**CIS 634 Object-Oriented Software Engineering**

**Test Plan and Test Cases**

**Project Title: Power Management System**

Logo, company name

Description automatically generated

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Group Number: 7

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**1.0 Introduction**

**The purpose of the Test Plan is to specify the scope, approach, resources, and schedule for each, and every testing activity related to the Web Application's operation, as well as its behavioral changes to specific approaches.**

**1.1 Goals and objectives**

**The items to be tested, the features to be tested, the kinds of testing to be done, the people in charge of testing, the resources and schedule needed to finish testing, and the risks associated with the plan are all part of the basic plan.**

**1.2 Statement of scope**

A description of the scope of software testing is developed. Functionality/features/behavior to be tested is noted. In addition any functionality/features/behavior that is not to be tested is also noted.

**2.0 Test Plan**

This section describes the overall testing strategy and the project management issues that are required to properly execute effective tests.

**2.1 Software to be tested**

**Functionality Testing**

**Usability testing**

**Interface testing**

**Compatibility testing**

**Performance testing**

**Security testing**

**2.3 Testing tools and environment**

**System Testing: Individual software modules are tested as a group through integration testing. Carried out on a complete, integrated system to determine whether the system satisfies the specified requirements**

**API testing: Verify each API developed for the software under test**

**2.4 Test schedule**

A detailed schedule for testing is described.

**3.0 Test Cases**

Admin Test Cases:

|  |  |
| --- | --- |
| ID |  |
| Test Input |  |
| Expected Output |  |
| Description |  |

User Test Cases:

1. Registration:

|  |  |
| --- | --- |
| ID | 1.1 |
| Test Input | **Enter valid fields** |
| Expected Output | **Verify message for mandatory fields (red \*)** |
| Description | **User cannot proceed without filling all the mandatory fields** |

|  |  |
| --- | --- |
| ID | 1.2 |
| Test Input | **Sign Up details** |
| Expected Output | **Sign-up successful** |
| Description | **Verify if the User enter same string for password and confirm password. Also password filed will prompt for weak password** |

1. Login:

|  |  |
| --- | --- |
| ID | 2.1 |
| Test Input |  |
| Expected Output |  |
| Description |  |

|  |  |
| --- | --- |
| ID | 2.2 |
| Test Input | **Error Logging** |
| Expected Output | **Successful logging or Reset password** |
| Description | **If the user enters wrong password, error message should pop up which indicates due to which it caused login error** |

1. Forget Password:

|  |  |
| --- | --- |
| ID |  |
| Test Input |  |
| Expected Output |  |
| Description |  |

1. View Customer details page:

|  |  |
| --- | --- |
| ID | 4.1 |
| Test Input | **Enter customer ID and password** |
| Expected Output | **Validate the credentials and display the customer details** |
| Description | **Customer details page is visible to the authorized customer only. Thus, the credentials that are entered must be validated. But the more important function is that it should only display but not edit.** |

|  |  |
| --- | --- |
| ID | 4.2 |
| Test Input | **The page should have invalid choice/ page** |
| Expected Output | **Check** [**404 page**](https://en.wikipedia.org/wiki/HTTP_404) **is designed or not.** |
| Description | **If the user requires to fetch more details, then button (view details) should direct to the page should have valid request/response** |

1. User home page:

|  |  |
| --- | --- |
| ID | 5.1 |
| Test Input | **The page should have buttons for Bill Payment, View Bill details** |
| Expected Output | **Once the button is clicked, it should re-direct to the bill payment page or the view bill details page.** |
| Description | **The home page should display buttons and it should re-direct accordingly. It should append a unique number (unique bill number) to the open document to keep one document from overwriting another.** |

|  |  |
| --- | --- |
| ID | 5.2 |
| Test Input | **The page should have filters for the view page** |
| Expected Output | **Filters should be present on a drop-down menu which includes Sorting options and year selection.** |
| Description | **The filters should be applied to the bill’s list and display it accordingly.** |

1. Edit user details page:

|  |  |
| --- | --- |
| ID | 6.1 |
| Test Input | **The page allows the user to edit the details.** |
| Expected Output | **The changes made on this page should notify the database about the changes** |
| Description | **Through this page, the customer can make all the customer details like Address and phone number. It should prompt the user to save if you move to another record or screen.** |

1. Edit Bill Page:

|  |  |
| --- | --- |
| ID | 7.1 |
| Test Input | **Payment not issued / not paid / payment error** |
| Expected Output | **Pop-up message for Payment Due** |
| Description | **A message should be present on the customer portal if the payment is not issued, also for a prototype text message must be send to the customer.** |

|  |  |
| --- | --- |
| ID | 7.2 |
| Test Input | **To edit the customer details** |
| Expected Output | **The customer details can only be edited by the admin** |
| Description | **The Edited details must be changed in the database as well.** |

1. Bill Due Warning Page:

|  |  |
| --- | --- |
| ID | 8.1 |
| Test Input | **Payment not issued / not paid / payment error** |
| Expected Output | **Pop-up message for Payment Due** |
| Description | **A message should be present on the customer portal if the payment is not issued, also for a prototype text message must be send to the customer.** |

1. View Complaints Page:

|  |  |
| --- | --- |
| ID | 9.1 |
| Test Input | **Feedback form filled by the customer with 500 characters** |
| Expected Output | **Message must be received by the admin. It must contain less than 501 characters. The error message must appear if the submission done exceeding 500 characters.** |
| Description | **Message must have characters up to 500. The admin must be received the message.** |

|  |  |
| --- | --- |
| ID | 9.2 |
| Test Input | **Feedback form filled by the customer with type of complain scroll down menu** |
| Expected Output | **The scroll down must work properly.** |
| Description | **The complaint page must have a scroll down menu to select the category.** |

1. Complaints Details Page:

|  |  |
| --- | --- |
| ID | 10.1 |
| Test Input | **The complaint submitted by the customer must be available for him/her to review.** |
| Expected Output | **It should be assorted according to the date. It should mention the category, details, category, and the status of that complaint.** |
| Description | **The complaint windows should be accessible to the customer as well. It should have all the details.** |