CHAPTER 6 SYSTEM TESTING

In the system testing the whole system is tested for interface between each module and program units are tested and recorded. This testing is done with sample data. The securities, communication between interfaces are tested.

System testing is actually a series of different tests whose primary purpose is to fully exercise the computer based system although each test has a different purpose all work to verify that all system elements properly integrated and perform allocate function. This project has undergone the following testing procedure to ensure its correctness.

* Unit Testing
* User Acceptance Testing
* Integration
  1. UNIT TESTING

Here each program is tested individually so any error apply in an unit is debugged. The sample data are given for the unit testing. The unit results are recorded for further references. During unit testing the functions of the program unit validation and the limitations are tested.

Unit testing comprises the set of tests performed by an individual prior to integration of the unit into large system. The situation is illustrated in as follows Coding->Debugging->Unit testing->Integration testing

The four categories of test that a programmer will typically perform on a program unit

* + - Functional test
    - Performance test
    - Stress test
    - Structure test

Functional test involve exercising the code with nominal input values for which the expected results are known as well as boundary values and special values.

Performance testing determines the amount of execution time spent in varies parts of unit program through put and response time and device utilizations by the program.

Structured testing is concerned with a exercising the internal logic of a program and traversing paths. Functional testing, stress testing performance testing is referred as “black box” testing and structure testing is referred as “white box” testing.

TEST CASES FOR UNIT TESTING TEST CASE 1:

Module : Admin Module

Test Type : Loading of appropriate form for admin Input : Username and password

Expected Output : Successfully Registration

Test

Input : Username-Admin Password -Admin

Output : Report to admin form

Analysis : In this form the username and password has been tested by correct format. In this the username is mismatched to subscribe in the database mean, here the data mismatch error can be occurred

* 1. USER ACCEPTANCE TESTING

Acceptance testing involves planning an execution of a functional test, performance test and stress test to verify that the implemented system satisfies the requirement. The acceptance testing is the final stage of the user the various possibilities of the data entered and the results are tested.

* 1. INTEGRATION TESTING

The integration is the next important concept that highlights in the testing scenario. Integration testing can be performed in different strategies. One of them is big bang testing in which one first tests all of systems modules separately and then whole systems at once. But here we proceed abruptly form the module testing and the integration testing disappears. Another alternative is the incremental testing.

With the incremental testing there are many advantages. Project will start the integration as soon as reasonable subsets of modules have been developed. It is easier to localize errors incrementally.

The partial aggregations of modules often constitute important subsystems that can have autonomy with these testing. The need for stubs and drivers can be reduced.

There are two approaches to the incremental testing. They include bottom-up and top- down aggregations. The former means starting aggregation and testing from leaves of the module charge. The later means starting from the top-level modules and substitute for higher-level modules. In our project we have used the top-down approach of incremental testing.

Top-down integration is an incremental approach to the construction of programs structure. Modules are integrated by moving downward through the control hierarchy, beginning with the main control module that is the basic connectivity modules in our project. Test is done on each module.

The top-down integration strategy verifies major control or decision points. In the beginning of the integration phase dummy frames were selected as stubs to ensure that the data flow occurred through the correct hierarchical structure. Later the actual module replaces the stubs.

TEST CASE:

Module : Admin Login (add product, manage product) Test Type : Working of Login, Add Clothes , change product Input : Navigation between admin menus

Expected Output : Navigation between modules is complete.

Test

Input : On clicking Login, Insert products ,changing products Output : Respective forms open correctly and display the fields Analysis : Respective Forms will be open

* 1. VALIDATION TESTING

Software validations are achieved through a serious of testes that demonstrate conformity with requirements. Thus the proposed system under consideration has been tested by validation & found to be working satisfactory.

CASE 3:

|  |  |  |
| --- | --- | --- |
|  | Module Test Type Input  Expected Output | : Customer Registration  : Customer details  : Input to all fields  : Data types for the fields should be validated and should not accept |
| Test |  |  |
|  | Input Output | : Input for phone number field not less 10 Numbers  : If this is less than 10 numbers, it results as invalid |

phone Number

Analysis : The expected output is same so the form passed

the validating testing