**CHAPTER 7**

**SOFTWARE TESTING**

**6.1 INTRODUCTION**

Software Testing is done to ensure that the completed programming bundle performs as

expected based on the assumptions defined by the requirements/details. The overall purpose

isn't to find every product bug that exists, but to uncover conditions that could have a

negative impact on the client, ease of use, or viability.

**6.1.1 AIM OF TESTING**

• Identifying surrenders that the developer may make while developing the product.

• To prevent absconds.

• To ensure that the final product satisfies the needs of both the business and the client.

• To ensure that it meets the SRS (System Requirement Specification) requirements.

• To gain the trust of customers by providing a high-quality product.

**6.1.2 TESTING TYPES**

**6.1.2.1 WHITEBOX TESTING**

It's not a product testing technique in which the analyzer is aware of the inward

construction/plan/execution of the thing being tested. The analyzer selects contributions to be

used in practise paths across the code and determines the appropriate yields. The ability to

programme and the knowledge of how to execute it are essential.

This technique is named after the fact that, according to the analyzer, the product programme

resembles a white/straightforward box, inside which one can clearly see. This type of testing

should be familiar with inner programming and code working. Code declarations, branches,

ways, and conditions must all be included in the tests. We also call it as glass testing.

**6.1.2.2 BLACKBOX TESTING**

This type of testing ignores internal framework configuration. Tests are based on

prerequisites and utility. Because the product programme, according to the analyzer,

resembles a black box, which no one can see inside, this technique is named after it.

Discovery testing is a testing that avoids the framework's interior components and focuses

solely on output provided.

**6.1.3 LEVELS OF TESTING**

**6.1.3.1 UNIT TESTING**

Unit testing is a type of component testing where individual units are tested . Its aim is to

ensure that every element of the product functions properly.

**6.1.3.2 INTEGRATION TESTING**

Integration Testing : Here we combine the individuals units and they are tested by combining

the individual units into group. The goal of this level of testing is to find weaknesses in the

coordination of coordinated units.

**6.1.3.3 SYSTEM TESTING**

Framework Testing is a whole, coordinated framework/programming is tested at this level of

product testing. The goal is to check whether the framework complies with the predefined

requirements..