Assignment - 3

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| **Unit Number and Title:** | Application Implementation |
| **Academic Year:** | 2022 |
| **Unit Assessor:** | Arvinder Kaur |
| **Project Title:** | IU6: Test Planning |
| **Submission Date:** | 18 August 2022 |
| **Date:** | 18 August 2022 |

**Project scenario:**

ABC Jobs Pte Ltd as a website developer to develop a community portal for Software Developers.

**Project Objectives:**

The scope of this project is to design a community portal similar to Linkedin.com. The website should allow users to register, login, change password, update profile, search and view other users.

Task Statement: Develop a Phase Test Plan for testing the application.

Solution

1. **Objective of testing**

Validate and verify system’s functionality working properly according to client’s requirements.

1. **Goal of testing**

* Make sure all the features are working
* Finding errors and bugs
* Enhance the quality of the applications
* Verifies the customers satisfaction with the developed software/application

1. **Scope of testing**

**Features which will be tested in this plan**

1. Registration
2. Login
3. Logout
4. Reset Forgotten Password

**Features which will not to be tested**

1. Posting Job
2. Applying Job
3. Send Messages
4. Post Message in Message Board
5. Post Thread in Message Board
6. **Testing approaches to achieve the goal,**
   1. Unit testing

Unit testing is a [software](https://www.techtarget.com/searchapparchitecture/definition/software) development process in which the smallest testable parts of an [application](https://www.techtarget.com/searchsoftwarequality/definition/application), called units, are individually and independently scrutinized for proper operation. This testing methodology is done during the development process by the software developers and sometimes QA staff.  The main objective of unit testing is to isolate written code to test and determine if it works as intended.

Unit testing is an important step in the development process, because if done correctly, it can help detect early flaws in code which may be more difficult to find in later testing stages.

* 1. UAT testing  
     **User Acceptance Testing (UAT)** is a type of testing performed by the end user or the client to verify/accept the software system before moving the software application to the production environment. UAT is done in the final phase of testing after functional, integration and system testing are done.

1. **Testing Criteria** 
   1. Entry criteria

Entry criteria for testing can be defined as “Specific conditions or on-going activities that must be present before a process can begin.” The Software Testing Life Cycle (STLC) specifies the entry criteria required during each testing phase. It also defines the time interval or the expected amount of lead-time to make the entry criteria item available to the process.

The Inputs from the testing phase include:

* Defined and Approved Requirements
* Test Plan
* Test Cases and Test Data
* Test Tools
* Testable Code with Appropriate Test Environment
* Executing the primary functional/business flows successfully by leveraging various test inputs and ensuring that they are working fine
  1. Exit Criteria

Exit criteria in testing are often viewed as a single document commemorating the end of a life cycle phase. It can be defined as “The specific conditions or on-going activities that should be fulfilled before completing the software testing life cycle. STLC specifies which exit criteria is required at each testing phase”. The exit criteria can identify the intermediate deliverables and enable you to track them as independent events.

* 1. Suspension Criteria

Suspension criteria specify the criteria to be used to suspend all or a portion of the testing activities while resumption criteria specify when testing can resume after it has been suspended.

 Unavailability of external dependent systems during execution.

 When a defect is introduced that cannot allow any further testing.

 Critical path deadline is missed so that the client will not accept delivery even if all testing is completed.

 A specific holiday shuts down both development and testing.

* 1. Resumption Criteria

Resumption is resume or restart of the process which is invoked after the suspension criteria are met. As the name suggests resumption is the contrary process of suspension. It involves verification of the defect by which suspension was invoked during the testing process.

* 1. Test Metrics
* Number of test cases
* Number of Test cases Passed
* Number of Test cases Executed
* Number of Test cases Failed
* Number of Test cases under Investigation
* Number of Test cases Blocked
* Number of Test cases Re- executed
* Number of First run Failures
* Total Executions
* Total Passes and Failures
* Test case Execution time
* Test Execution time

**f. Test Deliverables**

1. Test Plan
2. Test schedules
3. Test scripts

Detailed Test Plan

1] Test Scenario: -

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| Requirements | Test Scenario ID | Test Scenario | Number of test cases |
| Functional Testing | TS001-Unit testing | Ensure that user enters correct data in the registration page | 3 |
| TS002-UAT testing | 1. Check that a navigation menu is provided on each page and is consistent. | 3 |

**Scenario -1:- Unit Testing**

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| Test Scenario | Ensure that user enters correct data in the registration page |
| TS001 |
| Test Cases | Unit Testing |
| TC001 | Check all the mandatory fields are entered |
| TC002 | Check the email-address validation working correctly |
| TC003 | Check post submission loading of thank you page |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Scenario ID | Test Case ID | Test Case | Preconditions | Test Step | Test Data | Expected Results | Actual Results | Pass / Fail |
| TS001 | TC001 | Test Case 1 | The user should have URL of website and opened a homepage of the abcjobs.com | 1. Type www.abcjobs.com. 2. Click “Registration” in website home page linked to registration page. 3. Enter all the fields. 4. Click submit. | Email = [user@email.com](mailto:user@email.com)  Password=”abc123”  First name = test  Last name = user  Country = Indonesia  City = Bali | User should land to login page | As expected | Pass |
| Email =  Password=”abc123”  First name = test  Last name = user  Country = Indonesia  City = Bali | It will display error “Email is required” | As expected | Pass |
| TS001 | TC002 | Test case 2 | Open URL In browser | 1. Enter URL 2. Click on registration page 3. Enter all details 4. Enter submit button | Email = [user@email.com](mailto:user@email.com)  Password=”abc123” | It will display error “this email address has already been taken” | As expected | Pass |
| TS001 | TC003 | Test Case 3 | The user should have URL of website and opened a homepage of the abcjobs.com | 1. Type www.abcjobs.com. 2. Click “Registration” in website home page linked to registration page. 3. Enter all the fields. 4. Click submit. | Email = [user2@email.com](mailto:user2@email.com)  Password=”abc123”  First name = test  Last name = user2  Country = Indonesia  City = Bali | After successfully registering, the user will be redirected to thank you page | As expected | Pass |

**Scenario -2: - UAT Testing**

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| Test Scenario | Check that a navigation menu is provided on each page and is consistent. |
| TS002 |
| Test Cases | UAT Testing |
| UAT01 | Check each hyperlink menu is loading correct page |
| UAT02 | Verify that user with valid email and password can login successfully |
| UAT03 | User can reset their forgotten password |

**Test cases: -**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Scenario ID | Test Case ID | Test Case | Preconditions | Test Step | Test Data | Expected Results | Actual Results | Pass / Fail |
| TS002 | UATC01 | Check each hyperlink menu is loading correct page | The website is configured to Google chrome by Apache Server. | 1. Go to Google Chrome 2. Type www.abcjobs.com and enter | Click on Home link  Click on Login link  Click on Jobs | Loaded Home page  Loaded Login page  Loaded List job page | As expected | Pass |
| TS002 | UATC02 | Verify that user with valid email and password can login successfully | The website is configured to Google chrome by Apache Server. | 1. Go to Google Chrome 2. Type www.abcjobs.com and enter 3. Click login button 4. Enter email and password 5. Click login | Email = [user@email.com](mailto:user@email.com)  Password = abc123 | User successfully login into the website as User | As expected | Pass |
| TS002 | UATC03 | User can reset their forgotten password | The website is configured to Google chrome by Apache Server. | 1. Go to Google Chrome 2. Type www.abcjobs.com and enter 3. Click login button 4. Click reset password 5. Enter email 6. Click submit | Email = user@email.com | Password recovery will be send to the email | As expected | Pass |