# Project Specification: QA Store

# Introduction

The purpose of this document is to outline the group project specification that you will be working on during the final weeks of training. This project will encapsulate concepts from all core training modules, including:

* Agile & Project Management
* Databases
* Programming Fundamentals
* Front-End Web Technologies
* Full-Stack Development Technologies

# Objective

The overall objective of the project is:

* To create a simple online storefront, fully conforming to a provided client specification. This will involve the use of supporting tools, methodologies and technologies that encapsulate all modules covered during training.
* Your team is tasked with building an easy-to-use and attractive website that provides information about various products, product categories, pricing, and upcoming sales.
* Some features have been identified by the client as "essential", while others are "desirable".
* Prioritisation of these features is key to the success of your team.
* There is time for two 2-day Sprints before the site is scheduled to "go live".
* If you wish to use any technologies which have not been covered as part of your training, you must consult your trainer first.
* You are required to plan your approach using the design techniques you have learned.

# Scope

The minimum requirements for this project are as follows:

* Full commitment to an Agile approach, including daily stand-up meetings and utilisation of Sprints, user stories, acceptance criteria, story points, and effective communication within the team.
* A Kanban board with full expansion on user stories and tasks needed to complete the project, along with a record of any issues or risks encountered during project creation.
* Code integrated into a central repository on a Version Control System, utilizing issues, pull requests, merge requests, and any other aspects deemed appropriate.
* You should consider the concept of MVP (Minimum Viable Product) as you plan your project.
* Ensure that you complete all the Client requirements before adding extra functionality that is not explicitly specified.

# Constraints

The time constraints for this application will be discussed when this specification has been distributed to you.

The application must strictly adhere to the following technological constraints:

* Version Control System: Git
* Source Code Management: GitHub
* Kanban Board: Jira

# Full-Stack Development Technologies:

* Database Management System: MySQL
* Back-End Programming Language: Python
* API Development Platform: Flask
* Front-End Development Framework: HTML, CSS, JavaScript

# Deliverable

The final deliverable for this project is the completed application with full documentation around utilisation of supporting tools. This will require a fully functioning application.

Given the above, you will therefore be required to track your designs and workflow (e.g. through screenshots) throughout the duration of the project, with emphasis on how Agile methodology shaped the application over time.

You will be required to utilize the Feature-Branch Model, and to push a working copy of your code to the main branch regularly. It is recommended to use the feature- naming strategy for your feature branches.

All supporting documentation for your project should be included in your remote repository at the close of business on the day of presenting your project.

# Website Requirements

These requirements are regarded by the client as essential components of the online storefront, thus they should be part of your Minimum Viable Product (MVP).

## Home Page:

The online storefront should have a welcoming home page. The home page shall:

* Be visually appealing
* Serve as the default for the entire site
* Allow users to navigate to other sections of the site from here
* Communicate the site's purpose to the visitors
* Have pictures or graphics that are relevant to the products being sold

## Product Listing Page:

The site needs a page that lists all available products. This page should:

* Be part of the overall site navigation
* Display product images, descriptions, and pricing
* Have at least 4 different product images on display
* Each product should have its own dedicated page with more details

## Category Page:

The site should have a page dedicated to product categories. This page should:

* Be part of the overall site navigation
* Display different product categories
* Provide users the ability to view products by category

## Cart Page:

The site should have a dedicated page for the shopping cart. This page should:

* Show all products added by the user to the cart
* Display the total price of all products in the cart
* Provide users the ability to modify the quantity of each product in the cart
* Have an option to proceed to the checkout page

## Checkout Page:

The site should have a page dedicated to checking out. This page should:

* Be part of the overall site navigation
* Display a summary of the cart
* Allow users to enter their shipping information

## Payment Page:

The site needs a page for processing payments. This page should:

* Be part of the overall site navigation
* Collect payment information from the users such as cardholder's name, card number, expiry date, and security code/CVC
* Include a mechanism for passing on the payment details to a mock external payment processor

## Contact Us Page:

The site should have a page dedicated to providing contact information for the store. This page should:

* Be part of the overall site navigation
* Include store address, phone number, and email
* Include a contact form for users to submit inquiries or feedback

## About Us Page:

There should be an About Us page. This page should:

* Be part of the overall site navigation
* Provide information about the store, its mission, and its history
* Include information about the team behind the store

In addition to the requirements above, the website should maintain a uniform look and feel across all pages. The navigation menu should be consistent and easily accessible. The website should also be mobile-responsive to ensure a pleasant shopping experience on all devices.

The site's design should align with the brand's identity and appeal to the target audience. Colours, fonts, and imagery should be selected thoughtfully to create a cohesive and engaging user experience. The site should also load quickly to retain user attention and minimize bounce rates.

All of these are deemed as 'essential' components and should be part of your Minimum Viable Product (MVP). Complete them as soon as possible and then consider adding 'desirable' features.

## Website Wishlist

* These are considered 'desirable' components of the online storefront by the Client, and therefore should not be part of your MVP, but can be added later on.

## Search Functionality:

* The site should allow users to search for products.
* Be accessible from all pages of the site
* Return a list of products that match the search criteria

## Page Header & Footer:

Each page of the site should contain a consistent header and footer, with links to commonly accessed pages.

* The footer should be identical on all pages of the site.
* The footer should link to the Home Page, About Us, and Contact Page.

## Development Process Description:

The About Us page should include a description of the development process used to build the site.

The page should link to various resources that provide further insight into the specific technologies used (Python, Flask, MySQL, Docker, Terraform).

The page should describe the development process at a high level.

The page should explain how the team used Git and Jenkins for version control and continuous integration and how it affected the creation of the site.

The section of the page dedicated to this content should be visibly distinct and separate from the other content on the page.

## Custom Logo:

The site should have a custom logo on the front page that depicts the site’s name and a graphic relevant to the products being sold.

* The logo must be original.
* The logo may incorporate elements from other images with due credits.
* The logo must appear on the front page.
* The logo should complement the overall design and aesthetic of the site.

Please note, while these features would certainly enhance the user experience of the online storefront, they are not essential for the initial version of the site. Therefore, they should be considered for future development phases.