

Soft10101 – (2023-2024)

# Project proposal

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## 1 Executive Summary

The project aims to develop an Online shopping website system using C++ for academic purposes. The system will provide a platform for users to browse, select, and purchase products, conveniently. With a **UI** user-friendly interface and efficient backend, the system will

**Commented [SA1]:** The first step to completing a Project Proposal is to write an Executive Summary. This section will summarize the entire document by describing the background for the project and the proposed Vision, Goals and Timeframes. In essence, it sets the scene for the project and makes the document enticing enough to read and endorse, so that the project can be kicked-off.

Source : <https://www.projectmanager.com>

facilitate seamless shopping experiences for customers while offering administrators robust management tools.

## 2 Requirements

- User Registration/Log in: A user must register himself to create an account.
- Product CatLog: A user must search various products with details such as name, description, price, and availability.
- Shopping Cart Functionality: A user will add products to their carts for later purchase and manage items within the cart.
- Checkout Procedure: A user will finalize their purchases, including options for payment and shipping.
- Admin Panel: A user will create an administrative interface for managing products, orders, user accounts, and website settings.
- Security: A user will implement robust security measures to protect user data, prevent unauthorized access, and secure online transactions.

## 3 Solution

- User Authentication: Utilize secure authentication mechanisms such as password hashing and session management to ensure user account security.
- Database Management: Implement a relational database system to store and manage product information, user data, and order details efficiently.
- GUI Development: Utilize C++ libraries such as Qt or GTK to develop a user-friendly graphical interface for both customers and administrators.
- Payment Integration: Integrate with third-party payment gateways to facilitate secure online transactions and support various payment methods.

## 4 Proposal

I propose to develop an online shopping website system in C++ that meets the outlined requirements and solutions. I will follow a systematic development approach, including requirement analysis, design, implementation, testing, and deployment. I will leverage best practices in software engineering and utilize appropriate tools and technologies to ensure the success of the project.

### 4.1 Vision and Goals

This would be an online platform in which customers can shop clothing products, in which, they will be ask for different categories like the colors and the sizes. Once they will add that product to the basket, the system will ask for checkout. The system will ask for some personal details like; first & last name, mobile number, email address and residential address. I will also offer some vouchers and coupons, and after applying that, the program will ask for payment details. The payment details could either be Cash On delivery, via card or apple pay. After doing the payment, it will show that your order is placed/confirmed.

### 4.2. Deliverables

Project Deliverables		
Title	Description	Notes

**Commented [SA2]:** Most projects are created to either solve a business problem or realize an opportunity in the market. This problem or opportunity is the reason that the project is being kicked-off, so you need to describe it here in depth.

#### Business Problem

If you have a business problem that needs to be solved by this project, then describe the problem in depth here. Describe the type of problem and symptoms that the business is experiencing as a direct result of the problem. For example, a business problem might be that it is struggling financially, has poor communication or low customer satisfaction.

#### Business opportunity

If you have a business opportunity that needs to be full-filled by the project, then describe it in depth here. Describe the environment within which the opportunity exists, the timeframe in which the opportunity must be taken up on and the way in which the opportunity must be realized. An example of an opportunity is that there is a gap in the market segment for a particular product or service, there is a new technology which can improve the business, or a regulatory change has meant that the business can provide a new product or service that it could not before.

**Commented [SA3]:** describe the project that you are proposing is initiated.

**Commented [SA4]:** State the vision and goals of the project. They need to be "Smart" which means *Specific, Measurable, Action orientated, Realistic and Time based*. Where possible, try and link in the business problem or opportunity into the Vision so that the project team knows exactly what is being solved by the vision.

Here is an example of a project vision:

*"Our vision is to improve customer satisfaction by 25% by 1<sup>st</sup> Jan 2013 by offering new services to our high-value clients".*

Then, list 3 goals which relate to our vision above. Again, make them SMART. Here are some examples

1. "To release a customer satisfaction survey by 1<sup>st</sup> January 2012"
2. "To upgrade our Customer Relationship Management system by a 1<sup>st</sup> June 2012"
3. "To have a personal relationship with all our high-value customers by 1<sup>st</sup> January 2013"

[list here]	[list here]	[list here]
[list here]	[list here]	[list here]
[list here]	[list here]	[list here]

## 5 Approval

### student

*Name: Maryam Farooq*  
*Date: 16/02/2024*

### Lab Tutor

*Name:*  
*Date: \_\_ / \_\_ / \_\_*