**Flight Management System**



**Project Proposal**

**SCD**

**Section: BSE - 5B**

21K-3838 Arqam Habib

21K-3821 Haroon Mirza

21K-3874 Saqib Sheikh

**I. Introduction and Brief Description**

The Flight Management Database System project aims to develop a comprehensive software system for managing various aspects of flight operations within an airline company. This system will allow the admin to manage flights and provide detailed report about a particular flight. It will also provide an interface for booking tickets along with secure payment method for passengers.

**II. System Functions**

The Flight Management Database System will perform the following key functions:

**1. Flight Scheduling and Management**

* Create, modify, and manage flight schedules.
* Allocate aircraft and crews to flights.

**2. Passenger Booking and Ticketing**

* Allow passengers to search flights.
* Allow passengers to book flights.
* Generate e-tickets and boarding passes.
* Manage seat assignments and reservations.

**3. Billing and Payment Processing**

* Generate invoices and receipts for passengers.
* Handle various payment methods, including credit cards and cash.
* Manage refunds and cancellations.

**4. Reporting and Analytics**

* Provide detailed reports on flights.

**5. Security and Authentication**

* Ensure secure access to the system with user authentication.

**III. Front-End and Back-End Technologies**

**Front-End Technologies:**

The front-end of the Flight Management Database System will be developed using Java technologies, including:

1. **JavaFX**: JavaFX will be used to create a modern and user-friendly GUI for the system, allowing for a responsive and intuitive user experience.

**Back-End Technologies:**

The back-end of the system will be implemented using a combination of Java and database technologies:

1. **Java**: The core application logic will be developed in Java to handle the business rules, data processing, and communication with the database.
2. **Database Management System (DBMS)**: The system will use a SQL for Database management.