EGERTON UNIVERSITY

PROJECT TEST PLAN

FOR

TITLE: GAMES MANAGAMENT SYSTEM

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PROJECT CORDINATOR: MR. ODIYO

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Revision and Signoff Sheet

Document History - To maintain a list of changes being made

Version	Date	Author	Description of Change
1	27//2018		Draft

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

Name	Role	Approver / Reviewer	Approval / Review Date

Reference Documents - Documents used as an input to create the test plan

Version	Date	Document Name
001	**14/07/2018**	SOFTWARE REQUIREMENT SPECIFICATION (SRS)
001	**14/07/2018**	SOFTWARE DESIGN DOCUMENT (SDD)

Table of Contents

1. INTRODUCTION

1.1. Purpose

This test plan describes the testing approach and overall framework that will drive the testing of the Games Management System.

The document introduces:

- Test Strategy-test objectives assumptions made, test principles and data approaches are discussed.
- 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.

1.2. Project Overview

The Games Management System is a web-based application that will aid in the management of Games Management data at the games and sports level. The University Games Department uses the system to manage all the activities of the campus sports and games events.

The system has at least four modules which are:

i. Coordinator's module - Registers every sport in the university, adds and assigns every game to a patron, approves funds requested for by patrons, communicates directly with patrons, approves every sport events and activities and generate reports.
ii. Games patron module – Requests for funds, approves new students who wishes to join the sport, informs the coordinator about upcoming sporting events and activities, communicate directly with both the coordinator and students in his or her sport.
iii. Students' module – View upcoming events and activities, check whether remunerations have been disbursed, and communicate directly with the patron.
iv. Store clerk module – Manage inputs and outputs to the game department store including their source and current receptacle of a particular store entity.

The system requires every user to login in order to use it.

Being an electronic system, it will minimize the use of papers to store information on activities and individuals. It will also reduce the time taken to search and retrieve information about a particular activity or individual.

1.3. Audience

- The users of the system perform tasks specified in this document, and provide input and recommendations on this document.

- The Project coordinator reviews the document, tracks the performance of the test according to the task herein specified and approves the document.
- The System Developers ensures that the test plan and deliverables are in line with the design, provides the environment for testing and follows the procedures related to the fixes of defects.

2. TEST STRATEGY

2.1. Test Objectives

The objective of the test is to verify that the functionality The Games Management System works according to the specifications provided in the SRS.

The final product of the test is a ready- to use software;

2.2. Test Assumptions

Key Assumptions

- Production-like data is required and is available in the system prior to start of Functional Testing

General

- Exploratory Testing would be carried out once the build is ready for testing
- Test case design activities will be performed by the coordinators office
- Test environment and preparation activities will be owned by the developers
- The project coordinator will review and sign-off all test deliverables
- The developers will manage the testing effort with close coordination with the coordinator and the system users.
- The users of the system have the knowledge of the system prior to testing.
- The system will be treated as a black box. If the Games Management is reflected across the games coordinators portal and in the particular patron's portal, it will be assumed that the database is working properly. Ability to login will also determine the status of database connection.

Functional Testing

- During Functional testing, testing team will use preloaded data which is available on the system at the time of execution.
- The Test Team will perform Functional testing on all modules in the Games Management system.

2.3. Test Principles

- Testing will be focused on meeting the Games Management system objectives outlined in the proposal document- an easy to use and presentable system.
- Testing processes will be well defined, yet flexible, with the ability to implement any changes needed.
- Testing environment and data will emulate a production environment as much as possible.
- Testing will be a repeatable, quantifiable, and measurable activity.
- Testing process for the different user portals will have clearly defined objectives and goals.

2.4. Data Approach

- In functional testing, the four modules will contain pre-loaded test data and which is used for testing activities.

2.5. Scope and Levels of Testing

2.5.1. Exploratory

PURPOSE: the purpose of this test is to make sure critical defects are removed before the system is released for use.

SCOPE: All modules- Coordinator, patron, student and store clerk module.

TESTERS: Testing team who the users of the system.

METHOD: this exploratory testing is carried out in the application without a system documentation to guide the test team.

2.5.2. Functional Test

PURPOSE: Functional testing will be performed to check the functions of application. The functional testing is carried out by feeding the input and validates the output from the application.

User	Scenarios	Complexity	No. of Test cases
Coordinator	Login	Easy	7
	Manage patrons	Medium	4
	Manage events	Hard	5
	Make budget	Easy	3
Patron	Login	Easy	6
	View events	Easy	4
	Manage students	Medium	5
	Manage sports	Hard	3
Student	Login	Easy	5
	Register to an event	Medium	4
	View events	Easy	5
Store clerk	Login	Easy	6
	Manage items	Medium	5
	Manage borrowers	Hard	5
	Reports	Easy	4

Figure 1: Users and tasks

TESTERS: Testing Team which includes the Users of the system.

TEST ACCEPTANCE CRITERIA

1. Approved Software Specification document, Software Design Document with Use case documents must be available prior to start of Test design phase.
2. Test cases approved and signed-off prior to start of Test execution
3. Development completed, unit tested with pass status.
4. Test environment with application installed, configured and ready to use state
5.

TEST DELIVERABLES

S. No.	Deliverable Name	Author	Reviewer
1.	Test Plan	Group Secretary	Project Coordinator
2.	Functional Test Cases	Test Team-Users	System Developers

Figure 2: Testing Deliverables

2.5.3. User Acceptance Test (UAT)

PURPOSE: this test focuses on validating the business logic of the Games Management system. It will allow the end users to complete final review of the system prior to deployment.

TESTERS: the UAT is performed by the end users (Coordinator, patron, student, store clerk).

METHOD: Since the end users are the most indicated to provide inputs to the system and how the system adapts to them, it may happen that the users do some validation not contained in this Test Plan and write the test cases down. The System developers will review the UAT test cases based on the inputs from End user (Coordinator, patron, student, store clerk).

TIMING: Only after this test is completed the product can be released to production.

TEST DELIVERABLES

S. No.	Deliverable Name	Author	Reviewer
1.	UAT Test Cases	End Users	The System developers

Figure 3: UAT Deliverable

3. EXECUTION STRATEGY

3.1. Test Cycles

- There will be 1 cycle for login functionality testing and 5 cycles of testing for all other scenarios. Each cycle will execute all the modules. (Shown in figure 1).
- The objective of the first cycle is to identify any blocking, critical defects, and most of the high defects. It is expected to use some work-around in order to get to all the scripts.

- UAT test will consist of one cycle.

3.2. Test Metrics

The below are some of the metrics to measure the progress and level of success of the test.

Report	Description
Test preparation & Execution Status	Pass or Fail
Daily execution status	To report on Pass, Fail and system defects.
Test Process Status report	Reporting (As requested by the Project Supervisor)

Figure 4: Test Metrics.

3.3. Defect tracking & Reporting

The person testing the system makes a report of the defects, hands them to the selected Test Lead who then contacts the system developers to fix them. After the defects are fixed, the person testing re-tests the system again and if it is finally corrected the Defect Tracking phase is complete. Otherwise the system Developer is contacted again to fix the defects.

Following flowchart depicts Defect Tracking Process:

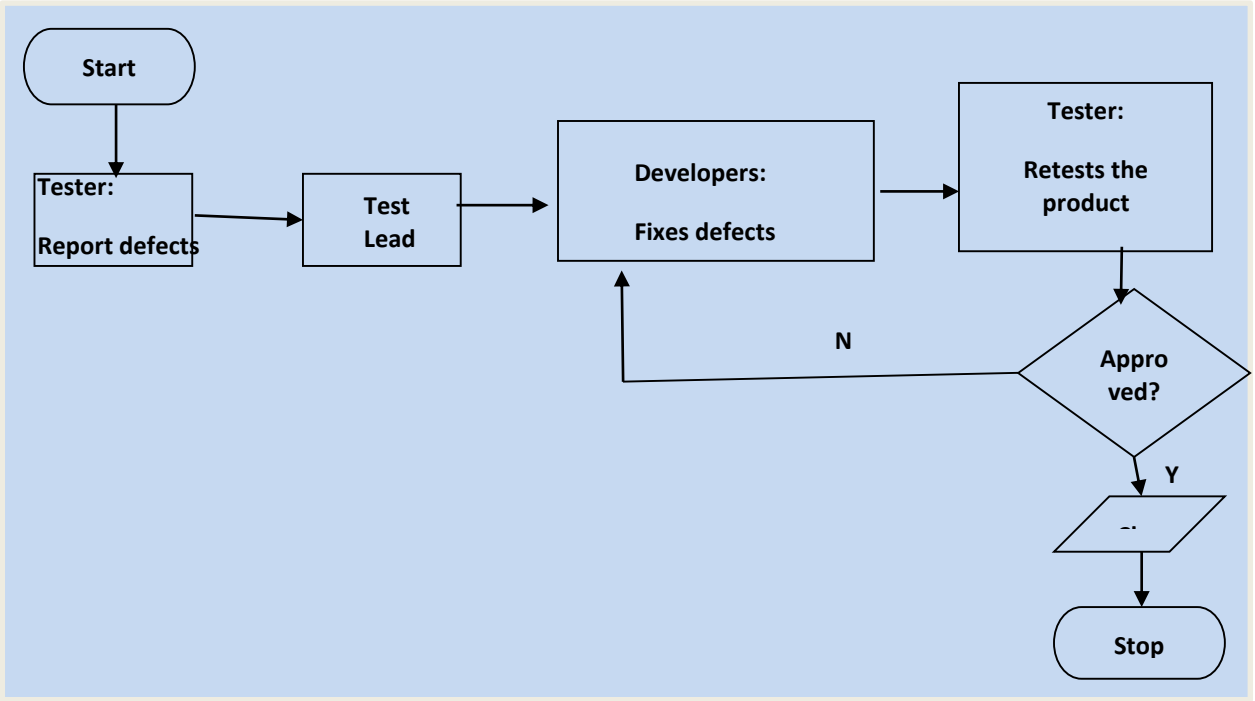

Figure 5: Defect Tracking Flowchart

4. TEST MANAGEMENT PROCESS

4.1. Test Design Process

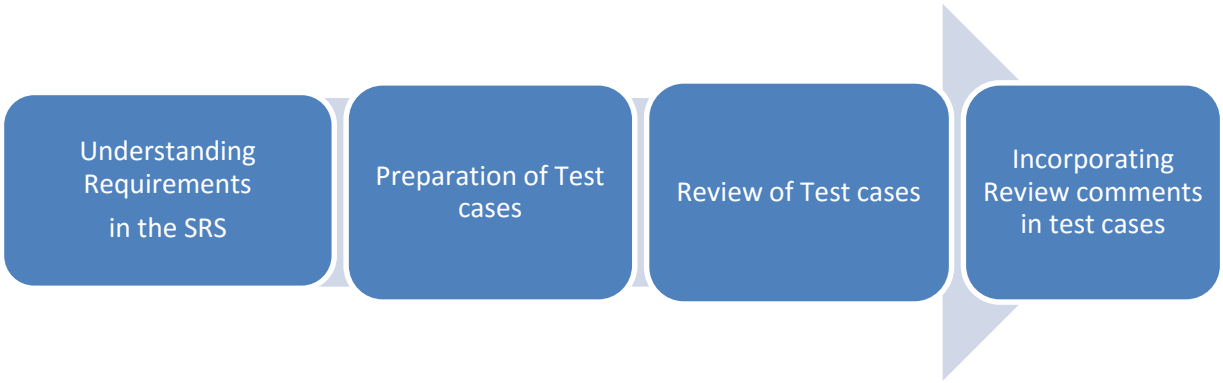

Figure 6: Test Design Process

- The tester will understand each requirement written in the SRS-System Specification Document and prepare corresponding test case to ensure all requirements are covered.

- Each of the Test cases will undergo review by the System Developers and the review defects are captured and shared to the Test Team-Users.
- During the preparation phase, tester will use the application, use case and functional specification to write step by step test cases.
- Any subsequent changes to the test case if any will be directly updated in the system.

4.2. Test Execution Process

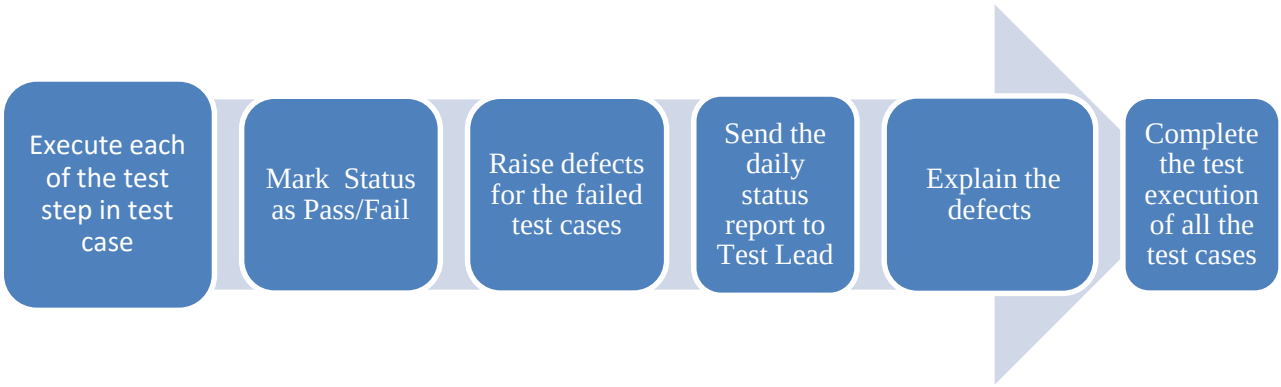

Figure 7: Test Execution process

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

4.3. Role Expectations

The following list defines in general terms the expectations related to the roles directly involved in the management, planning or execution of the test for the project.

	Roles	Name	Contact Info
1.	Project Coordinator	Mr. Odiyo	N/A
2.	Test Lead	Group manager	N/A
3.	Testing Team-Users	Coordinator Patron	N/A

	Roles	Name	Contact Info
		Student Store clerk	
4.	System Developers	Papa Jeremy Humphrey Adala Jackson Kingo'ra David Opiko Mike Omamo	N/A

4.3.1. Project Management

- Project Coordinator: reviews the content of the Test Plan, Test Strategy and Test Estimates signs off on it.

4.3.2. Test Team-Users

- Develop test conditions, test cases, expected results, and execution scripts.
- Perform execution and validation.
- Identify, document and prioritize defects according to the guidance provided by the Test lead.
- Re-test after software modifications have been made according to the schedule.

4.3.3. Test Lead

- Acknowledge the completion of a particular module testing process.
- Give the OK to start next level of testing.
- Facilitate defect communications between testing team and the system developers.
- System Developers reviews testing deliverables (test plan, cases, scripts, expected results, etc.) and provide timely feedback.

- Assist in the validation of results (if requested).
- Support the development and testing processes being used to support the project.
- Certify correct components have been delivered to the test environment at the points specified in the testing schedule.
- Define processes/tools to facilitate the initial and ongoing migration of components.
- Implement fixes to defects according to schedule.

5. TEST ENVIRONMENT

Since the system is locally hosted, a windows environment with a web browser, XAMPP apache server running, and PHP environment with MySQL database management system should be available to each tester.

6. APPROVALS

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

Signature:	
Name:	
Role:	
Date:	

Signature:	
Name:	
Role:	
Date:	