Test Planning

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# Unit Tests

This type of software testing is carried out to test a part or component of software. The unit in question can be code, function, method, procedure, module, or a separate object. Unit testing is included in the software development stage. Usually, this unit test is done before system integration testing.

The main purpose of Unit Testing is to :

* It help to fix the bugs in the first cycle of development
* It help the developers to understand the testing code bases and help them to fix the changes really quick.
* It help for project documentations.
* It help to re-use the code on your new project.

I will have a lots of Unit Test on my project to test my code behaviour, the unit test will be covered at least 80% from the code.

# Integration Tests

**System Integration Testing (SIT)** is a type of test to verify the behaviour of the complete system. It’s deals with the verification of the high and low-level software requirements specification/ data and the software design document.

It’s also test the interface between modules on the software application. In this test, first we have to test the module individually then combined to make a system.

The main purpose of SIT is to :

* helps to detect defect early
* Earlier feedback on the acceptability of the individual module will be available
* Scheduling of Defect fixes is flexible, and it can be overlapped with development
* Correct data flow
* Correct control flow
* Correct timing
* Correct memory usage
* Correct with software requirements

In my case the integration test are run automatically by GitLab every time I push to my repository. It will build my project and test my unit testing, we can see it through SonarQube.

# System Tests

For the system test I’m planning to use a 3rd party tool named Cypress.

# User Acceptance Tests

**User Acceptance Testing (UAT)** is a type of test to verify/accept the software system before moving the software application to the production environment, and it will be performed by the end user or the client. We do the UAT after the functional, integration and system testing is done, because UAT is the final phase of testing.

The main purpose of UAT is to validate end to end business flow. It does not focus on cosmetic errors, spelling mistakes or system testing. User Acceptance Testing is carried out in a separate testing environment with production-like data setup. It is kind of black box testing where two or more end-users will be involved.

I plan to do one user acceptance test by making a document with test cases and their expected outcomes and giving it as well as access to my application to some of my classmates.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ID | Name | Pre-Condition | Steps | Test Data | Expected Result | Actual Result |
| TC-01 | Sign-In as a Customer |  |  |  |  |  |
| TC-02 | Sign-In as an Admin |  |  |  |  |  |
| TC-03 | Sign-In with incorrect credentials |  |  |  |  |  |
| TC-04 | Sign-Up as a Customer |  |  |  |  |  |

# References

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