A picture containing text, clipart

Description automatically generated

**Formative Assignment 3**

|  |  |
| --- | --- |
| Module Name | Application Implementation (Agile Project Management) |
| Course Name | Bachelor of Technology in Software Engineering |
| Assignment Title | Test Preparation to test the community portal |

|  |  |
| --- | --- |
| Learner Name |  |

|  |
| --- |
| Learner declaration |
| I certify that the work submitted for this assignment is my own and research sources are fully acknowledged.  Student signature: Date: |

## Purpose of this assignment

To demonstrate your capabilities in the following areas:

* Preparing Test Cases and Scripts to test a software application

## Submission Format

The submission is in the form of an individual written report with examples and illustrations. This should be written in a concise, formal academic style using single spacing and font size 12.You are required to make use of headings, paragraphs, and subsections as appropriate, and all work must be supported with research and referenced using the Harvard referencing system. Please also provide a bibliography using the Harvard referencing system.

## Submission file

Submission File Name format: Cohort Code \_Full Name\_Assignment Number

E.g.: AIM-1222A\_AliceTan\_A3.docx

## Scenario

## You have been approached by ‘ABC Jobs Pte Ltd’ as a website developer to develop a community portal for Software Developers. For this module the scope is to Design, Develop, Implement & Document the data-driven website using the framework Spring boot and react.

The Scope of the Project is to design a Community Portal Similar to Linkedin.com. Users will be able to register in the portal using the Registration Page. Users of the portal can search for other users using various parameters such as First Name, Last Name, Company Name, City & Country. Users will be able to view the Public Profile of users after searching them. The portal allow users to login, request for forgotten password and Update their profile information.

The overview of the project is as below

There are 2 types of users in this Community portal. They are

1. Software Programmer
2. Administrator

Software Programmer should be able to perform following functions in the portal

1. Allow the programmers to register in the portal, show a thank you page & send a registration confirmation email.
2. Search & Find Other Programmers after login and view their profile.
3. Provide Login Page
4. Provide password retrieval functionality.
5. Update their Profile after logging in.

**Following Functionality is part of Database Design & will be enhanced as features as required in the Capstone Project, depending on time availability.**

1. Send Messages to Each Other on the Portal
2. Create Threads & Post Replies to a Thread
3. Post Job Opportunities in the Portal

## Administrator should be able to perform following functions in the portal

## Administer user data.

## Send bulk email inviting programmers to register on the community portal

## The portal consist of the following Key pages (For Reference)

## Community Portal Home Page

## Registration Page

## Registration Confirmation Page (with Registration Confirmation Email)

## Login Page

## Reset Password Page

## Reset Password Confirmation Page

## Update Profile Page

## Search Users Page

## List Search Results

## Public Profile Page

## *Pages for enhancement (depending on time availability)*

## *Send Messages*

## *Read Messages*

## *Post thread in Message Board*

## *List threads in Message Board*

## *Read A Thread*

## *List Job Opportunities & Responses*

## *Post Job Opportunities*

1. *Apply for Jobs*

You will be required to:

Create a testing plan document for the community portal project. The document should include the following sections:

1. Test Metrics: Identify quantitative measures used to estimate the progress, quality, productivity and health of the software testing process
2. Test Schedule: Create a schedule that outlines the timeline for different testing activities.
3. Test Cases: Develop a set of test cases that cover different scenarios and functionalities of the community portal.
4. Test Data: Identify the test data required for executing the test cases.
5. Test Execution: Explain **how** the test cases will be executed, including the test environment setup and execution process.

## Evidence to exhibit

* Test Plan with test cases

1.Test Metrics: Identify quantitative measures used to estimate the progress, quality, productivity and health of the software testing process

|  |  |
| --- | --- |
| TEST METRIC | TESTING PHASE |
| Number of test cases | Test Development Phase |
| Number of Test cases Passed | Test Execution Phase |
| Number of Test cases Executed | Test Execution Phase |
| Number of Test cases Failed | Test Execution Phase |
| Number of Test cases under Investigation | Test Development Phase |
| Number of Test cases Blocked | Test Development Phase / Execution Phase |
| Number of Test cases Re- executed | Regression Phase |
| Number of First run Failures | Test Execution Phase |
| Total Executions | Test Reporting Phase |
| Total Passes and Failures | Test Reporting Phase |
| Test case Execution time | Test Reporting Phase |
| Test Execution time | Test Reporting Phase |

Defect Rate: Total No of test 30

|  |  |
| --- | --- |
| % of Test cases Passed | 20 |
| %of Test Coverage | 20 |
| % of Defects corrected | 10 |
| %of Test cases Blocked | 5 |
| % of Rework | 5 |
| % of Test Effectiveness | 66% |

1. Test Schedule: Create a schedule that outlines the timeline for different testing activities.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *Sno* | *Test Description* | Optimal scheduling Time | Start Date | End Date |
| *1* | *UATtest* | *5* | 22-7-2023 |  |

1. Test Cases: Develop a set of test cases that cover different scenarios and functionalities of the community portal.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1.  Functional Testing - UAT test cases** | | |  |  |
| **Test Id** | **Test Scenario** | **Test Objective** | **Technique** | **Expected Result** |
| 1 | TS001 | Identify whether user can login to the portal with registered credentials. | Functional Testing | Upon attempt of authentication, users will be authenticated to the portal and given authorization of member or user as default. |
| 2 | TS002 | Identify whether user can successfully register or Not | Functional Testing | Upon registration, they will be able to use the registered credentials to authenticate to the User to System |
| 3 | TS003 | Identify whether user can successfully add result | Functional Testing | Upon authentication, users will be able to Add Result details. |
| 4 | TS004 |  |  |  |

1. Test Data: Identify the test data required for executing the test cases.

Test Cases :

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Scenario ID** | **Test Case ID** | **Test Case** | **Preconditions** | **Test Step** | **Test Data** | **Expected Results** | **Actual Results** | **Pass / Fail** |
| TS001 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

1. Test Execution: Explain **how** the test cases will be executed, including the test environment setup and execution process.