# **Chapter 6 TESTING**

## 6.1 Software Testing

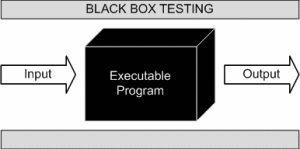
Software testing is a process of executing a program or application with the intent of finding the software bugs. Is a method to check whether the actual software product matches expected requirements and to ensure that software product is[defect](https://www.guru99.com/defect-management-process.html)free. This involves execution of software/system components using manual or automated tools to evaluate one or more properties of interest. The purpose of software testing is to identify errors, gaps or missing requirements in contrast to actual requirements.

It can also be stated as the process of validating and verifying that a software program or application or product: Meets the business and technical requirements that guided its design and development.

## 6.2 Testing Plan

**We intend to use a black box testing technique by engaging users of the app to evaluate every functionalities of the app including the functional and non-functional requirements. We plan to implement this test plan using Black box testing method which is mostly use in software testing.**

**Black Box Testing,** also known as Behavioral Testing, is a software testing method in which the internal structure/ design/ implementation of the item being tested is not known to the tester. Thereby making it easier to evaluate both functional or non-functional requirement of a software.



This method is named so because the software program, in the eyes of the tester, is like a black box; inside which one cannot see. This method attempts to find errors in the following categories:

* Incorrect or missing functions
* Interface errors
* Errors in data structures or external database access
* Behavior or performance errors
* Initialization and termination errors.
* Functional requirements.

**Why Is Black Box Testing Chosen?**

* Tests are done from a user’s point of view and will help in exposing discrepancies in the specifications.
* Tester need not know programming languages or how the software has been implemented.
* Tests can be conducted by a body independent from the developers, allowing for an objective perspective and the avoidance of developer-bias.
* Test cases can be designed as soon as the specifications are complete

## 6.3 Important Checklist

We are deploying a black box testing technique to check the overall functional and non-functional requirements of the software, but thou we have set aside some functionalities as the main target or focus of the test.

The important checklist on this test is listed below:

1. Ability to register and login.
2. Ability to add items to Wishlist
3. Ability to add items to cart and checkout item.
4. Ability to use the different payment options.
5. Ability to consult or chat with professional pharmacist online.
6. Ability to manage user information.
7. Ability to manage inventory (creating and updating)
8. Ability to manage users and user roles.
9. Ability to manage existing orders.
10. Easy navigation and access to all available features on the app.
11. User Experience.
12. Data retrieval in respect to load time.
13. The reliability of the chatting program
14. Data validation.

## 6.4 Error and Success Functionality test

Test result was reviewed and critically analyzed to achieve the testing analysis of the software application.

Below is the test result presented in a tabular form.

|  |  |  |  |
| --- | --- | --- | --- |
| **SNo** | **Test Item** | **Test Method** | **Test Result** |
| 1 | Access Control Ability | Unauthorized user access to the system. | Interception Successful |
| Unauthorized access to other user information. |
| Unauthorized access to application data. |
| 2 | Functional logic requirement | User Registration | Test results are according with the set requirements. |
| User Login |
| Adding items to Cart |
| Checking out cart |
| Adding item to Wishlist |
| Users and user role Management |
| Managing user Information (Updating profile) |
| Navigating between the apps |
| Managing the inventory (adding or updating products) |
| Managing previous orders |
| Chatting Live with consultants |
| Login out |
| 3 | Non-Functional logic requirement | User Experience | Test results are according with the set requirements. |
| Content Navigation |
| Enforcement of login before accessing the app protected resource |
| User input validation |
| Loading time |