

**SkyLogix:**

Aerospace Management System

User Manual

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**Welcome to SkyLogix:**

**Aerospace Management System!**

**Introduction**

SkyLogix is a comprehensive and innovative aerospace management system designed to streamline and enhance all aspects of aerospace operations. Whether you are managing a fleet of aircraft, flights, bookings, passengers or coordinating airports, SkyLogix provides the tools and capabilities needed to ensure efficient, safe, and effective aerospace management.

Our platform integrates cutting-edge technology with industry best practices to offer solutions that cater to the unique challenges of the aerospace industry. From real-time data analytics and reporting to seamless communication and collaboration tools, SkyLogix is your all-in-one solution for managing the complexities of aerospace operations.

**Installation and Setup**

Prerequisites:

* Ensure Java is installed on your system.
* Download the SkyLogix application package.

Installation:

* Extract the downloaded package.
* Navigate to the directory containing the extracted files.

Running the Application:

* Open a terminal or command prompt.
* Navigate to the directory where the application is located.
* Run the command: java -jar SkyLogix.jar.

**User Documentation**

**Purpose & Key Features**

SkyLogix Aerospace Management System is designed to revolutionize the way aerospace operations are managed. Its primary purpose is to provide a centralized platform that enables efficient, safe, and streamlined management of all aerospace-related activities. Whether you're an airline, airport, or maintenance provider, SkyLogix offers comprehensive tools to manage flights, bookings, passengers, aircraft, and airports. The system is built to enhance operational efficiency, ensure regulatory compliance, and improve overall decision-making processes through real-time data insights and advanced analytics.

**Menu Overview**

MAIN MENU

1. Flight Management

2. Booking Management

3. Passenger Management

4. Aircraft Management

5. Airport Management

6. Exit

**Flight Management**

===== Flight Management System =====

1. View All Flights

2. Search Flights Menu

3. Add Flight

4. Edit Flight by ID

5. Delete Flight by ID

6. Seating Chart Menu

7. Exit

* The Flight Management module within SkyLogix Aerospace Management System is designed to provide comprehensive tools for managing all aspects of flight operations. This module helps streamline tasks related to viewing, adding, editing, and deleting flight information, ensuring efficient and effective management of your fleet. The system is intuitive and user-friendly, making it easy for operators to handle various flight-related activities.3

**Booking Management**

===== Booking Management System =====

1. View All Bookings

2. Search Bookings Menu

3. Add Booking

4. Cancel Booking

5. Exit

* The Booking Management module within the SkyLogix Aerospace Management System is designed to handle all aspects of flight bookings and reservations. This module provides functionalities for viewing, searching, adding, and canceling bookings, making it a vital tool for managing passenger reservations efficiently. The system ensures that booking operations are streamlined and easily manageable, enhancing the overall passenger experience and operational efficiency.

**Passenger Management:**

===== Passenger Management System =====

1. View All Passengers

2. Search Passengers Menu

3. Add Passenger

4. Edit Passenger by ID

5. Delete Passenger by ID

6. Exit

* The Passenger Management module within the SkyLogix Aerospace Management System is designed to efficiently handle all aspects of passenger information and management. This module provides functionalities for viewing, searching, adding, editing, and deleting passenger details, ensuring that passenger data is accurate and up-to-date. The system is built to enhance passenger management processes, providing a seamless experience for both the operators and the passengers.

**Aircraft Management**

===== Aircraft Management System =====

1. View All Aircraft

2. Search Aircraft Menu

3. Add Aircraft

4. Edit Aircraft by ID

5. Delete Aircraft by ID

6. Exit

* The Aircraft Management module within the SkyLogix Aerospace Management System is designed to streamline and manage all aspects of aircraft information and operations. This module provides functionalities for viewing, searching, adding, editing, and deleting aircraft details, ensuring that all aircraft data is current and accurately maintained. The system is tailored to enhance the management of the aircraft fleet, improving efficiency and operational effectiveness.

**Airport Management**

===== Airport Management System =====

1. View All Airports

2. Search Airports Menu

3. Add Airport

4. Edit Airport by ID

5. Delete Airport by ID

6. Exit

* The Airport Management module within the SkyLogix Aerospace Management System is designed to effectively manage all aspects of airport information and operations. This module provides functionalities for viewing, searching, adding, editing, and deleting airport details, ensuring that airport data is current and accurately maintained. The system is built to enhance the management of airport facilities and operations,

**Development Documentation**

**Class Diagrams**

|  |
| --- |
| **Airport Class** |
| - airport\_ID: Long (PK)  - code: String  - name: String  - city: String  - province String |
| + Airport(long airport\_ID, String code, String name, String city, String province) |

|  |
| --- |
| **Aircraft Class** |
| - aircraft\_ID: Long (PK) - model: String  - airline: String  - capacity: Integer  - rows: Integer  - columns: Integer  - numAisles: Integer |
| + Aircraft(Long aircraft\_ID, String model, String airline, Integer capacity, Integer rows, Integer columns, Integer numAisles) |

|  |
| --- |
| **Passenger Class** |
| - passenger\_ID: Long (PK)  - first\_name: String  - last\_name: String  - email: String |
| + Passenger(Long passenger\_ID, String first\_name, String last\_name, String email) |

|  |
| --- |
| **Flight Class** |
| - flight\_ID: Long (PK)  - aircraft: Aircraft (FK)  - destination: Airport (FK)  - origin: Airport (FK)  - departure\_time: LocalDateTime  - arrival\_time: LocalDateTime  - status: Status (FK) // Do we want this enum, class, string  - flightBookings: Booking[][] (FK) |
| + Flight(Long flight\_ID, Aircraft aircraft, Airport destination, Airport origin, LocalDateTime departure\_time, LocalDateTime arrival\_time, Status status, Booking[][] flightBookings) |

|  |
| --- |
| **Booking Class** |
| - booking\_ID: Long (PK)  - flight\_ID: Long (FK)  - passenger\_ID: Long (FK)  - seatRow: Integer  - seatColumn: Integer |
| + Booking(Long booking\_ID, Long flight\_ID, Long passenger\_ID, Integer seatRow, Integer seatColumn) |

***Javadocs***

*Javadocs for the project were generated using the `javadoc` tool included with the JDK. Run the following command in the root directory of the project:*

*javadoc -d docs -sourcepath src -subpackages JavaSprint*

*This generated Javadocs for all classes in the `FinalJavaSprint` package and put them in a folder named `docs`.*

**Support**

For any assistance or queries regarding SkyLogix: Aerospace Management System, please contact our support team at info@skylogix.com. We provide prompt assistance and resolving any issues you may encounter while using our software.

**Conclusion**

The SkyLogix Aerospace Management System is a comprehensive and robust solution designed to streamline the various facets of aerospace management. With distinct modules for Flight, Booking, Passenger, Aircraft, and Airport management, SkyLogix provides a user-friendly and efficient platform for handling critical operational tasks. Each module is equipped with features that ensure data accuracy, operational efficiency, and ease of use, making it an indispensable tool for aerospace operators.

SkyLogix Aerospace Management System is designed to meet the diverse needs of aerospace operators, providing a comprehensive solution that enhances efficiency and accuracy across all operations. By leveraging the power of technology, SkyLogix empowers users to manage their operations with ease, precision, and confidence. Whether you are managing flights, bookings, passengers, aircraft, or airports, SkyLogix offers the tools you need to ensure smooth and efficient operations, contributing to the overall success of your aerospace management endeavors.