Project Proposal

Prepared by:
Syed Raahim Ali CT-191
Faizan Khan CT-195

1. Introduction

The Airplane Management System is designed to simulate the management and monitoring of airplanes, including scheduling, maintenance status, and seating configuration. The project will allow administrators to check airplane availability, update flight assignments, and record maintenance details. This system aims to streamline airplane operations and provide an organized, user-friendly interface for efficient management.

2. Objectives

• To design and implement a system in C that manages airplanes and their operational details.
• To maintain airplane records such as model, capacity, flight status, and maintenance schedule.
• To provide a clear, menu-driven interface for administrators.
• To allow real-time visualization and updates of airplane information.
• To extend the system for storing airplane and flight data persistently using file handling.

3. Scope of the Project

The system will initially manage a limited number of airplanes with details about each plane’s capacity, class configuration, and status. Later, it can be expanded to include complete flight schedules, crew assignments, ticketing systems, and data persistence through files. The project will focus on building a structured, efficient airplane management simulation using the C programming language.

4. Methodology

The project will be developed using the C language. It will utilize arrays and structures to store and manage airplane data. A menu-driven interface will be

implemented for user interaction. The system will include error handling for invalid inputs and duplicate records. File handling will be integrated in later phases to enable saving and loading of airplane information for data persistence.

5. Expected Outcomes

• A functional airplane management system capable of maintaining airplane and flight-related data.
• Real-time visualization of airplane status and operational information.
• A foundation for future extensions such as flight scheduling, passenger management, and ticket pricing.
• Hands-on application of C programming concepts including arrays, functions, and file handling.

6. Conclusion

This project will serve as a valuable experience in developing a real-world management system using the C programming language. By simulating an airplane management system, it demonstrates the practical use of programming logic, data structures, and interactive interfaces in solving organizational and operational problems.