

CHAPTER 6

STEM TESTING

6.1 INTRODUCTION

Testing is the process by which developer will generate a set of test data, which gives maximum probability of finding all types of errors that can occur in the software. Testing is an important phase in the software development cycle. For any software that is newly developed, primary importance has been given to testing of the system. It is the responsibility of the developer to detect all possible errors in the software before handling it to the user or Customer.

Being a Web-Based Application, “**UNLEASH YOUR STRENGTH**” has to be undergone with the following tests:

6.2 UNIT TESTING

Unit testing focuses on the **smallest unit** of Software **component or module**. For each module interface, local data structure, boundary condition, independent paths and all error handlings paths are tested. In this project, there are different modules like Registration, login, admin module and so on. Each one is tested separately and the errors are rectified. For example, in a registration form each of the element (for example a text box, list box, radio button and other elements) should be tested.

6.3 INTEGRATION TESTING

Integration testing is a systematic technique conducted to test errors associated with interfacing. The program is constructed and tested in a small increment. In this project, login module and registration module are integrated and tested. Similarly, all the modules are integrated and tested.

6.3.1 REGRESSION TESTING

After the successful integration of modules, it also check for any side effects (any kind of new error) that may lead to introduction of any new error in different modules.

6.4 VALIDATION TESTING

Validation testing begins at the culmination (climax) of integration testing. It focuses on user-visible actions and user-recognizable output from the system. It tries to uncover errors, but the focus is at the requirements level.

6.5 ALPHA AND BETA TESTING

The alpha test is conducted at the developer's site by the customer. It is conducted in a controlled environment.

The beta test is conducted at one or more end-user sites. Unlike alpha testing, the developer generally is not present. Therefore, the beta test is a "live" application of the software in an environment that cannot be controlled by the developer.

The customer records all problems (real or imagined) that are encountered during beta testing and reports these to the developer at regular intervals.

6.6 SYSTEM TESTING

System testing is actually a series of different tests whose primary purpose is to fully exercise the computer-based system.

CHAPTER 7

CONCLUSION & FUTURE ENHANCEMENTS

7.1 CONCLUSION

The Application “UNLEASH YOUR STRENGTH” has been analyzed, designed and developed in a successful manner with the design considerations for a web-based Application and also hosted in the college. The testing and implementation has also been completed as well. The Application has been developed as part of a mini project and hence only limited features has been implemented.

7.2 FUTURE ENHANCEMENTS

The Application can have the following enhancements

- In this project, many future plans may be implemented to this process. However future thinking has expanded hugely in scope and substance. This system will expand to more future plans.