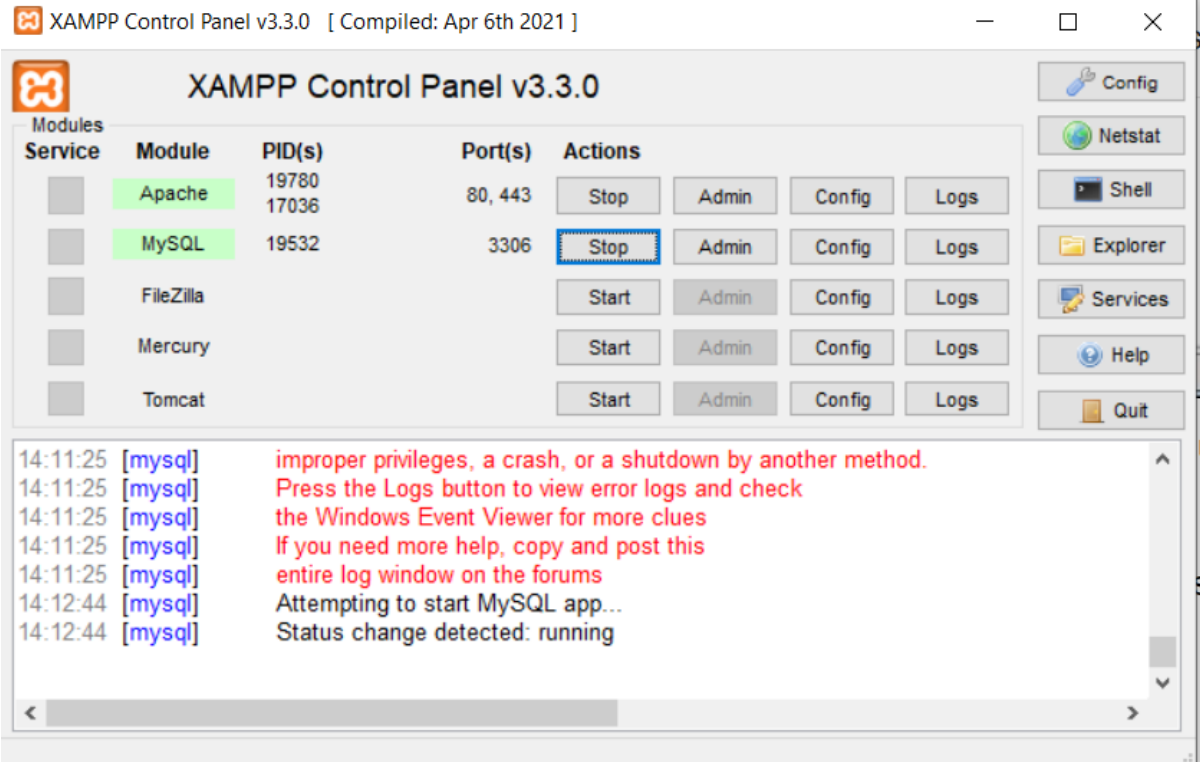
Browser: Any modern web browser such as Chrome, Firefox, or Safari

Q 2. Install TestLink tool on your machine (Provide screen shots for successful installation and login)

1. Download the latest stable version of TestLink from the official website (<https://testlink.org/>).
2. Extract the downloaded ZIP file to a directory on your machine.
3. Copy the extracted TestLink folder to your web server's document root directory.
4. Create a new database for TestLink and grant a user with necessary privileges to access the database.
5. Rename the configuration file config.inc.php.sample to config.inc.php and modify the necessary configuration settings such as database connection details.
6. Open a web browser and navigate to the TestLink installation URL (e.g., <http://localhost/testlink/install/index.php>).
7. Follow the on-screen instructions to complete the installation process, providing the necessary details such as database connection details and administrator account information.

8. Once the installation is complete, login to TestLink using the administrator account that you created during the installation process.





TestLink 1.9 (Prague) : admin [admin] [My Settings | Logout]

Test Project Management : Create a new project

Name *

Prefix (used for Test case ID) *

Project description

Enhanced features

Availability

Create Cancel

* Mandatory fields

Q 3. Using TestLink tool create multiple test cases (at least 10) on any application/project that you have implemented.

Perform below tasks

a. **Create New test project as SETProject**

TestLink 1.9 (Prague) : admin [admin] [My Settings | Logout]

Test Project Management : Create a new project

Name * SETProject

Prefix (used for Test case ID) * TC

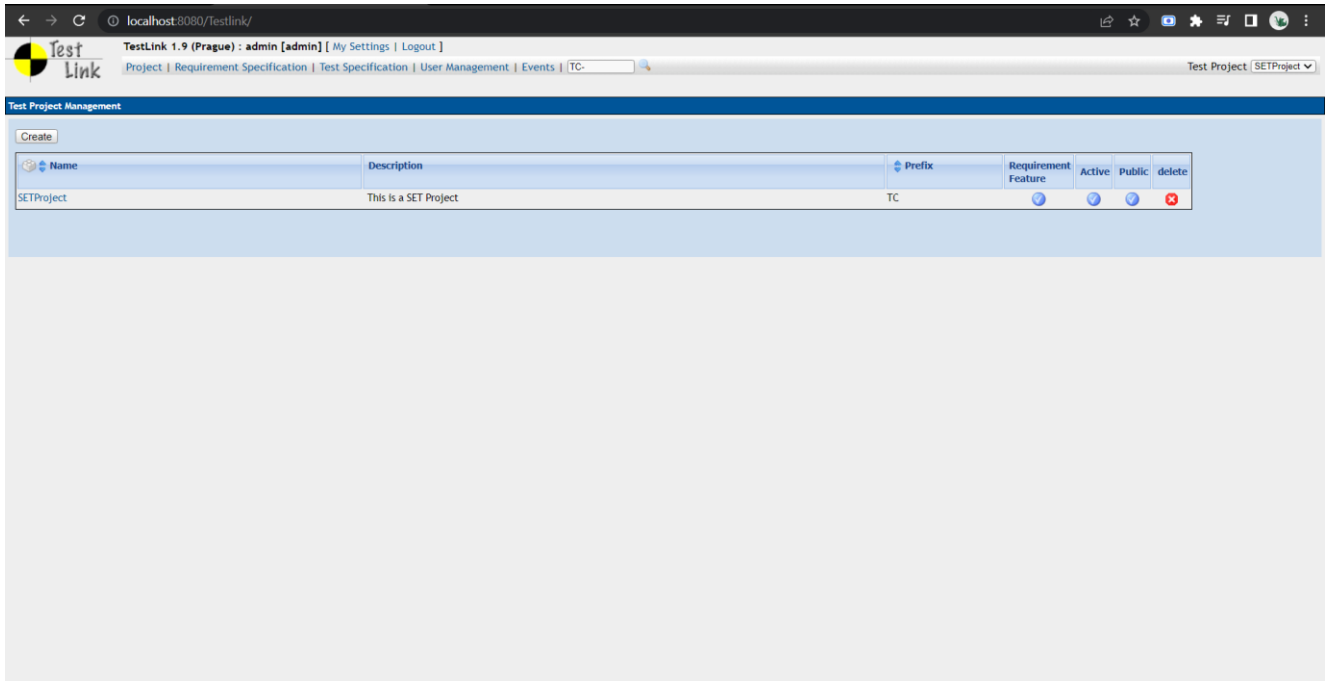
Project description

Enhanced features

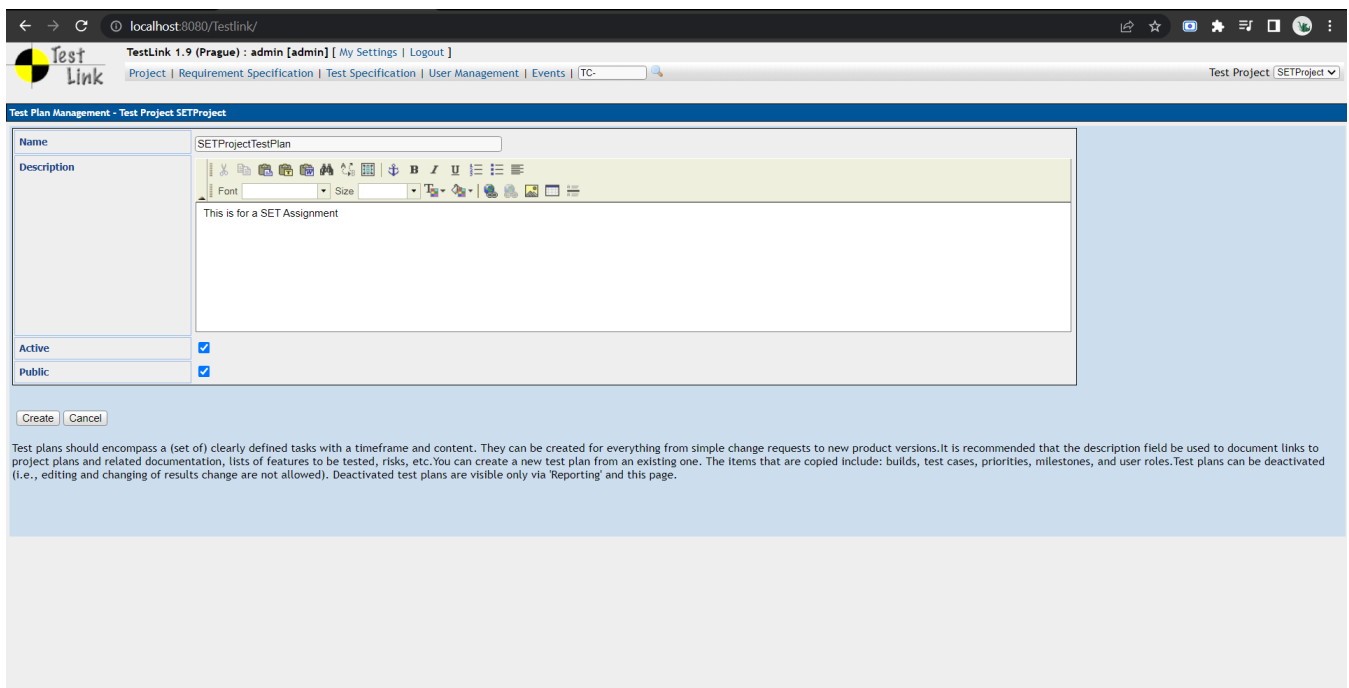
Availability

Create Cancel

* Mandatory fields



b. Create a test plan as SETProjectTestPlan



c. Create a build as SETProjectBuild

The screenshot shows the TestLink 1.9 (Prague) web interface. The browser address bar displays 'localhost:8080/Testlink/index.php'. The page header includes the TestLink logo, user information 'admin [admin]', and navigation links: 'Project | Requirement Specification | Test Specification | Test Execution | Test Reports | User Management | Events | TC-'. The 'Test Project' dropdown is set to 'SETProject'.

The main content area is titled 'Build management - Test Plan : SETProjectTestPlan'. It features a 'Create a new Build' form with the following fields:

- Title:** SETProjectBuild
- Description:** A rich text editor containing the text 'This is for SET Assignment'.
- Active:** ☒
- Open:** ☒
- Release date:** A date picker field.

Below the form, a note states: 'A build is identified by its title. Each build is related to the active Test Plan. Description should include: list of delivered packages, fixes or features, approvals, status, etc. A build has two attributes: Active / Inactive - defines whether the build can be used. Inactive builds are not listed on the execution and reports pages. Open / Closed - Only for open builds, test results can be modified.' At the bottom of the form are 'Create' and 'Cancel' buttons.

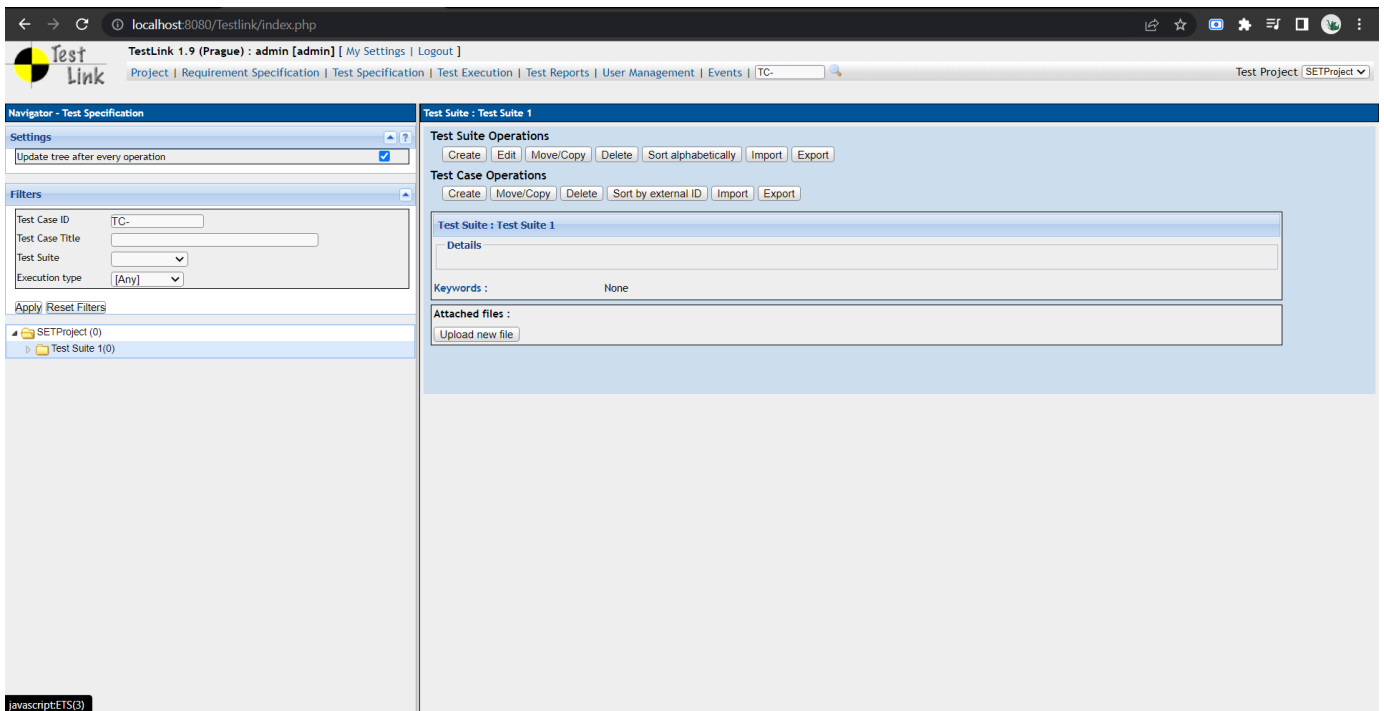
d. Create test suite as Test Suite 1 under SETProject

The screenshot shows the TestLink 1.9 (Prague) web interface. The browser address bar displays 'localhost:8080/Testlink/index.php'. The page header includes the TestLink logo, user information 'admin [admin]', and navigation links: 'Project | Requirement Specification | Test Specification | Test Execution | Test Reports | User Management | Events | TC-'. The 'Test Project' dropdown is set to 'SETProject'.

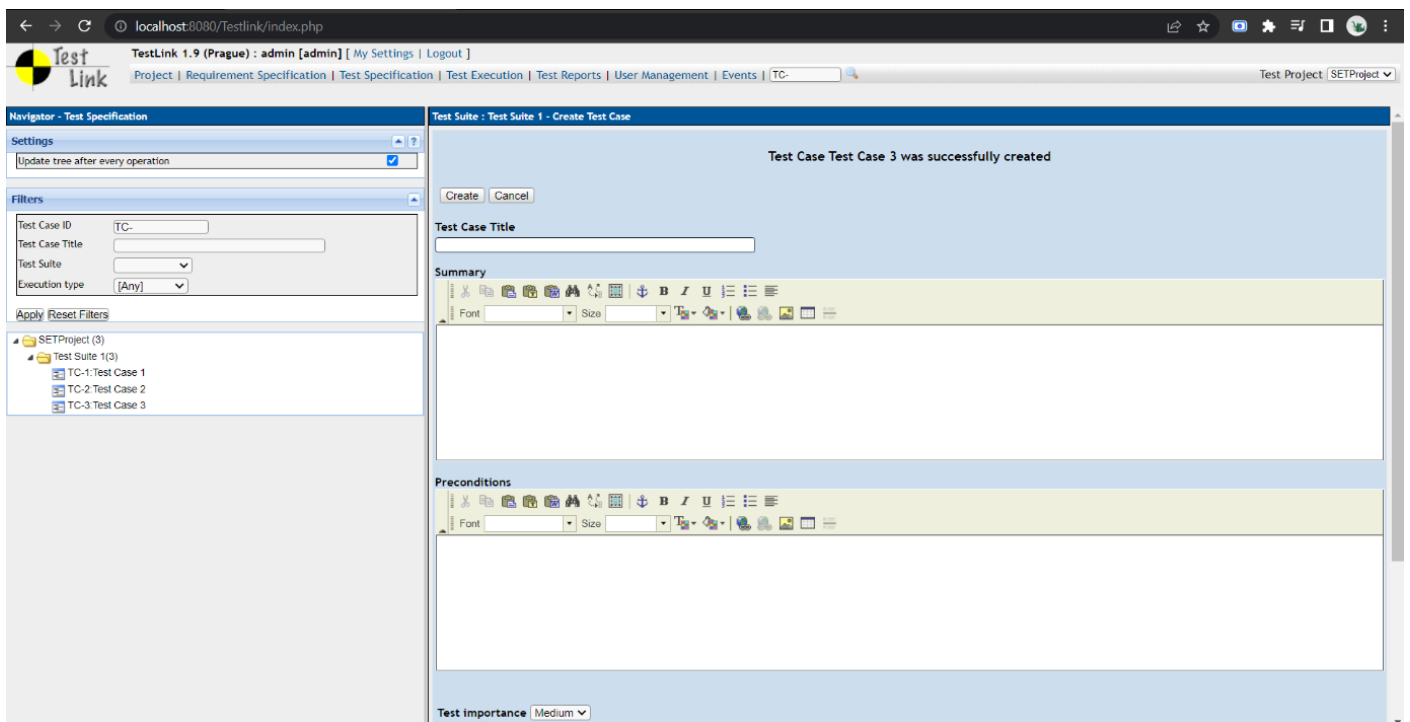
The main content area is titled 'Test Project : SETProject'. It features a 'Create Test Suite' form with the following fields:

- Test Suite Name:** Test Suite 1

Below the form, there is a 'Details' section with a rich text editor. At the bottom, there are two panels for 'Keywords': 'Available Keywords' and 'Assigned Keywords', each with a list box and a 'Move' button.



d. Create Test cases in TestLink Tool



e. Assign created Test Cases to the test plan SETProjectTestPlan

The screenshot shows the TestLink 1.9 (Prague) web interface. The browser address bar indicates the URL is localhost:8080/Testlink/index.php. The page title is 'TestLink 1.9 (Prague) : admin [admin] [My Settings | Logout]'. The breadcrumb navigation shows: Project | Requirement Specification | Test Specification | Test Execution | Test Reports | User Management | Events | TC-. The 'Test Project' dropdown is set to 'SETProject'. The left sidebar shows the 'Navigator - Test Specification' with filters for Test Case ID, Test Case Title, Test Suite, and Execution type. The main content area displays 'Test Case: Test Case 1' and a dialog titled 'Add Test Case Version to Test Plans'. The dialog shows 'TC-1: Test Case 1 - Test Plan usage' with a table containing one row: Version 1, Test Plan SETProjectTestPlan, and Platform. A 'Cancel' button is visible at the bottom of the dialog.

f. Create different roles as given below in the TestLink

The screenshot shows the 'User Management' section of the TestLink 1.9 (Prague) web interface. The breadcrumb navigation shows: Project | Requirement Specification | Test Specification | Test Execution | Test Reports | User Management | Events | TC-. The 'Test Project' dropdown is set to 'SETProject'. The 'User Management' section has tabs for 'View Users', 'View roles', 'Assign Test Project roles', and 'Assign Test Plan roles'. The 'View Users' tab is active, showing a table of users. The table has columns: Login, First Name, Last Name, Email, Role, Locale, Active, and disable. The table contains three rows of data. Below the table is a 'Create' button.

Login	First Name	Last Name	Email	Role	Locale	Active	disable
admin	Testlink	Administrator		admin	English (wide/UK)		
Raj	Raj	Patil	yspedits82@gmail.com	test designer	English (wide/UK)		
Yash	Yashraj	Patil	yashrajpatil056@gmail.com	tester	English (wide/UK)		

g. Write a requirements in TestLink

The screenshot shows the TestLink 1.9 (Prague) interface. The top navigation bar includes links for Project, Requirement Specification, Test Specification, Test Execution, Test Reports, User Management, Events, and TC-. The left sidebar shows the 'Navigator - Requirement Specifications' with a 'Filters' section containing fields for Document ID, Title, Status, Requirement Type, Req. Spec. Type, Expected no. of testcases, Has relation of type, and Test Case ID. The main area is titled 'Create Requirements Specification Test Project : SETProject'. It contains a 'Document ID' field with the value '1', a 'Title' field with the value 'Requirement 1', and a 'Scope' text area with the text 'These requirements are needed for SET Project'. Below the scope is a 'Type' dropdown menu set to 'User Requirement Specification'. At the bottom are 'Save' and 'Cancel' buttons.

f. Execute test cases

The screenshot shows the TestLink 1.9 (Prague) interface for executing test cases. The top navigation bar is the same as the previous screenshot. The left sidebar shows the 'Test Plan : SETProjectTestPlan [Build : SETProjectBuild]' with a 'Filters' section and a tree view showing the test plan structure. The main area is titled 'Build description' and contains a 'Test Suite : Test Suite 1 /' section. Below this is a 'Test Case ID TC-1 :: Version : 1' section. The 'Last execution (any build) - Build :' section shows 'Not Run'. The 'Summary' section contains 'Sample test case 1'. The 'Preconditions' section contains 'Execution type : Manual'. The 'Notes / Description' section is empty. The 'Result' section has radio buttons for 'Not Run' (selected), 'Passed', 'Failed', and 'Blocked'. At the bottom are 'Save execution' and 'Save and move to next' buttons. An 'Important Notice' banner at the bottom states: 'Once a Result is updated from 'Not Run' to another value, you cannot set it back to 'Not Run'. You can still set the Result to any other value.'

g. Generate a test report in excel format.

The screenshot displays the TestLink 1.9 (Prague) web interface. The browser address bar shows 'localhost:8080/Testlink/index.php'. The page header includes the TestLink logo, the version 'TestLink 1.9 (Prague)', the user 'admin [admin]', and links for 'My Settings' and 'Logout'. A navigation menu contains links for 'Project', 'Requirement Specification', 'Test Specification', 'Test Execution', 'Test Reports', 'User Management', 'Events', and 'TC-'. The 'Test Project' dropdown is set to 'SETProject'.

The main content area is titled 'Reports and Metrics'. On the left, there is a sidebar with a 'Report Format' dropdown set to 'MS Excel' and a 'Print' button. Below this, the 'Test Plan' is set to 'SETProjectTestPlan', and there is a checkbox for 'Show inactive test plans'. A list of report types is shown: 'General Test Plan Metrics', 'Query Metrics', 'Test result matrix', 'Failed Test Cases', 'Blocked Test Cases', and 'Not run Test Cases'.

The right pane, titled 'Description of Test Reports and Metrics', contains the following text:

Reports are related to a Test Plan (defined in top of navigator). This Test Plan could differ from the current Test Plan for execution. You can also select a Report format:

- **Normal** - report is displayed in web page
- **OpenOffice Writer** - report imported to OpenOffice Writer
- **OpenOffice Calc** - report imported to OpenOffice Calc
- **MS Excel** - report imported to Microsoft Excel
- **HTML Email** - report is emailed to user's email address
- **Charts** - report include graphs (flash technology)

The print button activates printing of a report only (without navigation).

There are several separate reports to choose from, their purpose and function are explained below.

Test Plan

The document 'Test Plan' has options to define a content and a document structure.

Test Report

The document 'Test Report' has options to define a content and document structure. It includes Test cases together with test results.

General Test Plan Metrics

This page shows you only the most current status of a Test plan by test suite, owner, and keyword. The most 'current status' is determined by the most recent build test cases were executed on. For instance, if a test case was executed over multiple builds, only the latest result is taken into account.

'Last Test Result' is a concept used in many reports, and is determined as follows:

- The order in which builds are added to a Test Plan determines which build is most recent. The results from the most recent build will take precedence over older builds. For example, if you mark a test as 'fail' in build 1, and mark it as 'pass' in build 2, it's latest result will be 'pass'.
- If a test case is executed multiple times on the same build, the most recent execution will take precedence. For example, if build 3 is released to your team and tester 1 marks it as 'pass' at 2PM, and tester 2 marks it as 'fail' at 3PM - it will appear as 'fail'.
- Test cases listed as 'not run' against a build are not taken into account. For example, if you mark a case as 'pass' in build 1, and don't execute it in build 2, it's last result will be considered as 'pass'.

The following tables are displayed:

- **Results by top level Test Suites** Lists the results of each top level suite. Total cases, passed, failed, blocked, not run, and percent completed are listed. A 'completed' test case is one that has been marked pass, fail, or block. Results for top level suites include all children suites.
- **Results By Keyword** Lists all keywords that are assigned to cases in the current test plan, and the results associated with them.
- **Results by owner** Lists each owner that has test cases assigned to them in the current test plan. Test cases which are not assigned are tallied under the 'unassigned' heading.

Testlink Report:

<https://drive.google.com/drive/folders/1Ge2o7Y0uKrupP954d5DneEYuvHdeWPNd?usp=sharing>