**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 | 1. Name 2. DOB 3. Email 4. Home-Address 5. Password |
| Expected Output | User is registered successfully! |
| Description | If the user enters all the correct details and the formatting of email and password is correct, then the user is successfully registered. |

|  |  |
| --- | --- |
| ID | 1.2 |
| Test Input | 1. Name 2. DOB 3. Email 4. Home-Address 5. Password |
| Expected Output | Please enter correct details! |
| Description | If the user does not enter the correct details and the formatting of email and password is incorrect, then the user will get an error message saying please enter the correct details. |

1. Login:

|  |  |
| --- | --- |
| ID | 2.1 |
| Test Input | 1. Email 2. Password |
| Expected Output | Congratulations, you are successfully logged in. |
| Description | If the email and the password entered by the user matches the database, then they are logged in. |

|  |  |
| --- | --- |
| ID | 2.2 |
| Test Input | 1. Email 2. Password |
| Expected Output | Please enter correct email and password. |
| Description | If the email and the password entered by the user does not match the database, then they cannot log in. |

1. Forget Password:

|  |  |
| --- | --- |
| ID | 3.1 |
| Test Input | 1. Click on forget password button. |
| Expected Output | A new password is shown on the screen of the user. |
| Description | If the user clicks on the forget password button then a new random password is generated and shown on the screen of the user. |

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. |