PROJECT DOCUMENTATION

PROJECT TEST PLAN

Project: Driving School Management System for Harrison's Learners

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PRINCE2

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Owner: Group 05

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1   Project Test Plan History

1.1   Document Location

This document is only valid on the day it was printed.
The source of the document will be found on the project's PC in location.
The documents will be uploaded to the BREO and each student receives a copy in the form of emails.

1.2   Revision History

Date of this revision:22.03.2024
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Revision date	Previous revision date	Summary of Changes	Changes marked
22.03.2024	-	First issue	

1.3   Approvals

This document requires the following approvals.
Signed approval forms are filed in the Management section of the project files.

Name	Signature	Title	Date of Issue	Version
Dr.Yasas Jayaweera		Project Supervisor		1.0
Mr. R. R. W. P. W. M. R. L. B. Halangoda		Project Manager	20/03/2024	1.0
Mr. S. N. Wijethilaka		Client	20/03/2024	1.0

1.4   Distribution

This document has been distributed to:

Name	Title	Date of Issue	Version
R. R. W. P. W. M.R. L. B. Halangoda	Project Manager	22/03/2024	1.0
R. S. Promodi Eshara	Start-up Manager	22/03/2024	1.0
T. N. Welarathna	Quality Manager	22/03/2024	1.0
K. L. G. Lasan Chanuka	Risk Manager	22/03/2024	1.0
G. L. Rashmi Navodya	Scheduling Manager	22/03/2024	1.0

2.Table of Contents

3. Introduction

This document mentions how the website developed for Wisdom Tutors is going to be tested. It contains everything about the testing methods, tools and techniques used by Quality Manager. By using those methods, it is described how the quality will be maintained to develop the system that meets the client's requirements.

4. Test Items

The purpose of this testing process is to create a website that meets the client's requirements with minimum errors. Accordingly, this system will be tested in different steps. By doing so, front end, back end, database, and documents related to all these situations will also be tested. Accordingly, when testing the system, it will run in Google Chrome using Hosted website and tested as web application, and all documents will be tested under several point related to a document inspection.

5. Approach

The Quality Manager collects all the necessary testing details and arranges them into test cases. Initially, each part of the system undergoes detailed testing to catch any errors, which are documented in the test cases. Subsequently, all system components are tested together to ensure smooth operation, aided by automation tools. Then, specialized tools are employed to assess the system's performance. Finally, a comprehensive test of the entire system is conducted before presenting it to the client. The client then evaluates the system and provides feedback, which is crucial for acceptance testing. All test outcomes, whether passing or failing, are meticulously recorded in the test cases.

6. Types of Testing

It is planned to test this system using several testing methods. Those are,

- Unit Testing
- Automation Testing
- Manual Testing
- Performance Testing
- Final System Testing
- Acceptance Testing

7. Features to be Tested

Task No	Task	Expected Result
1	Login Page	Successfully login with credentials
2	Admin Dashboard and features	Successfully load the anticipated pages
3	Student Dashboard and features	Successfully load the anticipated pages
4	Instructor Dashboard and features	Successfully load the anticipated pages
5	AI chat assistant (Driving Assistant)	Successfully respond to user queries and provide helpful assistance.

8.Features Not to be Tested

All features should be tested to ensure a quality system without errors.

9. Item Pass/Fail Criteria

All system features must undergo testing, and all details should be documented using test cases. Each test is evaluated as either successful or unsuccessful, aiming for a passing rate of at least 95%. In case of errors or bugs, they are noted down and the tests are repeated after resolving them.

10. Suspension Criteria and Resumption Requirements

Due to some reasons, there may be cases where it is not possible to carry out the planned testing activities. Some such cases are given below.

Suspension criteria

- Unforeseen software compatibility issues arising from updates or patches.
- Third-party dependencies not being fulfilled or causing delays in testing progress.
- Unexpected hardware failure in laptops.
- Delays in development caused by insufficient client feedback.
- Client frequently changing system requirements.

Resumption Requirements

- Ensuring timely communication with the client to gather pertinent information and ensure accurate development.

- Implementing a robust backup strategy to mitigate risks associated with hardware failures.
- Conducting a comprehensive risk assessment to identify potential challenges and develop mitigation strategies.
- Implementing contingency plans for managing unforeseen circumstances that may impact project progress.

10.Test Deliverables

- Quality Plan
- Configuration Management Plan
- Test Plan
- Quality Log
- Automation Test Cases
- Manual Test cases
- Selenium Automation Testing Results
- Lighthouse Testing Results
- Test Summary

11.Testing Tasks

Testing must adhere to the specified methods outlined above. Additionally, ensure completion of the Quality Plan and Configuration Management Plan. Maintain a quality log for each testing phase and keep a checklist for documents.

12. Responsibilities
 Quality Manager will be responsible for all testing activities.

- Develop test plan and write test cases.
- Write test cases for every test activity
- Update Quality log
- Maintain a checklist
- Inform team members about errors.
- Review and optimize testing processes

13. Environmental Needs

- Visual studio code for develop the website
- Selenium IDE for automation testing

- Lighthouse Tool to test the performance of the system
- Xammp server for run backend
- Google chrome or Microsoft Edge to run the website
- Dialog flow for develop the AI chat assistant

14. Staffing and Training Needs

- The Quality Manager needs to know how to use automation testing tools.
- Understanding coding well is important.
- They should know about artefacts.
- Good communication skills are necessary.
- Experience with documentation is required.
- It's encouraged to keep learning and developing professionally.

15. Schedule

A timetable has been set to ensure both development and testing phases are completed on time. The Quality Manager is responsible for following these timeframes for each testing method carefully. It's crucial to complete all tasks as per the schedule and maintain open communication with the development team. The Gantt chart shows the time allocated for testing activities, helping us track progress and stay on schedule.

16. Risks and Contingencies

Risks

- Limited time and resources available.
- Difficulties in team communication.
- Unexpected problems may arise.
- Technical limitations could slow down the project.
- Project scope might expand due to changing client needs.
- Insufficient engagement from stakeholders.

Contingencies

- Ensure a full understanding of client requirements.
- Adjust testing methods to accommodate changes.
- Maintain good relationships among team members.
- Allocate extra resources if needed.
- Establish clear channels for communication to address issues.
- Have backup plans ready for critical project aspects.

17. Approvals

Any changes to the system must be approved by both the project manager and the client. The project manager carefully monitors any modifications or problems within the project and ensures timely communication with team members about them. By staying attentive, the project manager encourages transparency and cooperation among all project stakeholders.