**PRACTICAL: 10**

**Aim:** Design the following for given project (Black Box Testing)

1. TestCase
2. TestSuite
3. TestingStrategy

Also Design Test Cases using White Box Testing, Gray Box testing.

**Software Required:** NONE.

**Knowledge Required:** Basics of Software En gineering – testing techniques

**Project Name:** Community Management

# Theory:

### **Evaluation and Testing**

Introduction:

* + - Testing is the process used to validate and verify thesystem.
    - Testing is required in each phase of the software development. Always test plan required to test the entire system or components of system and identify the client requirements.

### **Objective of the Testing**

* + - To establish that the software worked satisfactorily as per the requirement of client.
    - To prove that the program is error free and user friendly with proper validations.
    - To certify that the software functioned correctly and could be used in production.

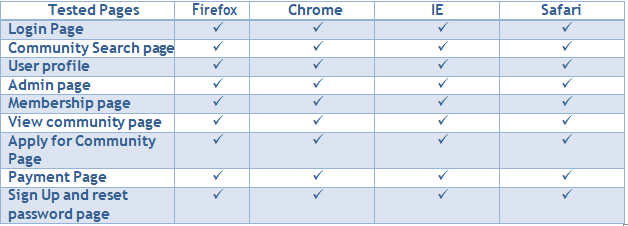
### **Front End Testing**

* + - Web based application mainly related with the web user interfaces(UI’s).
    - BlackboxtestingmethodologyisusedtochecktheUI’sfunctionsaccordingtothetest plan.
    - System was tested in module wise and the test cases are listedbelow.
  1. **Black-box testing** alludes to tests that are conducted at the software interface. They are used to determine that software functional are operational, that input is properly accepted and output is correctly produced, and that the integrity of external information (e.g. database) is maintained. It does not consider the internal logic structure thatimportance.
  2. **White-box testing** of software is predicated on close examination of procedural detail. Logical paths through the software are tested by providing test cases that exercisespecific sets of conditions and/or loops. The status of the program may be examined at various points to determine if the expected or asserted status corresponds to the actualstatus.
  3. **Gray Box Testing** is a technique to test the software product or application with partial knowledge of the internal workings of anapplication.

In this process, context-specific errors that are related to web systems are commonly identified. It will increase the testing coverage by concentrating on all of the layers of any complex system. Gray Box Testing is a software testing method, which is a combination of both White Box Testing and Black Box Testing method.

* In White Box testing internal structure (code) isknown
* In Black Box testing internal structure (code) is unknown
* In Grey Box Testing internal structure (code) is partiallyknown
  1. **Browser Testing:** Browser testing carried out for implemented Online Job Portal System on all the latest browsers such as Firefox Chrome, IE 10 and Safari. As well as mobile friendly or responsive of the web pages also tested in browserlevel.

### **BrowserTesting:**



### **Test cases used to test login UI and function:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test** | **Test Case** | **Test** | | | |
|  |  | **Steps** | **Expected**  **response from the system** | **Actual**  **response from the system** | **Test Case status** |
| **1** | New user input details with valid email id and details | Enter correct credentials for user | Adds user details to the database, send email to user about the registration. | Adds user details to the database, send email to user about the  registration. | Success |
| **2** | New user input details with invalid email id and details | Enter incorrect credentials for user | Form validation display errors in relevant fields. System rejects input. | Form validation display errors in relevant fields.System  rejectsinput. | Success |
| **3** | New user tries to register with blank details | Leave the space blank | Form validation display errors in relevant fields. System rejects input. | Form validation display errors in relevant  fields. System rejects input. | Success |
| **4** | User tries to  register with an | Enter  credentials | Email address is  been validated | Email address  is been | Success |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | existing email address | same as other user | and notifies user. If exist asks to login. | validated and notifies user. If  exist asks to login. |  |
| **5** | Validate user password with confirm password field | Enter correct password with right conventions | If both password and confirm passwords are similar user can proceed. | If both password and confirm passwords are  similar user can proceed. | Success |
| **6** | User provides invalid username/password | Enter wrong credentials for each | Notifies user that the user name/ email or password is incorrect | Notifies user that the user name/ email or password is  incorrect | Success |
| **7** | User tries blank input and to login | Left field for Login | Notifies user that the user name/ email or password is blank | Notifies user that the user name/ email or password is  blank | Success |
| **8** | User clicks forgets user name or password | Forgot credentials rules are implanted | Provided input field to enter the email address of  the user. | Provided input field to enter the email address of  the user. | Success |

* 1. **Test cases used to test apply for user memberships.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test** | **Test Case** | **Test Steps** | |
|  |  | **Expected response from the system** | **Test Case Status** |
| **1** | Only registered user can apply for  membership | System will turn to registration and login page for user authentication | Success |
| **2** | Availability of options in memberships | System will provide the payment gateways according the type of membership selected | Success |
| **3** | Community formation | System will display various options for formation of a community | Success |

|  |  |  |  |
| --- | --- | --- | --- |
| **4** | Advertisement | According to the type of membership taken, system will provide the advertisement potions to upload | Success |
| **5** | Join a community | Search and join any community by clicking the join button | Success |
| **6** | Leave a community | System provides Leave option for leaving the community | Success |

### **Test cases used to test Administrator UI and functions:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test** | **Test Case** | **Test Steps** | |
|  |  | **Expected response from the**  **system** | **Test Case status** |
| **1** | Assigning the head of community | Assigns the HOC in already formed communities based on various factors from the users  of that community | Success |
| **2** | Add/removemember | System provides admin the  option of adding or removing a member through admin panel | Success |
| **3** | Manage community | System provides various controls in the admin panel to manage a community- edit  information/block users etc. | Success |
| **4** | View profiles  other than users | As super user can view and  access detailed | Success |
| **5** | Warns users if there are any violations | If there is any violations occurred or reported by other users, admin can inform or notify that particular user  through email or system. | Success |
| **6** | Inform users if there is system down or if any technical issue  occurred | Email based notifications will notify the users regarding this | Success |