PROJECT DOCUMENTATION

**PROJECT QUALITY PLAN**

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| **Project:** | **E-Commerce Web Application with AI Chatbot for Omantha Tire House** |
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| Author: | Keshara Dissanayake (Quality Manager) |
| Owner: | Omantha Tire House |
| Client: | Mr. Omantha Asela Kumara |
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# 1 Project Quality 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

## 1.2 Revision History

**Date of this revision:**

**Date of Next revision:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Revision date** | **Previous revision date** | **Summary of Changes** | **Changes marked** |
|  |  | 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 Executive |  | 1.1 |

## 1.4 Distribution

This document has been distributed to:

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Title** | **Date of Issue** | **Version** |
| Sachith Wijesiriwardhana | Start-up Manager | 02/21/2023 | 1.1 |
| Vinod Sahan Nawarathna | Project Manager | 02/21/2023 | 1.1 |
| Keshara Dissanayake | Quality Manager | 02/21/2023 | 1.1 |
| Malith Edirisinghe | Risk Manager | 02/21/2023 | 1.1 |
| Rivi Thushara | Scheduling Manage | 02/21/2023 | 1.1 |

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# Project Quality Plan

## 3 Purpose

The Project Quality Plan is part of the Project Initiation Document (PID). This document’s objective is to specify the quality procedures and standards necessary to guarantee that the finalized software product satisfies established standards for quality. This describes the procedures that team members must follow to keep the product’s quality at a high level. The document describes the customers quality requirements, quality responsibilities, how quality control will test the product, how to allocate configuration management activities, and which tools we will use to ensure quality.

## 4 Customer’s Quality Expectations

* **Performance:** The web application should be able to perform each function without any lags and should load quickly.
* **Security:** To prevent wasteful involvements and problems, the online application must have sufficient security.
* **Durability:** There should be no interruptions to any of the functionalities. It is expected that the hosting service would have greater uptime and uninterrupted database access.
* **Reliability:** The web application’s performance must be stable.

## 5 Acceptance Criteria

* The project must be finished in the given timeframe.
* All the features that the client has requested should be used and perform as expected.
* Product must meet the required security standards.

## 6 Quality Responsibilities

* **Project Executive** – The project executive plays a critical role in ensuring that the project meets its quality objectives and delivers value to the organization. By providing strategic direction, governance, and support, the project executive helps to ensure that project is delivered on time, within budget, and to the expected quality standards.
* **Client** – The client also plays a critical role in ensuring that the project meets its quality objectives and delivers value to the organization. By participating in quality management activities and providing feedback on the project’s quality status, the client can help to ensure that the project is delivered on time, within budget, and the expected quality standards.
* **Quality Manager** – Keshara Dissanayake has been chosen as the quality manager by the development team otherwise, the group will provide updates to the client and seeking their feedback. It is necessary for the development team’s quality manager to carry out Junit testing, which calls for the quality manager to look at the artefact’s internal structure while carrying out other testing methodologies like unit testing, integration testing, system testing, and acceptance testing. This gives the development team the assurance that the client’s requirements have been met. The quality manager will encourage the client to participate in acceptance testing, which will enable the client to critically assess the product, together with the development team in order to increase transparency on the artifact’s progress

## 7 Applicable Standards

A web template will be used for the website to give it a professional appearance, and the quality level will be increased in accordance with PRINCE2. Making changes to the template is equally simple.

## 8 Quality Control and Audit Processes

To ensure the quality of the final product, the team follows to a set of triggers known as “Software Quality Control (SQC)”. The SQC will be limited to the reviewing phase of artefact development, verifying that the completed artefact matches the client’s standards.

**Reviews**

* Requirement Review
* Design Review
* Code Review
* Test Plan Review
* Test Cases Review
* Documentation Review

**Testing**

* Unit Testing
* Integration Testing
* System Testing
* Acceptance Testing

## 9 Specialist Work Quality Control and Audit Processes

A daily log that shows the task and its current state is used to track progress. This is frequently noted by the project manager, who then presents the project official with this daily log so that the task official can assess how the project is progressing.

Along with the deadline and the actual completion date, the quality manager will also create a quality log that will be used by the venture official to determine whether the project is on schedule.

## 10 Change Management Procedures

The change management method will be implemented parallelly with the development of the artifact. The current plan will be followed for any further work on time. The current system and the suggested system will be contrasted in order to assess the implementation of the system’s success. The group will follow the PRINCE 2 development approach and keep track of any adjustments made as the functionalities are developed. The performance measurement standards for the target system will be Project Cost, Risk Management, Execution, and Minimum Disruption. The project board will assess any alterations made by the construction and contrast them with the original design.

## 11 Configuration Management Plan

* **Configuration Identification –** It involves identifying, specifying, and documenting the functional and physical characteristics of the system as well as its demands, which include interoperability and interface specifications.
* **Configuration Control –** It is an activity whose objective is to guarantee that management is informed of and approves of any system modifications.
* **Configuration Reporting –** It is the process by which testing is done to make sure the configuration requirements are met.

## 12 Quality Tools

* Selenium
* PHP Unit

We tested the overall quality and performance of our system using the Selenium tool and PHP Unit. It determines if they are responsive, progressive, or consistent.

**Selenium**

This framework for testing web application is portable. Without needing is portable. Without needing to learn a test scripting language, it provides with a replay tool for building functional tests. The early discovery of problems is made easier by this automation.

**PHP Unit**

PHP Unit is an effective tool for testing the functionality of PHP code and for finding flaws before they are used in production. It is regarded as one of the essential tool for developing PHP.