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<Purchasing System for Kurtu Int.> Test Plan Document

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# Introduction

Software testing is an investigation conducted to provide stakeholders with information about the quality of the product or service under test. Testing evaluates a software product to ensure that it satisfies its planned purpose. A test that is modified to and consistent with development methodologies provides an observable and structured approach for verifying requirements and quantifiable performance.

## Purpose

The purpose of our test plan is to uncover and report as many bugs as possible to increase our system reliability and to ensure the right product is developed.

# Features to be tested/not to tested

## Features to be tested

### Functional requirements to be tested

* **Registering an account:** the level of risk for this feature is high because if all the fields of the registration form is not valid, registration will not be done.
* **Login:** the level of risk for this feature is high because once a user logged in to the system, if that user is not an authorized, the data will get accessed by unauthorized person.
* **Add record:** level of risk of this feature is medium because an employee can add unnecessary data.
* **Attach receipt:** has medium level of risk because an employee can add unsupported image format while attaching.
* **Database connection**: has high level risk because the entire system relies on the database functionality.

### Nonfunctional requirements to be tested

* **Performance:** this feature has a medium risk because the desired search results should be available at a required time.
* **Security:** the level of risk of this feature is high because if unregistered user access the data of the system data will get modified by unauthorized user.

## Features not to be tested

* **View Record:** this feature is viewed for only registered and logged in users and the feature is only used to view records. Users can’t update and add data to this view.
* **Change remark:** this feature has low risk because users can only change pending remarks to done and if there are remarks forgotten to be checked as done, a user can check that before attaching receipt.
* **Delete record:** this feature also has low risk because if no record is selected the system will allow the user to get notified to select a record to be deleted.

# Pass/Fail criteria

The pass criteria at:- Unit Level

* If all test cases are completed
* A specified percentage of cases are completed with minor defects.

Integration level

* All test cases completed
* A specified percentage of cases are completed with minor defects.
* Integrated units communicate and interact smoothly and properly.

In general the test will fail when the above mentioned pass criteria have not reached an acceptable level.

# Approach/Strategy

The system will be tested using Unit testing which involves breaking programs into pieces, and subjecting each piece to a series of tests.

Performing unit tests is designed to be simple, generally the tests are written in the form of functions that will determine whether a returned value equals the value expected when a function (or the value you will expect when you eventually write it) is written. We used this approach because it becomes easier to detect bugs early on.

The software is developed in an organized way so as to make it easier for testing. The data fields of software features are managed carefully, thoroughly and attentively during the entire project and product life cycle. Since Configuration management determines clearly about the items that make up the software or system. These items include add record, registration, login and attach receipt and database connection.

# Test cases with specifications

### Test case specification for Patient Registration

*Table 1 Test case specification for Patient Registration*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name =** Register Patient | | | | |
| **Purpose =** To add patients to the system | | | | |
| **Test Data** = Name (invalid name, valid name, empty)  Age (valid age, empty)  Address (valid address, empty)  Phone (invalid phone, valid phone, empty)  Gender (not selected, selected)  Assign Doctor (not selected, selected) | | | | |
| **Input** | **Expected result** | **Data** | **Actual output** | **Pass/fail** |
| Empty Name and all other fields are valid | “Please provide your name” | Empty First Name and Any valid data for other fields | “Please provide your name” | Fail |
| Invalid Name and all other fields are valid | “Name must be greater than 3 characters” | If First Name<3 characters  Any valid data for other fields | “Name must be greater than 3 characters” | Fail |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Empty Age and  Other fields are valid | “Age must be provided” | Empty Age and Any valid data for other fields | “Age must be provided” | Fail |
| Empty Address and all other fields are valid | “Please provide your address” | Empty Address and Any valid data for other fields | “Please provide your address” | Fail |
| Invalid Phone and all other fields are valid | “Phone number must be 10 digits” | Invalid Phone and Any valid data for other fields | “Phone number must be 10 digits” | Fail |
| Empty Phone and all other fields are valid | “Phone must be provided” | Empty Phone and all other fields are valid | “Phone must be provided” | Fail |
| Gender not selected and all other fields are valid | “Gender must be selected” | Gender not selected and all other fields are valid | “Gender must be selected” | Fail |
| Assign Doctor not selected and all other fields are valid | “A doctor must be assigned” | Assign Doctor not selected and all other fields are valid | “A doctor must be assigned” | Fail |
| All valid fields | “Patient registered successfully” | Any valid data for all fields | “Patient registered successfully” | Pass |

### Test case specification for Sign In

*Table 2 Test case specification for Sign In*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name =** Sign in | | | | |
| **Purpose =** To give account access to the user | | | | |
| **Test Data** = User Name (invalid user name, Valid user name, empty) Password (invalid password, valid password) | | | | |
| **Input** | **Expected result** | **Data** | **Actual output** | **Pass/fail** |
| Empty User Name and all other fields are valid | “User Name field is empty” | Empty User Name and Any valid data for  other fields | “User Name field is empty” | Fail |
| Invalid User Name and all other fields are valid | “User Name does not exist” | Invalid Username and Any valid data for  Password | “User Name does not exist” | Fail |
| Empty Password And all other fields are valid | “Password field is empty” | Empty Password And any valid data for other fields | “Password field is empty” | Fail |
| Invalid Password And all other fields are valid | “Password doesn’t match with User Name” | Invalid Password and  Any valid data for User Name | “Enter strong Password with length greater than three” | Fail |
| All fields are empty | “All fields are  required” | If all fields are empty | “All fields are  required” | Fail |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| All valid fields | “Signed in  successfully” | Any valid data for the  two fields | “Signed in  successfully” | Pass |

### Test case specification for Add Record

*Table 3 Test case specification for Add Record*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name =** Add Record | | | | |
| **Purpose =** To save records into the database | | | | |
| **Test Data** = Material Name (invalid material name, Valid material name, empty) Material Type (invalid material type, valid material type, empty) Request Number (invalid request number, valid request number) Quantity (invalid quantity, Valid quantity)  Price (invalid price, valid price, empty)  Request Date (invalid request date, Valid request date) Purchase Date (invalid purchase date, valid date)  Shop (invalid shop, valid shop) Address (invalid address, valid address)  Phone Number(invalid phone number, valid phone number) | | | | |
| **Input** | **Expected result** | **Data** | **Actual output** | **Pass/fail** |
| Empty Material Name and all other fields are  valid | “Material Name field is empty” | Empty Material Name and Any valid data for other fields | “Material Name field is empty” | Fail |
| Invalid Material Name  and all other fields are valid | “Invalid Material Name entered” | If Material Name  contains 0-9 && special characters | “Invalid Material Name entered” | Fail |
|  |  | and |  |  |
|  |  | Any valid data for other fields |  |  |
| Empty Material Type and all other fields are valid | “Material Type field is empty” | Empty Material Type and Any valid data for  other fields | “Material Type field is empty” | Fail |
| Invalid Material Type  and all other fields are valid | “Invalid Material Type entered” | If Material Type contains 0-9 && special  characters | “Invalid Material Type entered” | Fail |
|  |  | and |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Any valid data for other fields |  |  |
| Invalid Request Number and all other fields are valid | “Invalid Request Number entered” | If Request Number contains characters && special characters  and  Any valid data for other fields | “Invalid Request Number entered” | Fail |
| Invalid Quantity and all other fields are valid | “Invalid Quantity entered” | If Quantity contains special characters && characters  and  Any valid data for other fields | “Invalid Quantity entered” | Fail |
| Empty Price and all other fields are valid | “Price field is empty” | Empty Price and Any valid data for  other fields | “Price field is empty” | Fail |
| Invalid Price and all other fields are valid | “Invalid Price entered” | If Price contains characters && special characters  and  Any valid data for other fields | “Invalid Price entered” | Fail |
| Invalid Request Date and all other fields are valid | “Invalid Request Date entered” | If Request Date contains special characters  and  Any valid data for other fields | “Invalid Request Date entered” | Fail |
| Invalid Purchase Date and all other fields are valid | “Invalid Purchase Date entered” | If Purchase Date contains special characters and  Any valid data for other fields | “Invalid Purchase Date entered” | Fail |
| Invalid Shop and all other fields  are valid | “Invalid Shop entered” | If Shop contains special  characters && 0-9 | “Invalid Shop entered” | Fail |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | and  Any valid data for other fields |  |  |
| Invalid Address and all other fields are valid | “Invalid Address entered” | If Address contains special characters and  Any valid data for other fields | “Invalid Address entered” | Fail |
| Invalid Phone Number and all other fields are valid | “Invalid Phone Number entered” | If Phone Number contains special characters  and  Any valid data for other fields | “Invalid Phone Number entered” | Fail |
| All fields are empty | “All fields are required” | If all fields are empty | “All fields are required” | Fail |
| All valid fields | “Record added successfully” | Any valid data for the two fields | “Record added successfully” | Pass |

# Reference

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