International School

CMU-CS 246 VIS

PROJECT PROPOSAL DOCUMENT

Version 1.1

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STORE MANAGEMENT SYSTEM

(SMS)

Submitted by

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Name	Signature	Date
Thuan, Nguyen Trung	_____	25 - May - 2024

PROJECT INFORMATION			
Project Acronym	SMS		
Project Title	Store Management System		
Start Date	15 -March- 2024		
End Date:	25 - May - 2024		
Lead Institution	International School, Duy Tan University		
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DOCUMENT INFORMATION			
Document Title	Project Proposal		
Author(s)	Team 4		
Role	Developer		

Date	15 - March - 2024	File name	CMU-CS 246 VIS Proposal Document
URL	https://github.com/hailenquang/team4_cs246_VIS.git		
Access	Project and CMU Program		

REVISION HISTORY

Version	Person(s)	Date	Description	Approval
Draft	Hoang Thanh An	21 - March - 2024	Initiate proposal	x
1.0	All members	26 - March - 2024	Finish content of proposal	x
1.1	Quang,An	28 - March - 2024	document modification	x

1. Introduction

Introducing

- The application is developed based on practical needs to support online store management and phone management. This application is built around deployment for an organization that performs store management.

- The application can perform the following functions: Management: View revenue, manage and view the application's revenue visually. Manage orders, control order status on the application. Customer information, view customer information including name, phone, home address. Add employees, function to add employees for easy management. Add products, add new products easily. The application is built on a foundation of App applications, mobile applications, using APIs and services to provide consumers...

2. Problem Definition

2.1. Business needs

- Suppliers need an application that can manage their stores

2.2. Business values

- Users can act quickly and provide clear information. Manage their store quickly and securely.

2.3. Business goal

- Build applications that can quickly respond to user requests, can support users quickly and effectively, etc.

2.4. Project Solution

Creating a basic application makes it easy for users to find support when they need it.

Staff can:

- See product list
- Create invoices
- View history

Admin can:

- Manage Customer Information
- Manage Employee Information
- View and collect revenue statistics
- Add and delete products

- Order management

3. Current Status of Art

- Currently, there are a number of management applications on the market, but they do not ensure enough functionality or the best user support.
- Therefore, our application was created to meet the needs of sellers. They can choose the necessary functions to meet their needs quickly and effectively.

4. Engineering Approach

4.1. System Context Diagram

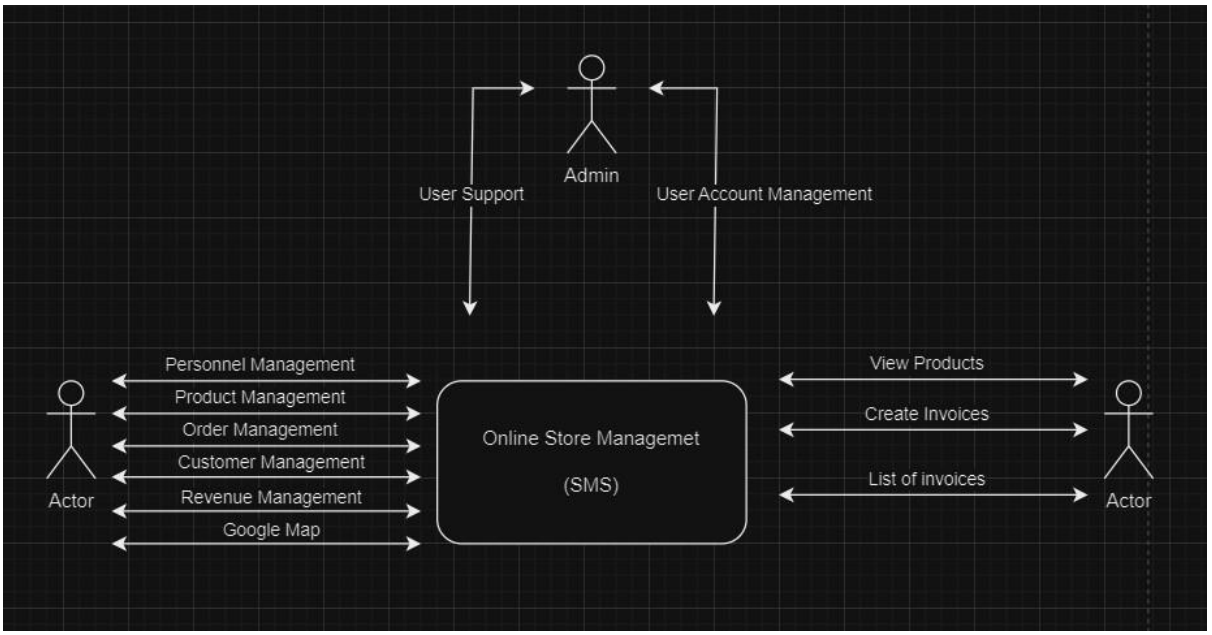


Figure 1: System Context Diagram

4.2. System Context Description

4.2.1 Admin:

- Register an account by email.
- Verify with captcha code.
- Log in to the system with the individual's account after a successful registration.
- Change your personal information if you wish.
- Change password.
- Manage staff accounts.
- Manage products.
- View product information.
- Order management.

- Customer management.
- Revenue management.
- View the map.
- Chain store management.
- Use calculator to calculate.

4.2.2 Staff:

- Log in to the system using the provided admin account.
- See product list.
- Create invoices for customers.
- View the map.
- Use calculator to calculate.
- Change account information.
- Change Password.

4.3. Constraints

4.3.1. Technical constraints

Language: Java

System: Android-based Application.

Develop tools: Netbeans

Database Management System: file.txt

4.3.2. Environments constraint

- App environment: Android.

4.3.3. Other Constraints

- Resource: 5 people.
- Budget: Limited.
- Time: The project must be completed within 2,3 months.
- These features are not available in the first version of products.

5. Tasks and Deliverables

5.1. Task and scope

- Gathering requirements, the professional user.
- Learning the technologies need to solve the problem.
- Planning project implementation.
- Building information from markets.
- Collect information from AI.
- Testing.
- Releases.

5.2. Deliverables

- Proposal Document.
- Project Plan Document.
- Product Backlog and User Story Document.
- Sprint Backlog Document.
- User Interface Document.
- Architecture Design Document.
- Database Design Document.
- Test Case and Test Report Document.
- Test Plan Document.
- Meeting Document.
- Source code.

6. Project Management

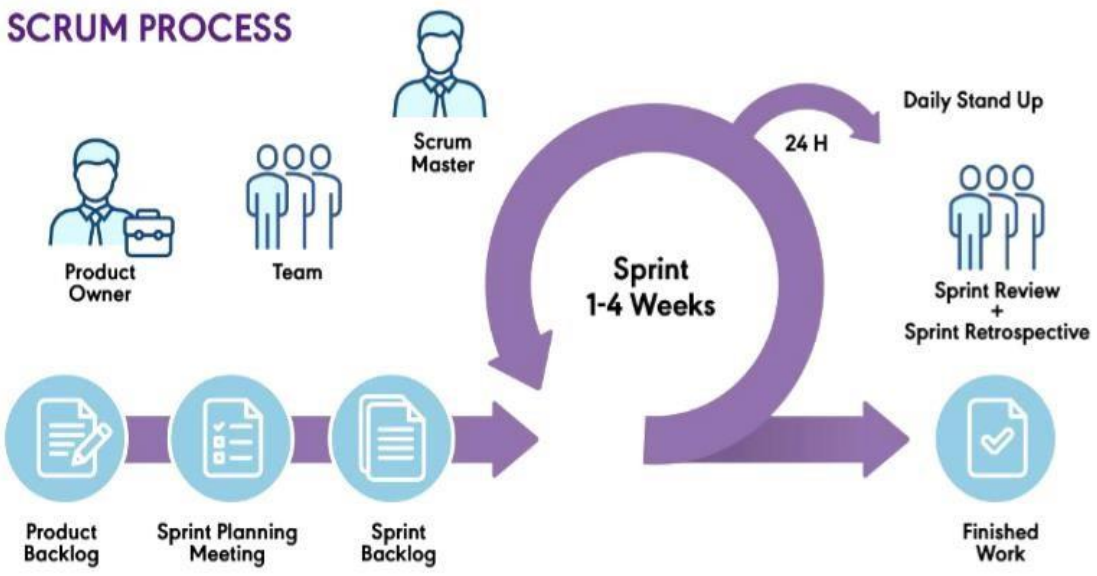
6.1 Cost/Budget for Project

Category	Detailed	Description
Start date	March 15 , 2024	The start date of the project.
End date	May 25, 2024	The end date of the project.

Duration (1)	71	Total days of project.
Working time (2)	5 hours/day	In one day and for one member.
Total effort (3) = (1) * (2) * 5	1775 hrs.	For 5 team members and the entire project.
Labor cost (5) = (3) * 2	2662 $	For 5 team members and the entire project. ($1.5/ member)

6.2. Tentative Schedule

6.2.1. Scrum process



6.2.3. Master Plan

NO	Task Name	Duration (Day(s))	Start	Finish	Effort work (hrs.)
1	Initial	6	15/3/2024	20/3/2024	96

1.1	Create Proposal Document	2	23/3/2024	24/3/2024	32
1.2	Project’s Kick-off Meeting	1	24/3/2024	24/3/2024	16
1.3	Discuss about project idea	2	25/3/2024	26/3/2024	32
1.4	Update Proposal Document	1	27/3/2024	28/3/2024	16
2	Create Document	14	1/5/2024	24/5/2024	224
2.1	Create Project Plan	5	28/5/2024	4/5/2024	80
2.2	Create User Stories	4	5/5/2024	8/5/2024	64
2.3	Create Product Backlog	5	9/3/2024	14/3/2024	80
3	Development	66	15/3/2024	18/5/2024	1056
3.1	Sprint 1	30	15/3/2024	13/4/2024	480
3.2	Sprint 2	18	14/4/2024	1/5/2024	288
3.2	Sprint 3	18	2/5/2024	19/5/2024	288
4	Project Meeting	1	19/5/2024	19/5/2024	16

	Final Release	1	20/5/2024	24/5/2024	16
5	Duration	88	21/3/2024	25/5/2024	1408

7 . Project Constraints

Constraints	Constraints Description	Guidelines for Acceptance
Economic	Project completion cost	Elements for consideration are design costs, production costs, maintenance costs, operating costs, and sales price
Environmental	- Internet Connection: Wifi,3G, 4G. - Operation System: Android 8.0 and up	Impact of the design on the environment as well as impact of the environment (e.g. temperature range, humidity, vibration, electromagnetic interference immunity, and shock) on the design should be considered. Design for recycling and design to use recycled materials should also be considered

Ethical	- Which application is created in a way based on the growing needs of many people to bring to market, secure user information and can easily interact with the system. Support reviewing store prices	Ethical considerations can be broad. Areas that are typically addressed include intellectual property, reverse-engineering, privacy, security, and the conflict between cost and safety
Public health, safety, and welfare	In the context of the epidemic, shippers should wear masks when buying and delivering goods	Ensuring food hygiene on items

Social and Global	This product helps owners manage stores and helps employees interact as well as support customers to buy goods easily.	Addresses aspects such as benefits, risks, the man- machine interface, the acceptance of products by the intended user or by society at large, and global and socially responsible engineering.

Cultural	Products will be more accessible to city people and will have more difficulty to reach rural areas because they have traditionally gone to the market and used less technology. The product will also have difficulty promoting and finding investors	Which cultural characteristics could influence the approach? How do the design from different cultures differ?

Sustainability	- When we create a certain product, we have to do it so that it can be used as quickly and as long as possible because this application meets an urgent, necessary need for people. The application can help users whenever they need it and must ensure reliability and safety for users. - In order to operate and use it most effectively, it is necessary to understand it, when the system fails, it must quickly find out the error as quickly as possible so as not to affect users. - Fix errors as quickly as possible when the system crashes. - Must receive the maximum trust of users for the application to operate sustainably and effectively in the long run. -The chains associated with the application need to be safe for the people who need it and must ensure the life of the application so that everyone can use it for a long time.	Refers to the sustainability of resources, including material, energy, supplies, manufacturing techniques, personnel, operation, and the need for additional infrastructure, as well as the sustainability of the design including reliability, lifetime, durability, reusability and maintainability.

	- Investors always update the product and keep the credibility to create trust for users	

8. Conclusion

- We will build an application that can provide services to support users in managing online stores quickly and effectively.

- This application will be a useful system because it will bring necessary service to everyone. It will support anytime, anywhere when users need it. The application will help save time and effort. In case you do not have time, the application will support you in a reasonable way..

9. References

No.	References	Document Information
1	Scrum Model	https://en.wikipedia.org/wiki/Scrum_(software_development)
		https://www.atlassian.com/agile/scrum
		https://www.digite.com/agile/scrum-methodology/
		https://www.techtarget.com/searchsoftwarequality/definition/Scrum
		https://learn.microsoft.com/en-us/azure/devops/boards/sprints/best-practices-scrum?view=azure-devops

		https://www.scrum.org/resources/scrum-guide
2	**Technical**	https://reactnative.dev/docs/getting-started
		https://www.w3schools.com/react/react_lifecycle.asp
		https://www.mongodb.com/docs/
3	**Software Engineeng Standards**	https://www.nws.noaa.gov/oh/hrl/developers_docs/General_Software_Standards.pdf
		https://standards.ieee.org/standard/12208-2017.html
		https://sw-eng.larc.nasa.gov/

10. <u>Attachment</u>: DESCRIPTION OF PRODUCT REQUIREMENTS FORM