Test Plan

for

CU-Learning Management System

Prepared by

Group Name

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Contents

1 Introduction

1.1 Document Purpose

This test plan describes the testing approach and overall framework that will drive the testing of the CU-LMS. 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)

1.2 Project Overview

Learning Management System (LMS) aims to improve accessibility for the students of University. It is an essential product for all stakeholders of the customer such as faculties and students. It is being conceived in order to enhance the teaching learning process of our customer. The system will provide easy-to-access web based service which can give management an effective means of managing all resources.

1.3 Intended Audience

The document is intended for the people of following profession:-

- **Project Team**- Project team members perform their respective tasks specified in this document..
- **Stakeholder's Representatives –** As identified by project managers they are essential in providing their valuable input.

2 Test Strategy

2.1 Test Objectives

The objective of the test is to verify that the functionality of Learning Management System according to the specifications.

The test will execute and verify the test scripts, identify defects as per the entrance criteria, prioritize defects for future fixing.

The final product of the test is two fold:

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

2.2 Test Assumptions

Key Assumptions

- Product is in published phase for **UAT(**User Acceptance Testing**)** to take place.
- In each testing phase, Cycle 3 will be initiated if the defect rate is high in Cycle 2.

General

- Internal Scripts remain Undisclosed.
- Performance testing is not considered.
- All the defects would come along with snapshot.
- The Test Team assumes all necessary inputs required during Test design and execution will be supported by respective stakeholders.
- Test case design activities will be performed by QA Group.
- Test team will manage the testing effort.
- There is no environment downtime during test due to outages or defect fixes.
- The system will be treated as a black box; if the information shows correctly online and in the reports, it will be assumed that the database is working properly.

User Acceptance Testing

- UAT test execution will be performed by end users.
- Credentials produced by End user by their own will.
- Users whose credentials are being used are registered users.

2.3 Test Principles

Testing will be focused on meeting the business objectives, cost efficiency, and quality.

- There will be common, consistent procedures for all teams supporting testing activities.
- Testing processes will be well defined, yet flexible, with the ability to change as needed.
- Testing activities will build upon previous stages to avoid redundancy or duplication of effort.
- Testing will be a repeatable, quantifiable, and measurable activity.
- Testing will be divided into distinct phases, each with clearly defined objectives and goals.

2.4 Data Approach

In User Acceptance Testing, CU-LMS will continue functioning and no additional data requirement or loading is required.

2.5 Scope and Levels of Testing

Carrying out **UAT:**

PURPOSE: This test focuses on validating the business logic. It allows the end users to complete one final review of the system prior to deployment.

TESTERS: The UAT is performed by the end users and Tester after user permission.

METHOD: Test team to write the UAT test cases based on the inputs from End user and referring to SRS.

3 Execution Strategy

3.1 Strategy Overview

For UAT, Test Team will be developing Scenarios which would facilitate development of the test cases. All the test cases will be identified with a TC_ID and metrics would be pass or fail depending on the performance of the system.

3.2 Scenarios

Developed by the test team based on the user journey covering major aspects of the product which will be further broken into smaller components for test case development.

UAT: CU-LMS	
Project Name	CU-LMS
Module Name	Scenarios
Created By	Test Team
Created Date	30/04/2024
Peer Review By	-
Peer Reviewed Date	01/04/24

Test Scenario TID	Test Scenario Desciption	No. of Test cases	Priority	Executed QA Name
1	Login and Registration	2	P1	
2	Folders	2	P0	
3	Notification	2	P0	
4	Calendar	1	P0	
5	Sub- Folders	2	P0	
6			P0	

3.3 Test Case Development and Execution

Developed test cases to have a Pre-Condition (Entry Criteria) and Steps to Execute.

B	C	D	E	F	G
Scenario	Test Case Id	Test Data	Test Case Title	Pre Condition	Steps to Execute
	TC001	and password	Verify successful login	User account exists	and password 3. Click on the "Lo
	TC002	password	Verify unsuccessful login	User account exists	and password 3. Click on the "Lo
	TC003	password	Verify unsuccessful login	User account does not exist	and password 3. Click on the "Lo
	TC004	password fields	Verify unsuccessful login	User account exists	password fields empty 3. Click o
	TC005	Valid email address	Verify successful registration	User account does not exist	email address 3. Click on the "C
	TC006	Invalid email address	Verify unsuccessful registration	User account does not exist	email address 3. Click on the "C
	TC007	and matching	Verify successful registration	User account does not exist	email address 3. Enter matching
	TC008	and non-matching	Verify unsuccessful registration	User account does not exist	email address 3. Enter non-matc
	TC009	password, and	Verify successful registration	User account does not exist	email address 3. Enter password

After execution, the expected result (from SRS & Stakeholders) to be compared with the Actual Result which would determine the status of the test case.

H	I	J
Expected Result	Actual Result	Status
redirected to the home page		Pass
prompted with an error message		Pass
prompted with an error message		Pass
prompted with an error message		Pass
step of registration process		Pass
be prompted with an error message		Pass
step of registration process		Pass
be prompted with an error message		Pass
step of registration process		Pass

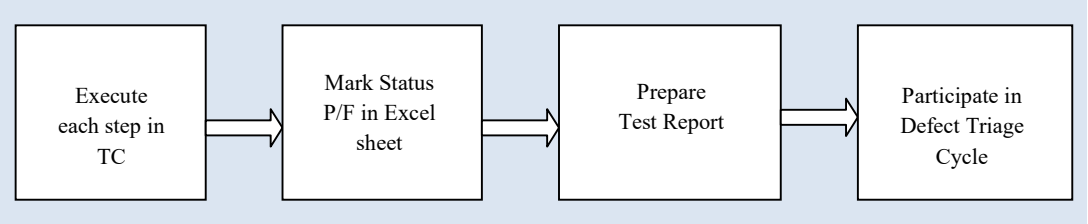
4 Test Management Process

4.1 Test Management Tool

Selenium IDE , MS Excel and MS word are the tools used in the UAT of LMS.

- New Project will be created in the Selenium IDE.
- Test suites will be created for each scenario.
- Test Suites will be having test cases for that scenario.
- Test cases will be executed using Selenium IDE in Microsoft Edge.
- Test case status will be updated in the excel sheet of the respective Test scenario.

4.2 Test Execution Process



- Once all Test cases are approved, Test Team will start the User Acceptance Testing the application.
- Each Tester is assigned Test cases via Excel Sheet.
- Each tester performs step by step execution and updates the executions status.
- The tester enters Pass or Fail Status for each of the step directly in Excel Sheet.
- Testing team will participate in defect triage meetings in order to ensure all test cases are executed with either pass/fail category.
- 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

4.3 Test Risks and Mitigation Factors

RISK	PROBABILITY	IMPACT	MITIGATION PLAN
TIGHT SCHEDULE	High	High	• Testing Team to prepare tasks in advance. • Add buffer while setting

			deadlines.
SCARCE RESOURCES	Medium	High	• Carry out Equipment check • Determine extra requirements before commencing the tests.
SCOPE DEFINITION	Medium	Medium	• Scope is defined but any changes may result in delay.
NATURAL DISASTERS	Low	Low	• Any Natural calamity resulting in communication breakdown , causes serious delays. • Team to be at independent locations. • Team to have independent work stations.
DELAY DUE TO HIDDEN ISSUES	Medium	High	• Unknown issues may even crash the product completely.

4.4 Communication plan and Team roster

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.

S.No.	ROLES	NAME	CONTACT
1	Project Manager	Alpha	xxxx-0001
2	Test Lead	Gurjot Gagan	xxxx-0002
3	Business Analyst	Bravo	xxxx-0003
4	Development Lead	Charlie	xxxx-0004
5	Testing Team	22bcs14842,22bcs14843	xxxx-0005
6	Development Team	Delta	xxxx-0006
7	Technical Lead	Echo	xxxx-0007

4.4.1 Project Management

Project Manager: Reviews the content of the Test Plan, Test Strategy and Test Estimates signs off on it.

4.4.2 Test Planning (Test Lead)

- Ensure scenarios are identified.
- Develop test plan and the guidelines to create test conditions, test cases, expected results and execution scripts.
- Provide guidelines on how to manage defects.
- Attend status meetings in person or via the conference call line.
- Communicate to the test team any changes that need to be made to the test deliverables or application and when they will be completed.
- Provide on premise or telecommute support.
- Provide functional (Business Analysts) and technical team to test team personnel (if needed).

4.4.3 Test Team

- Develop test conditions, test cases, expected results, and execution scripts.
- Perform execution and report preparation.
- 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.

4.4.4 Test Lead

- Acknowledge the completion of a section within a cycle.
- Give the OK to start next level of testing.
- Facilitate defect communications between testing team and technical / development team.

4.4.5 Development Team

- Review 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.
- Keep project team and leadership informed of potential software delivery date slips based on the current schedule.
- Define processes/tools to facilitate the initial and ongoing migration of components.
- Implement fixes to defects according to schedule.

5 Test Environment

CU-Learning Management System servers will be hosted by CU internally on their private domain.

A windows environment with Internet Explorer 8, 9 and 10, and with Firefox 27.0, as well as Google Chrome32.0/ Edge Browser and later should be available to each tester.

6 Approvals

Signature:	
Name:	
Role:	
Date:	