## **ASSIGNMENT NO: 05**

## A) TEST PLAN

### **TESTING:**

Testing is an investigation conducted to provide stakeholders with information about the quality of the software product or service under test. Software testing can also provide an objective, independent view of the software to allow the business to appreciate and understand the risks of software implementation. Test techniques include the process of executing a program or application with the intent of finding software bugs.

Software testing can also be stated as the process of validating and verifying that a software program/application/product:

- 1. meets the business and technical requirements that guided its design and development;
- 2. works as expected; and
- 3. can be implemented with the same characteristics.

Software testing, depending on the testing method employed, can be implemented at any time in the development process. However, most of the test effort occurs after the requirements have been defined and the coding process has been completed.

### Types of Testing-

- 1. Unit Testing.
- 2 .Integration Testing.
- 3. Functional Testing.
- 4. System Testing
- 5. Beta Testing

### **UNIT TESTING-**

Testing of individual software components or modules. Typically done by the programmer and not by testers, as it requires detailed knowledge of the internal program design and code.

It involves testing of an individual units such as compilation, neural network components.

#### INTEGRATION TESTING-

Testing of integrated modules to verify combined functionality after integration. Modules are typically code modules, individual applications, client and server applications on a network, etc. This type of testing is especially relevant to client/server and distributed systems. It checks whether the flow of system is correct or not.

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## **FUNCTIONAL TESTING-**

This type of testing ignores the internal parts and focus on the output is as per requirement or not. Black-box type testing geared to functional requirements of an application.

It checks whether the system is generating the proper output for the given input. Optional vs mandatory fields check(while entering configurations).

## **SYSTEM TESTING-**

Entire system is tested as per the requirements. Black-box type testing that is based on overall requirements specifications, covers all combined parts of a system. How the system works after providing sample test code to generate warnings.

### **BETA TESTING-**

Testing typically done by end- user or other. Final testing before releasing application for commercial purpose.

## B) FIND TEST DATA

- Connection
- Database
- Client request
- Server response
- Predicted Result

## C) TEST CASES

- Connectivity of Client with Server
- Availability of Proper Information
- Database Analysis

# D) TOOLS FOR TESTING

- Data mining Algorithm
- Web Browser