

PROJECT DOCUMENTATION

PROJECT QUALITY PLAN

Project: **E-commerce website for Caramels and Almonds**

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PRINCE2

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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

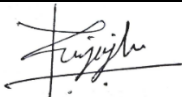

Date of this revision: 02/07/2023

Date of Next revision:

Revision date	Previous revision date	Summary of Changes	Changes marked
02/07/2023	-	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 Board	02/06/2023	1.0
Pruthuvi Wijesinghe		Project Manager	02/06/2023	1.0
Miss. Senuthi Wijesinghe		Client	02/06/2023	1.0

1.4 Distribution

This document has been distributed to:

Name	Title	Date of Issue	Version
Pruthuvi Wijesinghe	Project Manager	02/06/2023	1.0
R.S.Senarathna	Quality Manager	02/06/2023	1.0
A.S.De Silva	Risk Manager	02/06/2023	1.0
Hasini Jayasekara Vithanage	Scheduling Manager	02/06/2023	1.0
H.M.Pumudi Chamalka Kumari Herath	Start-up Manager	02/06/2023	1.0

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Project Quality Plan

3 Purpose

The quality of the software is one of the main factors that must be taken into account throughout the software development. Several concerns about the quality of the software could possibly come up. As a result, the software development life cycle (SDLC) places a high priority on quality maintenance. The main goal of this quality management plan is to make sure that the proposed project meets the needs of the user and is of appropriate quality. Furthermore, this document will define a series of methods and testing mechanisms that will aid in creating software that meets high standards. Also, it specifies the main roles and responsibilities that must be assigned in order to maintain and improve the quality of the software product. The project quality plan is part of the project initiative document (PID).

4 Customer's Quality Expectations

The main result of this proposed project will be a fully functional e-commerce website for 'Caramels and Almonds', which is what the client primarily expects. A website's quality can be ensured in a number of ways. The quality of the final product will be assessed using the following metrics.

- **Functionality:** Ensure that the website is functioning properly in every section so that the client will receive a fully functional website.
- **Usability:** The development of this website should be done in accordance with the standards and limitations specified during the planning stage. Each component should be evaluated in various kinds of expected and unexpected situations. Make sure that the website regularly produces the outcomes the client is looking for.
- **Maintainability:** The website should be able to change and expand functionality, as well as address problems.
- **Learnability:** Any user should be able to make use of this website with minimal IT knowledge.

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- Responsiveness: Any modern web browser and any current device, such as a computer or a smartphone, must be able to view the system.
- Appearance: The proposed website should have a professional appearance with user-friendly interfaces.
- Reliability: When expected, the website should be able to consistently and correctly carry out its intended functions.

5 Acceptance Criteria

According to the user requirements, the proposed website must fulfil the following conditions in order to be considered as a fully functional e-commerce website:

Functional Criteria -

- Manage the available cakes by performing add, update, or delete operations
- View and manage orders
- Manage the categories of available cakes
- View available cakes on the website
- Perform the add-to-cart operation
- Manage the prizes won by the customers using the spinning wheel
- Manage payments through a payment gateway
- Provide an artificial intelligence-based chatbot function for assisting

Non-functional Criteria -

- Protect all user information
- Maintain the database effectively
- The website should be available at any time
- Provide a reliable website
- The website should be easy to navigate

6 Quality Responsibilities

R.S Senarathna works as the project team's quality manager. He is in charge of ensuring and enhancing the project's overall quality. Verifying that the project has been carried out in accordance with the necessary standards and requirements is crucial.

To assure the quality of the final product, the project needs to be tested in various ways. Some of the techniques that will be used to identify problems or errors in the system, documents, or development process are as follows.

- Verify the website's entire content to ensure that it is grammatically correct and conveys the intended message to the user.
- Determine whether each form can be completed correctly and whether any errors are displayed when inputting incorrect data.
- Ensure that all information submitted through forms is kept appropriately in the necessary database.
- Verify the accuracy of all the data in the database.
- Ensure that all buttons and hyperlinks direct users to the correct web pages.
- Ensure that every action users may perform produces the desired result.
- Ensure that all interfaces are user-friendly and that the styles are appropriate for the client.
- Test the website's responsiveness across various platforms, including desktops, smartphones, and tablets.

To ensure the format and quality of all project-related documents:

- Verify that all page headings and titles are appropriate in terms of semantics, heading level, and text case.
- Examine each document for consistency in fonts, colour, etc.
- Examine the content to see if it is accurate, valid, and uses correct grammar and spelling.
- Ensure that all of the images and tables are properly aligned and have captions.

7 Applicable Standards

As developers, you make sure that you do the task more quickly and effectively, always seeking to produce the best possible product that fits the client's needs. Also, the system's outstanding quality will be assured in order to gain the client's trust. Building, what you state, is what quality stands for. In order to ensure the product and its functionalities are operating as planned, documents with specifications, requirements, features, and instructions will be delivered. Clients are driven to assign future projects when high-quality products are produced because they are confident that the project will finally result in the way they want.

Documents that contain information about the quality standards can be used at any time to ensure that the system is working according to the client's preferences. These documents may contain standards, requirements, rules and regulations, or features. In the end, achieving the highest quality enables it to maintain the lowest pricing rates among peers while increasing market demand.

8 Quality Control and Audit Processes

Test cases will be used for each part of the website because it is crucial to guaranteeing the necessary level of quality. In order to increase user functionality, Selenium will be used as an interface testing framework. The client will be given a working prototype to test the website, and the project board will evaluate the progress of the project on a weekly basis. Software Quality Control (SQC) refers to a set of techniques used to ensure the program's quality. A collection of specified guidelines shall be followed in order to carry out this quality control operation. It will be applied to verify the parameters and rate their accuracy.

Testing methods –

- Unit testing: Software is tested independently on each of its components or units through unit testing. It often focuses on checking small pieces of code, like functions or methods.
- Integration testing: Integration testing is carried out to confirm cooperation and communication between various software modules or components. It guarantees that the integrated units function as intended.

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- System testing: System testing is done on the entire integrated system to see whether it meets the requirements. It confirms that the system performs as a whole and achieves the required goals.
 - Acceptance testing: Acceptance testing is carried out to determine whether the system meets the business requirements and is suitable for delivery to the client and customers.
 - Prototype testing: When a software prototype or early version is available, prototype testing is carried out. In order to validate the prototype's design, usability, and functionality, it gathers input from users and stakeholders.

Reviewing methods –

- Review the documents
- Review the design
- Review the code
- Review the test cases
- Review the test plan

9 Specialist Work Quality Control and Audit Processes

The quality manager will examine each of the quality components necessary for the project's success during the quality control and audit phases.

Quality control -

With the help of the team members, the QA Engineer evaluates the quality control procedure outlined in Section 8. All quality control procedures are also examined, verified, and repeated by the project team as necessary. In the end, client feedback is taken into consideration, along with any necessary alterations, in order to improve the concept.

Audit process-

The project manager will evaluate every document produced throughout the project, and all deliverables will be finished and audited.

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When ensuring the success of this process, the quality manager will keep a quality log and a quality checklist. The quality manager will keep track of the quality checks to be performed using the quality log and assign responsibilities for making any necessary adjustments to the team members. The quality manager examines completed documents and all components using the quality checklist to make sure they fulfil the standards for quality. Selenium will be utilized as an external tool for interface testing.

10 Change Management Procedures

The project proposal should be modified and submitted to the project board whenever the client or project board determines that a security component of the proposed project needs to be updated or a new component should be included. In contrast to what the project board first decided, any adjustments that must be made will be disclosed, followed by an evaluation by an appropriate professional. The PRINCE2 modification control system is followed by appropriate change management processes.

11 Configuration Management Plan

[Allocate responsibilities for Configuration Management to appropriate functions, groups or individuals. Include any interfaces with existing Configuration Management systems and list those products that will come under Configuration Management Control]

12 Quality Tools

The UI testing for the proposed project will be carried out using Selenium. The quality manager of this team will develop the automated Selenium tests. SonarQube and WPScan will be used along with some other tools for penetration testing to assess the safety of the proposed website and hosting environment.