

INDUSTRIAL INTERNSHIP FINAL REPORT

Project Title

E-Commerce Website for Automotive Parts

Prepared By

Name: Harshita Singh

Domain: Full-Stack Development

Organization: Upskill Campus in collaboration with UniConverge Technologies Pvt. Ltd. (UCT)

Executive Summary

This report outlines the learning journey and work completed during the industrial internship undertaken through Upskill Campus in collaboration with UniConverge Technologies Pvt. Ltd. (UCT). The internship revolved around building a practical and industry-relevant project titled **“E-Commerce Website for Automotive Parts.”**

Throughout the internship, the project evolved step by step—from understanding requirements and planning the system to developing the frontend and backend, integrating the database, and improving core features. This hands-on experience offered real exposure to professional development practices, enhanced problem-solving abilities, and helped strengthen practical full-stack development skills.

1. Preface

Industrial internships play a vital role in shaping a student’s professional career by providing hands-on exposure to real-world problems. This internship offered an opportunity to work on a practical full-stack development project under proper guidance and a structured learning framework.

The project involved designing and developing an automotive e-commerce platform that demonstrates real business logic and user interaction. The internship program was well planned with weekly milestones, continuous learning, and technical evaluations. Overall, the experience was enriching and career-oriented.

2. Introduction

2.1 About UniConverge Technologies Pvt. Ltd. (UCT)

UniConverge Technologies Pvt. Ltd. is a technology-driven organization working in the digital transformation domain. It delivers industrial solutions using modern technologies such as Internet of Things (IoT), Cloud Computing, Machine Learning, Cyber Security, and Full-Stack Development. UCT focuses on scalable, sustainable, and ROI-driven solutions.

2.2 About Upskill Campus

Upskill Campus is a career development platform that aims to enhance employability through skill-based learning. In collaboration with UCT, it provides internships, industry projects, and mentoring support to help students gain practical exposure and professional readiness.

3. Objectives of the Internship

The main objectives of this internship were:

- To gain real-world industry exposure
 - To apply academic knowledge to practical projects
 - To understand full-stack development workflows
 - To improve problem-solving and debugging skills
 - To develop professional and technical confidence
-

4. Problem Statement

The problem statement focused on developing an **E-Commerce Website for Automotive Parts** that allows users to browse, search, and purchase vehicle-related components online. The system needed to support user authentication, product management, cart functionality, and order handling in an efficient and user-friendly manner.

5. Existing and Proposed Solution

Existing Solutions

Existing automotive e-commerce platforms often suffer from complex interfaces, limited filtering options, and poor vehicle-part compatibility logic. These issues can affect user experience and usability.

Proposed Solution

The proposed solution aims to provide:

- A clean and simple user interface
 - Organized product categorization
 - Efficient cart and order management
 - Scalable full-stack architecture suitable for future enhancements
-

6. Project Design and Architecture

Technology Stack Used

- **Frontend:** HTML, CSS, JavaScript, React (planned)

- **Backend:** Python (Django) / Node.js
- **Database:** MySQL
- **Development Tools:** GitHub, VS Code

Architecture Overview

The application follows a client-server architecture. The frontend communicates with the backend using REST APIs, while the backend handles business logic and database operations.

7. Weekly Progress Report

Week 1: Requirement Analysis and Planning

The first week focused on understanding the internship structure and selecting the project. Research was carried out on automotive e-commerce platforms, required features, and suitable technologies. The project scope and objectives were clearly defined.

Week 2: System Design and Research

In the second week, the system architecture, data flow, and core modules were designed. Database schema planning and security considerations were studied. This phase laid a strong foundation for development.

Week 3: Development Phase

The third week involved the start of actual development. Basic frontend pages were created, backend APIs were developed, and database connectivity was established. Dynamic product data was successfully displayed.

Week 4: Feature Enhancement

During the fourth week, advanced features such as add-to-cart functionality and authentication logic were implemented. UI responsiveness and database structure were also improved.

8. Performance and Testing

Basic functional testing was performed to ensure smooth data flow between frontend, backend, and database. API responses, cart operations, and UI behavior were tested and optimized.

9. Learnings

This internship helped in gaining strong practical knowledge of full-stack development. It improved understanding of REST APIs, database integration, debugging techniques, and project workflow management. The experience will be valuable for future software development roles.

10. Future Scope

- Integration of payment gateway
 - Advanced vehicle-part compatibility logic
 - Order tracking and notification system
 - Performance optimization and security enhancement
 - Cloud deployment of the application
-

11. Conclusion

The industrial internship was a highly valuable learning experience. Working on a real-world project enhanced technical skills, confidence, and professional readiness. This internship has laid a strong foundation for future growth in the field of software and full-stack development.

End of Report