

VIETNAM NATIONAL UNIVERSITY OF HOCHIMINH CITY
THE INTERNATIONAL UNIVERSITY
SCHOOL OF COMPUTER SCIENCE AND ENGINEERING



SOFTWARE ENGINEERING
IT076IU

PROPOSAL

Topic: Web portal for motor servicing at home

By Group 03 – Member List

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I. PROJECT INFORMATION

1. Title: Web portal for motor servicing at home – ID: 13

2. Background

In a world characterized by time constraints and demanding schedules, accessing reliable and convenient motor services often poses a significant obstacle. Our project seeks to alleviate these burdens by bringing professional automotive expertise directly to the doorstep of our clientele.

The project proposes the development of a Database Management System (DBMS) solution tailored for home-based motor servicing. The system will manage and streamline the process of booking, tracking, and managing motor servicing appointments, including but not limited to maintenance, repairs, and diagnostics.

3. Problem Statement

Cognizant of modern homeowners' time constraints and the inconvenience associated with traditional automotive maintenance practices, there exists a notable gap in accessible, trustworthy, and efficient motor services. This challenge is compounded by the complexities of scheduling and the imperative for assurance regarding service provider competence. Consequently, a pressing need arises for a solution that streamlines the delivery of reliable automotive care directly to clients' homes, addressing these key pain points efficiently and effectively.

4. Scope and Objectives

a. Scope:

Within the scope of our project, 9 members will together deploy the main components and the estimated budget is about 500,000 VND to 1 million VND. Below is a list outlining the project scope for such a portal:

- User Authentication and Profiles: Register and login and manage customer profiles (name, address, email, preferred vehicles...).
- Service Booking: Reservation system and calendar integration to schedule appointments. Types of service needed (e.g. oil change, tire rotation, etc.).
- Payment Integration: Support for multiple payment methods (credit/debit cards, digital wallets, etc.) and invoicing and receipt generation for transactions.
- Continuous Improvement: Regular updates and feature enhancements based on user feedback and market trends

b. Objectives:

- Convenience: The primary objective is to provide customers with the convenience of scheduling motor servicing appointments without the need to visit a physical service center.
- Accessibility: Ensure the web portal is accessible to a wide range of users, including those with different devices and internet connections.

- **Transparency:** Provide transparent pricing and detailed descriptions of the services offered, including what each service entails and any additional charges that may apply.
- **Customer Satisfaction:** Prioritize customer satisfaction by offering personalized service options, and addressing customer inquiries.
- **Efficiency:** Streamline the booking and service delivery process to minimize waiting times and maximize efficiency.

5. Analyze the requirements of issue

a. Company must be able to:

Receive information about the user, including personal information, details of the user's vehicle, address of user's residence, and others; make online contact with the user; monitor details of the service appointments.

b. User must be able to:

Search and select service providers, including mechanics and specialists, with profiles detailing their skills, experience, and availability; Make online communication with the service provider; Select one type of service; Monitor details of service appointments, including arrival time, information of service provider, and costs. Users pay the costs by online or offline payments for booking services.

6. Methodology

a. **IDE:** Visual Studio Code and IntelliJ IDEA.

b. **Language programming:** HTML, CSS, JavaScript.

c. **Framework:** PHP, CSS.

d. **Frontend:** HTML, CSS.

e. **Backend:** JavaScript.

f. **Tool:** VSC, IntelliJ IDEA, GitHub, Figma...

IDEs: Visual Studio Code, IntelliJ IDEA

Collaboration Tools: Microsoft Team, Discord

Code Repositories and Hosting Platforms, manage source code: GitHub

g. **Library:** Express, Axios.

II. PROJECT TIMELINE

No	Timeline	Process	Task	Responsibility	Note
1	22/02 - 03/03	Requirement & Analyze	Requirement Analysis	all of members	
2	03/03 - 06/03		Requirement Specification	all of members	
3	07/03 - 14/03		Writing the proposal	Trường Huy, Minh Khôi Phuong Thanh, Gia Huy Văn Đô, Quốc Thịnh	Partner: Thủy Tiên Bách Tùng Huy Hoàng

4	15/03 - 17/03	Design	Analyze design	Bách Tùng Thủy Tiên	
5	18/03 - 20/03		Design Mockups Creation	Bách Tùng	Partner: Thủy Tiên
6	21/03 - 25/03		Architectural Design	Phường Thanh	
7	26/03 - 28/03		Object-oriented Design	Trường Huy	
8	25/03 - 31/03		Database Design	Văn Đô	
9	25/03 - 14/04		Website interface design	Thủy Tiên Bách Tùng Huy Hoàng	
10	01/04 - 14/04		Writing online progress report	all of members	
11	15/04 - 27/04		Midterm exam	all of members	
12	28/04 - 18/05	Implementation	Functions Coding	Trường Huy Minh Khôi Gia Huy	
13	15/05 - 20/05	Testing	Content Integration	Trường Huy	
14	21/05 - 23/06		Test cases	Phường Thanh	Partner: Quốc Thịnh
15	24/05 - 26/05		Test data	Huy Hoàng	
16	27/05 - 29/05		Integration Testing	Thủy Tiên, Quốc Thịnh	
17	30/05 - 01/06		System Testing	Gia Huy	
18	02/06 - 05/06		Risk Monitoring and Planning	Phường Thanh Quốc Thịnh	
19	06/06 - 10/06	Deploying		all of members	
20	25/05 - 04/06		Writing Final Report	all of members	
21	05/06 - 12/06		Prepare file presentation	all of members	
22	13/06 - 20/6		Review + demo	all of members	
23	11/06 - 30/06	Management		all of members	