**MSSE SOFTWARE, INC.**

**System Test (DVT and SVT) Plan for**

**GolfScore**

**Revision 1.1**

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# Introduction

## Objective

This document explain the test case for project “GolfScore” Release 1.1. it includes information about what will be tested in this project, how testing will be perform, and what not to be tested, this document also contain the description of this project and schedule. Test to be performed, test dependencies, resources for this project, requirements, testing tools, changes in requirements and the structure of the team must always show in this documents.

The main purpose and focus of this document is to test, verify and validate the software development and specifications of the project “GolfScore” as contained in appendix A.

## Project Description

## GolfScore is a program used to generate golf tournament results for golfers along each course. This product/software will take input text file from user for players which is explained in SRS document,

## And the output of the text file will be produce which is explain clearly in SRS document.

## Process Tailoring

The GolfScore program required no external dependencies, thus the test is tailored along Functional and Non-Functional in the Framework of design verification and system validation.

Testing is carried out under the following phases:

* Entrance Test: To verify that the program is correctly executed and handle input parameter error as specified in the SRS document.

See Appendix C for the description of Entrance testing and test cases.

* Main Test: this test is to verify the correctness of program and execution. To test that the program accurately process correct data as specified and produces the required result.

See Appendix C for the description of Main Test and Test Cases.

* UI Test: this test is to verify that the user interface is design correctly and full fill the requirements, spaces between elements, size, interaction, color of elements.

See Appendix C for the description of UI Test and Test Cases.

* Exit Test: to test that the program produce the correct output or result and save that in the correct exact location.

See Appendix C for the description of Exit Test and Test Cases.

* Regression Test: when defects report back to developers and they fix the defects, this test is to test again that fixed defects.

See Appendix C for the description of Regression Test and Test Cases.

The following references were used in creating this document:

1. Software Requirements Specification for GolfScore, Revision 1, July 18, 2017.
2. System Verification Test Plan for Advanced Color Module, Revision 2, 22 February, 2000.

# Assumptions/Dependencies

It is assumed that the developer team unit test their code while developing the software, and also perform integration testing Customer validation testing is assumed to be carried out by field personnel together with customers.

For confirmation with set schedule, the program must be made available by the developer team by Feb, 05, 2022.

# Test Requirements

* Entrance Test
* The program is written in either C, C++ or Java.
* The program runs on a PC running windows 8 or any later version.
* The program runs as a stand alone executable.
* The program can be run from command line interface.
* The program runs with valid input data.
* Main Test
* The number of golf courses specified for the tournament must be from 1 to 5.
* Each golfer is expected to play each course once.
* The number of golfers entered in the tournament can be from 2 to 12.
* Par for holes on each course must be either 3, 4, or 5.
* Score earned by a golfer for each hole played is between 0 and 6 (0 and 6 included).
* The first set of records in the input file (course records) exist and follow the specified
* There is a delimiter record that signals the end of course records.
* A second set of records (golfer records) exist in the input file and each entry follows the
* specified format.
* There is a delimiter record that signals the end of the input file.
* Exit Test
* The program should produce a number of reports corresponding to the specified options.
* The generated reports should be saved as text files in the specified output directory (or if
* not specified, in the directory of the input file) with the extension “.rep”.
* If requested, the tournament ranking report should contain a list of all golfers in the
* specified format. The list should be in descending order of final score and should be
* saved with an output filename of trank.rep.
* If requested, the golfer report should contain a list of all golfers in the specified format.
* The list should be alphabetical with respect to the golfers’ last name and should be saved
* with an output filename of golfer.rep.
* If requested, the course report should contain a section for each Golf Course listed in the
* input Course Records in the specified format. It should be saved with

# Test Tools

To aid the testing process, the following testing tools are required:

* Defect reporting and tracking software
* Installation media for multiple Windows versions above 2000 (e.g. XP, Vista, 7, 8, 8.1, & 10)

# Resource Requirements

The following resource would be required:

* GolfScore Program version 1.1
* Three PCs capable of hosting virtual machines
* A virtualization software
* Three Test Group personnel with at least 70% of his/her time available for this effort.

See Appendix A for details.

# Test Schedule

|  |  |  |  |
| --- | --- | --- | --- |
| No | Test | Start | Finish |
| 1 | Test Development | 22.12.2021 | 04.01.2022 |
| 2 | Program Availability | 04.01.2022 | -- |
| 3 | Entrance Testing | 05.01.2022 | 11.01.2022 |
| 4 | Main Testing | 12.01.2022 | 24.01.2022 |
| 5 | Exit Testing | 24.01.2022 | 30.01.2022 |
| 6 | Regression Testing | 31.01.2022 | 05.02.2022 |

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See Appendix B for details.

# Risks/Mitigation

* Without having a program that enforces compliance in the structure of input data, there’s a high probability of input data errors.

# Metrics

The following metrics data will be collected. Some will be collected prior to, and some after product

shipment.

Prior to shipment:

Effort expended during DVT, SVT and Regression

# of defects uncovered during DVT, SVT and Regression, and development phase each defect is

attributable to

Test tracking S-Curve

PTR S-Curve

After shipment:

# of defects uncovered and development phase each defect is attributable to

Size of software

Appendix A – Detailed Resource Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| No | Test | No of Personnel | No of Hours |
| 1 | Test Development | 3 | 80 |
| 2 | Entrance Testing | 3 | 40 |
| 3 | Main Testing | 3 | 80 |
| 4 | Exit Testing | 3 | 40 |
| 5 | Regression Testing | 2 | 40 |

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* PCs that are capable of hosting virtual machines are required such that the program can be tested on multiple versions of Windows.
* A virtualization software is required such that multiple versions of Windows can be installed to test the program.

Appendix B – Detailed Test Schedule

|  |  |  |  |
| --- | --- | --- | --- |
| No | Test | Start | Finish |
| 1 | Test Development | 22.12.2021 | 04.01.2022 |
| 2 | Program Availability | 04.01.2022 | -- |
| 3 | Entrance Testing | 05.01.2022 | 11.01.2022 |
| 4 | Main Testing | 12.01.2022 | 24.01.2022 |
| 5 | Exit Testing | 24.01.2022 | 30.01.2022 |
| 6 | Regression Testing | 31.01.2022 | 05.02.2022 |

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|  |  |  |
| --- | --- | --- |
| No | Test | Dependencies |
| 1 | Test Development | 3 PCs  3 Personnel |
| 2 | Program Availability | GolfScore Program |
| 3 | Entrance Testing | 3 PCs  3 Personnel  Virtualization Software |
| 4 | Main Testing | 3 PCs  3 Personnel  Virtualization Software |
| 5 | Exit Testing | 3 PCs  3 Personnel  Virtualization Software |
| 6 | Regression Testing | 2 PCs  2 Personnel  Virtualization Software |