Postmortem Reflection

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***Abstract* — Abstract — This project, titled** CarSaleAftab**, is a web-based e-commerce application designed for buying and selling cars online. The main goal of the project was to simulate a real-world car dealership website where users can browse vehicles, view detailed car information, and place purchase orders through a streamlined checkout process. The final result is a functional, database-driven website that demonstrates core e-commerce features such as product listings, order handling, and user interaction through a clean and intuitive interface.**

I. Introduction

This project involved creating a website that allows users to shop for cars online, similar to how people browse products on popular shopping websites. In simple terms, the website acts like a digital car showroom where customers can look at available vehicles, check prices and specifications, and proceed with placing an order.

The purpose of this project was to apply classroom concepts related to web development, databases, and user experience design in a practical setting. By building an e-commerce platform focused on car sales, I aimed to better understand how front-end interfaces connect with back-end logic to create a complete, working system.

This project is important because e-commerce platforms are widely used in today's digital economy, and understanding how they are built is a valuable skill for software developers. Students, beginner developers, and small businesses looking to understand online sales systems could benefit from the ideas and structure demonstrated in this project.

A. Team Accomplishments

Although this was primarily an individual project, I treated it as a complete development effort and am proud of successfully delivering a functional end-to-end e-commerce website.

1. Successfully designed and implemented a car listing system that displays vehicle details such as make, model, year, and price.
2. Developed a working purchase flow where users can select a car, confirm details, and place an order.
3. Integrated front-end design with back-end logic to ensure smooth navigation and data handling across multiple pages.

II. Challenges and Resolutions

Despite overall success, several challenges arose during development that required troubleshooting and adjustment

A. **.** *Managing dynamic data display Displaying car information dynamically was challenging because it required correctly passing and retrieving data between pages. I resolved this by carefully reviewing variable scope and ensuring proper data handling through PHP.*

B. Debugging form submission errors Some form submissions initially failed or produced unexpected results. This was challenging due to limited error feedback. I addressed this by adding basic validation checks and testing edge cases to ensure reliable behavior.

Time management and feature prioritization Balancing feature ideas with time constraints was difficult. I resolved this by focusing on core e-commerce functionality first and postponing optional enhancements, which helped ensure project completion**.**

III. If I had the opportunity to start this project again, I would focus more on planning the database structure and feature list in greater detail before coding. This would reduce rework and allow for smoother expansion, such as adding user accounts, search filters, or payment simulation.

IV. Conclusion

The CarSaleAftab project was a valuable learning experience that involved designing and building a complete car sales e-commerce website. The goal was to create a functional and user-friendly platform for browsing and purchasing vehicles online. By the end of the project, I successfully implemented the core features needed to simulate an online car

dealership Overall, this project strengthened my technical skills, improved my confidence in full-stack development, and provided practical insight into building real-world web applications.