Test Plan for Swimming Pool Management Software

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1 TEST PLAN IDENTIFIER MSA-1.0

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2 REFERENCES

1)Software Requirements Specification For Swimming Pool Management Software
2)TEST PLAN OUTLINE (IEEE 829 FORMAT)

3 INTRODUCTION

This is the Master Test Plan for the Swimming Pool Management Software. This plan will address only those items and elements that are related to the Swimming Pool Management Software Process, both directly and indirectly affected elements will be addressed. The primary focus of this plan is to ensure that all of the Swimming Pool Management Software's functionalities work flawlessly while allowing for improvements and increases in data acquisition and the level of details available (granularity). The project will have two levels of testing, Unit Testing, and GUI Testing.

The details are addressed in the approach section. The estimated timeline for this project is very aggressive (one weeks), as such, any delays in the development process could have significant effects on the test plan.

4 TEST ITEMS

The following is a list, by version and release, of the items to be tested:

A. User package, Version **1.0**

B. Member package, Version **1.0**

C. Manager package, Version **1.0**

D. Course Coordinator package, Version **1.0**

E. Master Items package, Version **1.0**

F. Swimming Pool Management Software, the initial version to be Version

1.0

A detailed listing of programs, databases, screens, and reports will be provided in the system and detailed design documents.

5 SOFTWARE RISK ISSUES

There are several parts of the project that are not within the control of the Swimming Pool Management Software but have direct impacts on the process and must be checked as well.

A. Backup and Recovery of local databases must be carefully checked.
B. The ability to restart the application in the middle of a process is a critical factor to application reliability.
C. Database security and access must be defined and verified.

6 FEATURES TO BE TESTED

The following is a list of the areas to be focused on during testing of the application.

A. Login Method
B. Enroll in course
C. Manage pool slots
D. Manage Bookings of pool
E. Pay Mwembership fee
F. Manage Membership (Modify or cancel Membership)
G. Manage swimming Courses (Add, Remove, Propose addition, propose removal,..etc)
H. Manage swimming competitions
I. Manage Swimming classes
J. Set format of an event
K. Putting Notice in the portal
L. Manage Posts

7 FEATURES NOT TO BE TESTED

The following is a list of the areas that will not be specifically addressed.

A. Database Manipulation and Data Retrieval

Testing of these features will be an indirect result of other testing efforts already present.

8 APPROACH

UNIT Testing will be done by the Team number 45 and will be approved by Mentor and Professors. Proof of unit testing (test case list, sample output, data printouts, defect information) must be provided by the Team 45 to the Mentor and Professors before unit testing will be accepted and passed. All unit test information will also be provided.

Measures and Metrics

The following information will be collected by the Code Cannibals team during the Unit testing process.

1. Defects by module and severity.
2. Defect Origin (Requirement, Design, Code)
3. Time spent on defect resolution by defect, for Critical & Major only.
4. Defects located at higher levels that should have been caught at lower levels of testing.

9 ITEM PASS/FAIL CRITERIA

The test process will be completed once all the functionalities of the software are verified and tested.

At the Unit Testing level, all the test cases must be completed with more than 90% of the test cases passed.

Code coverage of nearly 70-80% is a reasonable goal for system tests of most projects with most coverage metrics.

The test is considered to be suspended if any of the following is encountered:

1. The software crashes
2. The software produces incorrect output
3. The software takes more than expected time to produce the output.

The test is considered to be approved if the software produces the correct output as per client demand.

10 SUSPENSION CRITERIA AND RESUMPTION REQUIREMENTS

Testing is to be suspended in the following situations:

1. If the number of test cases failed is over 20%.
2. If the system crashes upon the majority of the occasions.

11 TEST DELIVERABLES

1. Test plan document.
2. Test Suite which contains the Test cases.
3. Problem reports and corrective actions.

12 ENVIRONMENTAL NEEDS

1. The test data will be provided manually.
2. The recommended Operating System is Windows 10/Linux/MacOS along with any modern web browser installed.