Software Test Plan

HockeySimulation

3/9/2017

ENSE 475 Software Systems Engineering Faculty of Engineering

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**Version:** 1.0

**Created:** 3/9/2017

**Last Updated:** 3/23/2017

**Status:** DRAFT(The status would change to finalized post the BA, PM and dev team review and sign off)

**Revision and Signoff Sheet**

**Document History** - To maintain a list of changes being made

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Date | Author | Description of Change |
| 1 | 3/9/2017 |  | Draft |
|  |  |  |  |

**Approvers List** - To track who has reviewed and signoff on the Test plan

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| Name | Role | Approver / Reviewer | Approval / Review Date |
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**Reference Documents** - Clearly mark the document used as an input to create the test plan

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| **Version** | **Date** | **Document Name** |
| 1.0 |  | (reference name of design docs) |
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# INTRODUCTION

*Section 1 of the test plan describes the objectives and extent of the tests. The goal is to provide a framework that can be used by managers and testers to plan and execute the necessary tests in a timely and cost-effective manner.*

***EXAMPLE****:*

## Purpose

This test plane describes the testing approach and overall framework that will drive the testing of the HockeySimulation program. The document introduces:

* Test Strategy: rules the test will be based on, including the givens of the project (e.g.: start / end dates, objectives, assumptions); description of the process to set up a valid test (e.g.: entry / exit criteria, creation of test cases, specific tasks to perform, scheduling, data strategy).
* Execution Strategy: describes how the test will be performed and process to identify and report defects, and to fix and implement fixes.
* Test Management: process to handle the logistics of the test and all the events that come up during execution (e.g.: communications, escalation procedures, risk and mitigation, team roster)

## Project Overview

The HockeySimulation program reads and writes CSV files for team rosters. The program composes players into their teams and runs a hockey league simulation on those players.

## Audience

* Project team members perform tasks specified in this document, and provide input and recommendations on this document.
* Tester plans for the testing activities in the overall project schedule, reviews the document, tracks the performance of the test according to the task herein specified, approves the document and is accountable for the results.

# RELATIONSHIP TO OTHER DOCUMENTS

*Section 2 explains the relationship of the test plan to the other documents produced during the development effort such as the RAD, SDD, and ODD (Object Design Document). It explains how all the tests are related to the functional and nonfunctional requirements, as well as to the system design stated in the respective documents. If necessary, this section introduces a naming scheme to establish the correspondence between requirements and tests.*

# SYSTEM OVERVIEW

*Section 3, focusing on the structural aspects of testing, provides an overview of the system in terms of the components that are tested during the unit test. The granularity of components and their dependencies are defined in this section.*

## System Test Objectives

The objective of the test is to verify that the functionality of HockeySimulation works according to the specifications.

The test will execute and verify the test scripts, identify, fix and retest all defects per the entrance criteria.

The final product of the test is twofold:

* A production-ready software;
* A set of stable test scripts that can be reused for Functional and UAT test execution.

## Test Assumptions

None.

# FEATURES TO BE TESTED/NOT TO BE TESTED

*Section 4, focusing on the functional aspects of testing, identifies all features and combinations of features to be tested. It also describes all those features that are not to be tested and the reasons for not testing them.*

## Feature Test Objectives

HockeySimulation is able to correctly read and write CSV files of Hockey players and load these into a Hockey league simulation.

### Feature Test List

The following is a list of functions that will be tested:

* Read/Write CSV files
* Hockey Player
* Hockey Team
* Hockey League

## Features not Tested

Features outside of the current scope of the system.

# PASS/FAIL CRITERIA

*Section 5 specifies generic pass/fail criteria for the tests covered in this plan. They are supplemented by pass/fail criteria in the test design specification.*

## Validation and Defect Management

* It is expected that the testers execute all the scripts in each of the cycles described above.
* It is the responsibility of the tester to open the defects, link them to the corresponding script, assign an initial severity and status, retest and close the defect;
* Defects found during the Testing will all have equal severity nad impact.

# APPROACH

*Section 6 describes the general approach to the testing process. It discusses the reasons for the selected integration testing strategy. Different strategies are often needed to test different parts of the system. A UML class diagram can be used to illustrate the dependencies between the individual tests and their involvement in the integration tests.*

## Defect tracking & Reporting

Tests are tracked and reported by the tester. Defects are resolved by the implementer of the module.

# TESTING MATERIALS

*Section 8 identifies the resources that are needed for testing. This should include the physical characteristics of the facilities, including the hardware, software, special test tools, and other resources needed (office space, etc.) to support the tests.*

### Test HW/SW

Tests are created and executed using JUnit 4 with code coverage provided by EclEmma plugin for Eclipse.

# TEST CASES

*Section 8, the core of the test plan, lists the test cases that are used during testing. Each test case is described in detail in a separate Test Case Specification document.*

See attached Test\_Case.doc file for a listing of all defined test cases and their status.

# TEST SCHEDULE

*Section 9 of the test plan covers responsibilities, staffing and training needs, risks and contingencies, and the test schedule.*

## Test Schedule

| Module Test Description | Start Date | End Data | Mitigation Factors |
| --- | --- | --- | --- |
| System Testing Phase | 3/9/2017 | 3/24/2017 | None |

## Test Cycles

* + There will be a single test cycle to determine and resolve defects in the system.

## Test Execution Process

* Each tester performs step by step execution and updates the executions status. The tester enters Pass or Fail Status for each of the test cases .
* This process is repeated until all test cases are executed fully with Pass/Fail status.

As per Process, final sign-off or project completion process will be followed

# APPROVALS

The Names and Titles of all persons who must approve this plan.

|  |  |
| --- | --- |
| **Signature:** |  |
| **Name:** |  |
| **Role:** |  |
| **Date:** |  |