REVISION HISTORY

Date	Version	Description	Author
13/04/24	1.0	Introduction completed	Ilkin Tomuev
13/04/24	1.1	Software Architecture Overview	Rashad Musayev
14/04/24	2.0	Component Interface, Component Design Description and Workflows and Algorithms (3.1.1-3.1.4)	Rashad Musayev Ilkin Tomuev Jeyhun Javadov Teymur Mammadov
14/04/24	2.1	Component Interface, Component Design Description and Workflows and Algorithms (3.2.1-3.2.4)	Rashad Musayev Ilkin Tomuev Jeyhun Javadov Teymur Mammadov
16/04/24	3.0	Component Interface, Component Design Description and Workflows and Algorithms (3.3.1-3.3.4)	Rashad Musayev Ilkin Tomuev Jeyhun Javadov Teymur Mammadov
16/04/24	3.1	COTS Identification	Teymur Mammadov
22/04/24	4.0	Workflows and Algorithms (3.1.3 corrected	Rashad Musayev
22/04/24	4.1	Component Design Description corrected (3.2.2)	Jeyhun Javadov
23/04/24	4.2	Component Design Description corrected (3.3.2)	Ilkin Tomuev
24/04/24	4.3	3.X.1 Component Interfaces	Rashad Musayev Ilkin Tomuev Jeyhun Javadov Teymur Mammadov
24/04/24	4.4	Workflows and Algorithms (3.3.3 corrected	Teymur Mammadov

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1 Introduction

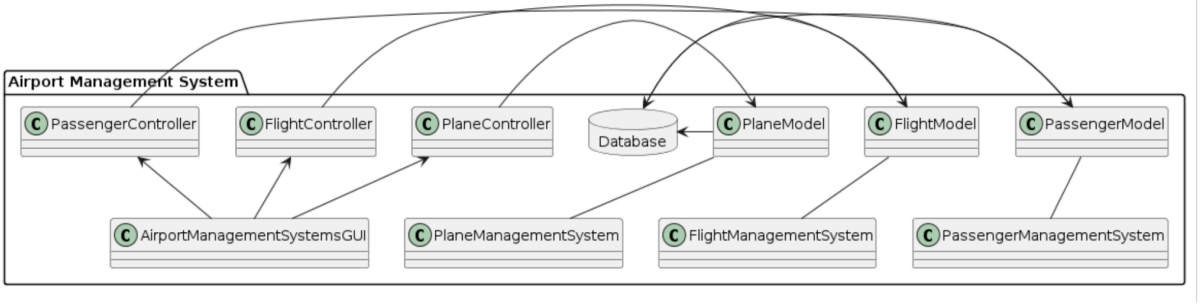
This document describes the design of the AMS software system.

1.1 References

1.1.1 Project References

#	Document Identifier	Document Title
[SRS]	AMS-SRS-1	AMS Software Requirements Specifications

2 Software Architecture overview

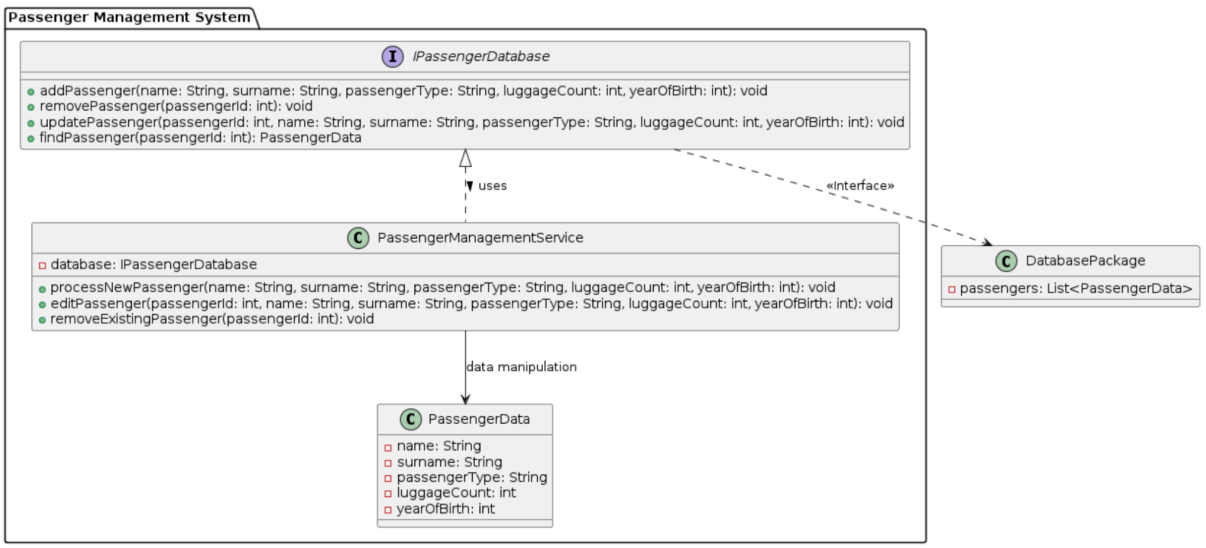


3 Software design description

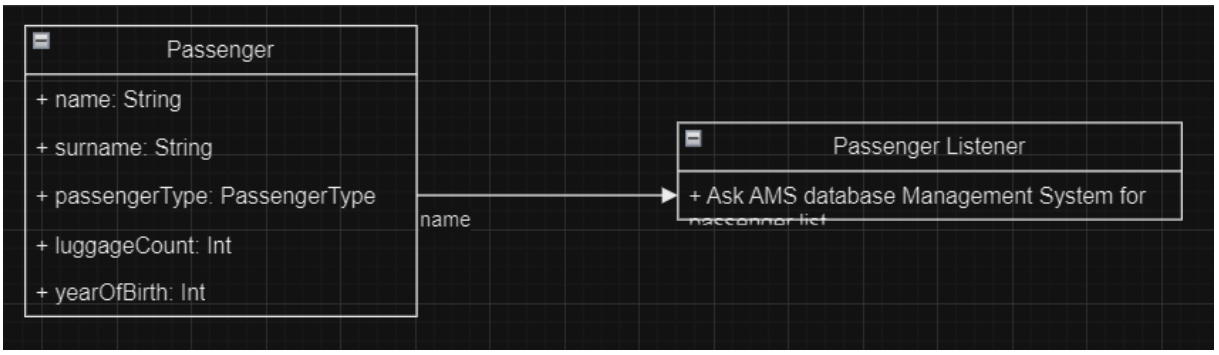
3.1 Passenger Management System

3.1.1 Component interfaces

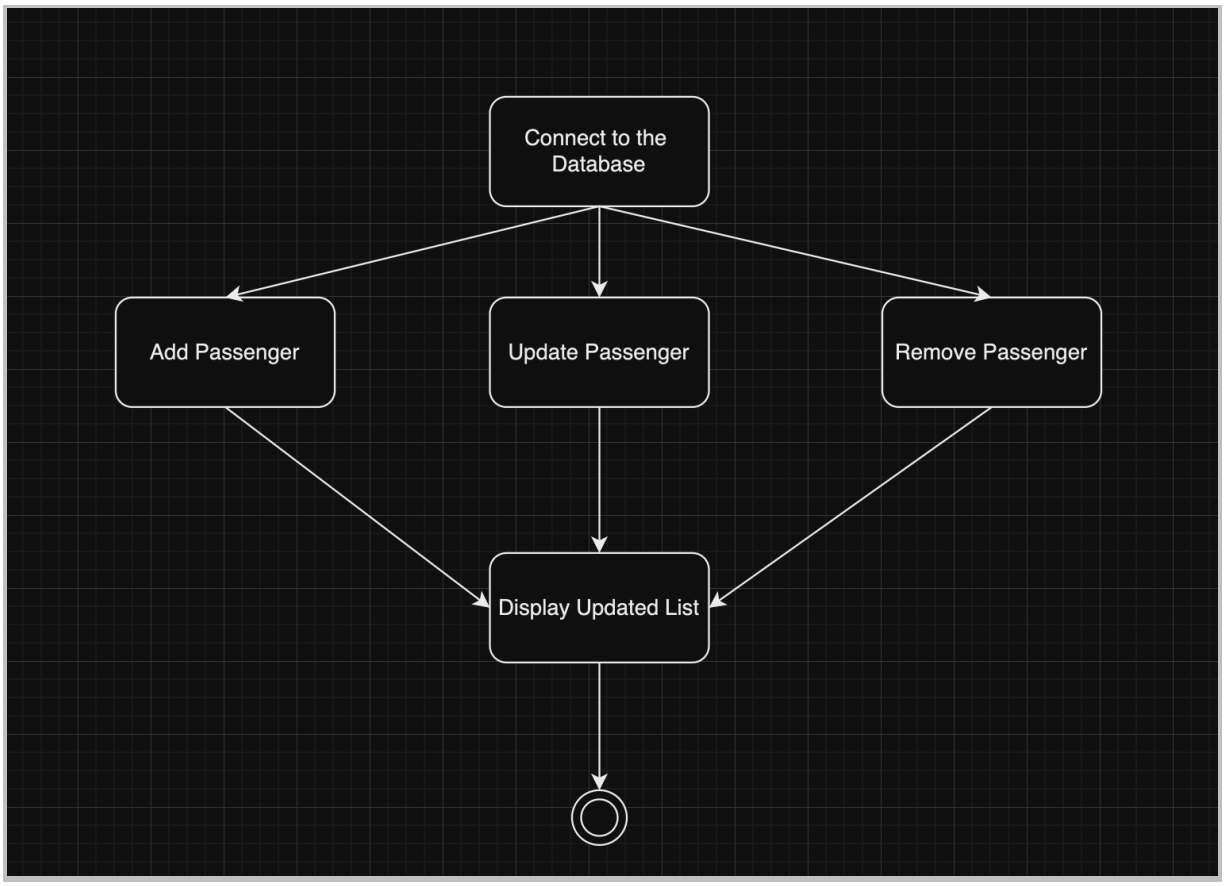
Input data of Passenger Management System are name, surname, passenger type(Business, Economy, Family), luggage count, and year of birth of the passenger. Output is the data that will be sent to the database.



3.1.2 Component design description



3.1.3 Workflows and algorithms



3.1.4 Software requirements mapping

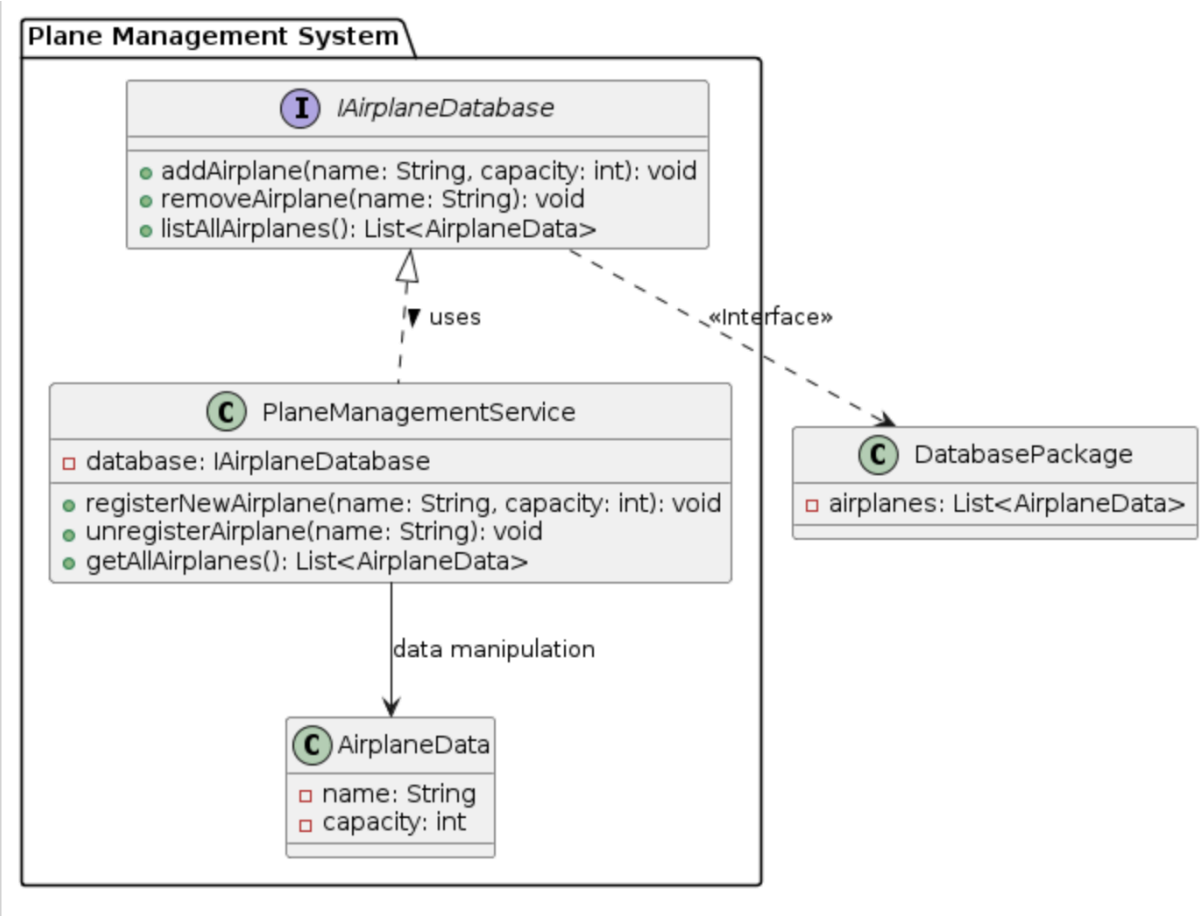
SRS-AMS-001

3.2 Plane Management System

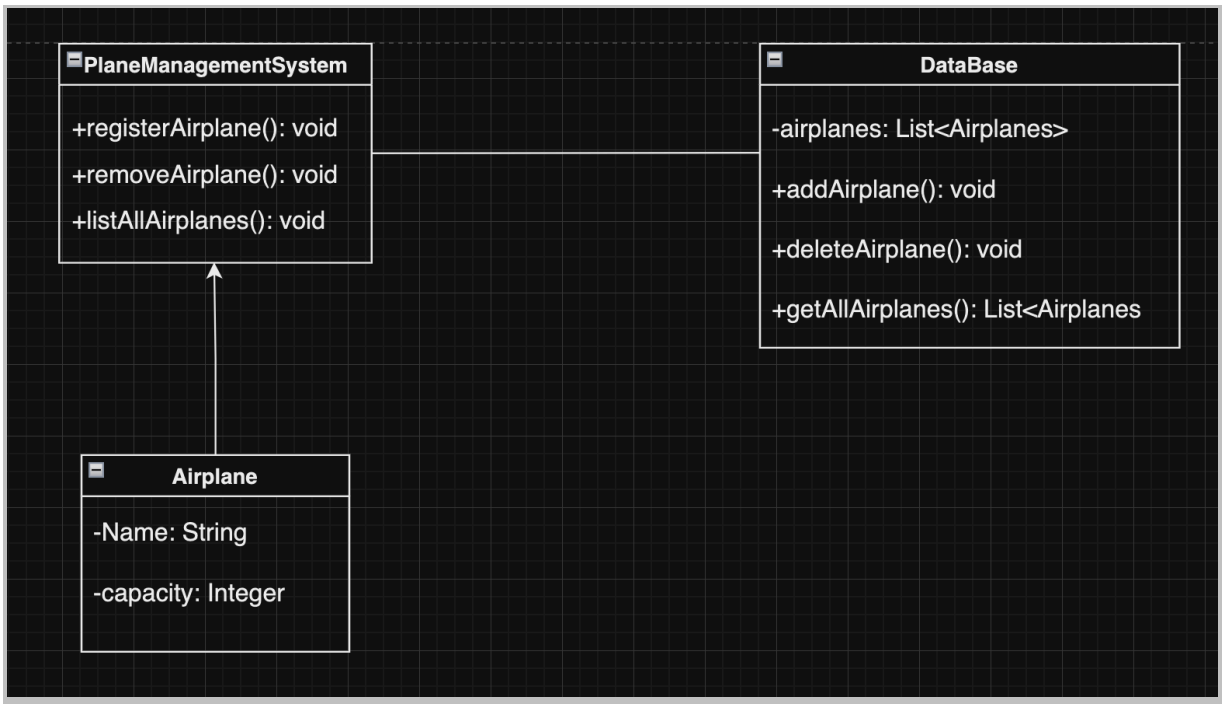
3.2.1 Component interfaces

The inputs for the Plane Management System are airplane name and capacity. The output is the list of all registered airplanes and the list of registered airplanes is sent to the database. The

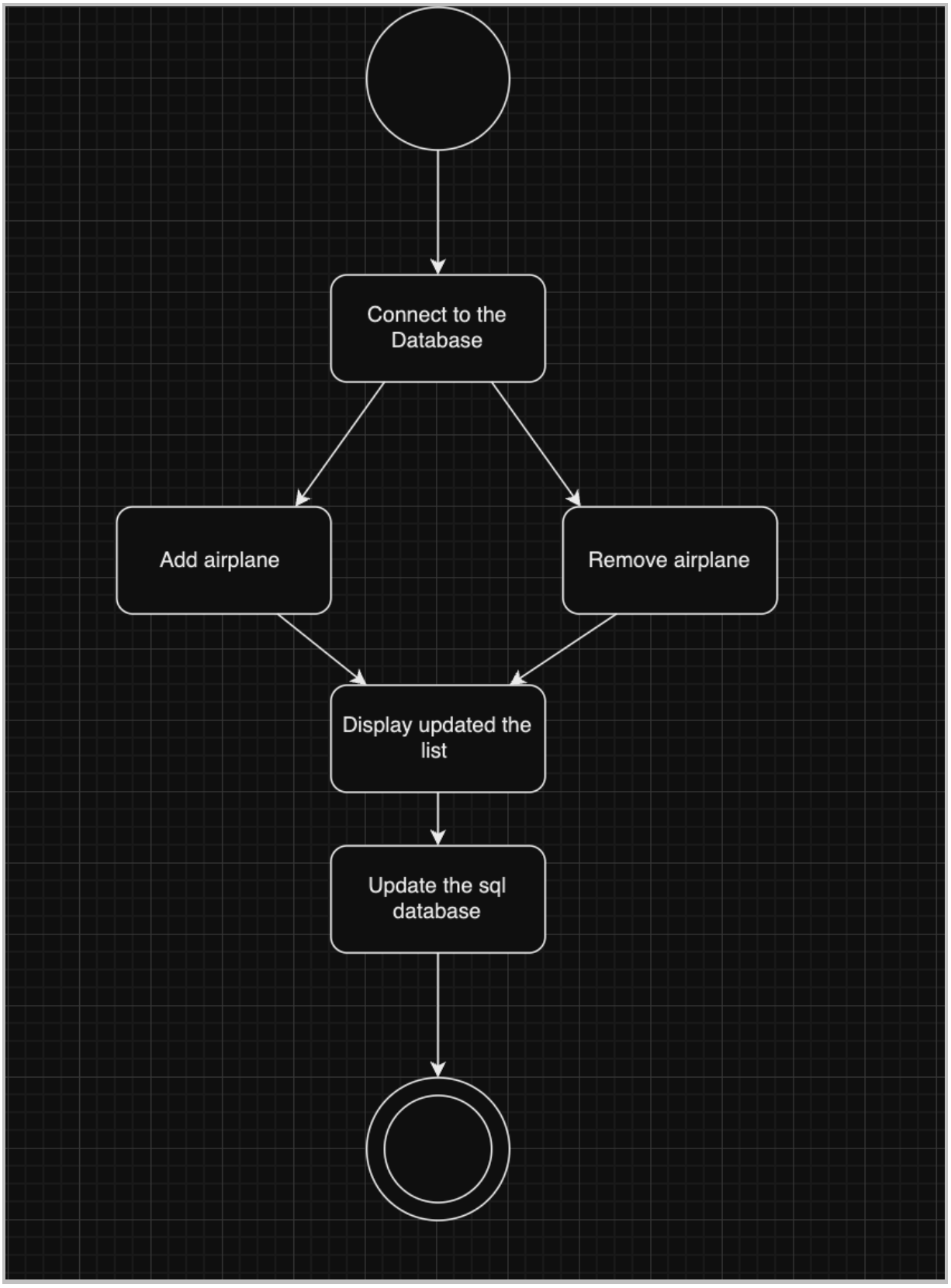
second functionality of the Plane Management System is the ability to remove airplanes using their name. The Second functionality is also interlinked with the database, removed airplanes are also removed from the database.



3.2.2 Component design description



3.2.3 Workflows and algorithms



3.2.4 Software requirements mapping

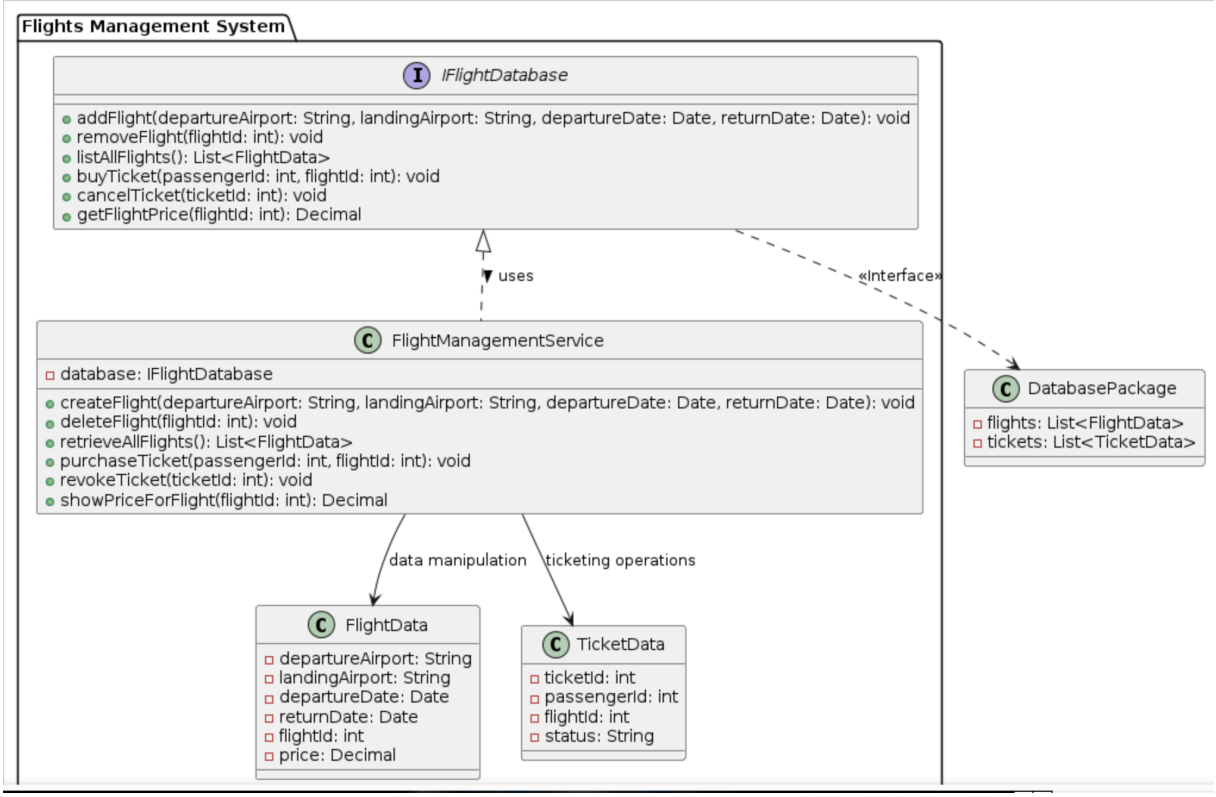
SRS-AMS-002.1

SRS-AMS-002.2

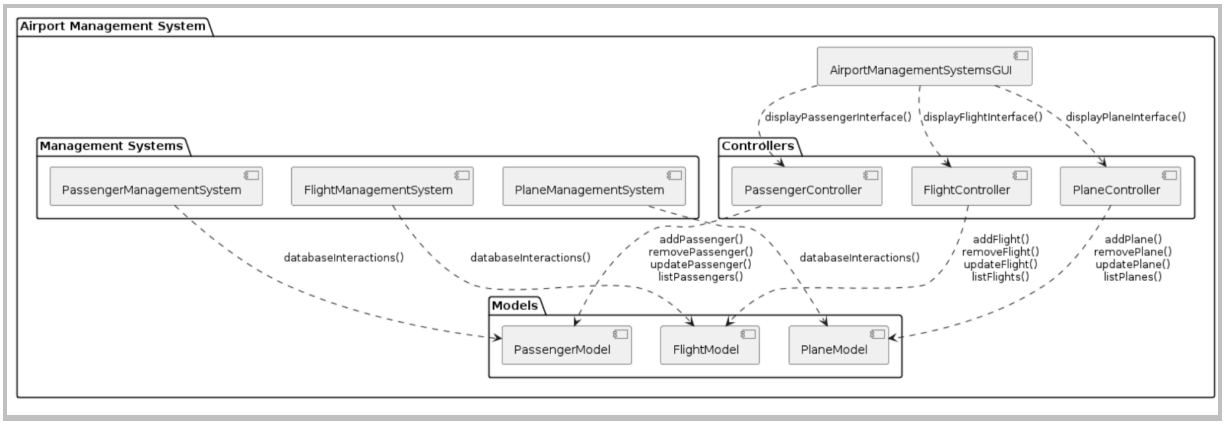
3.3 Flight Management System

3.3.1 Component interfaces

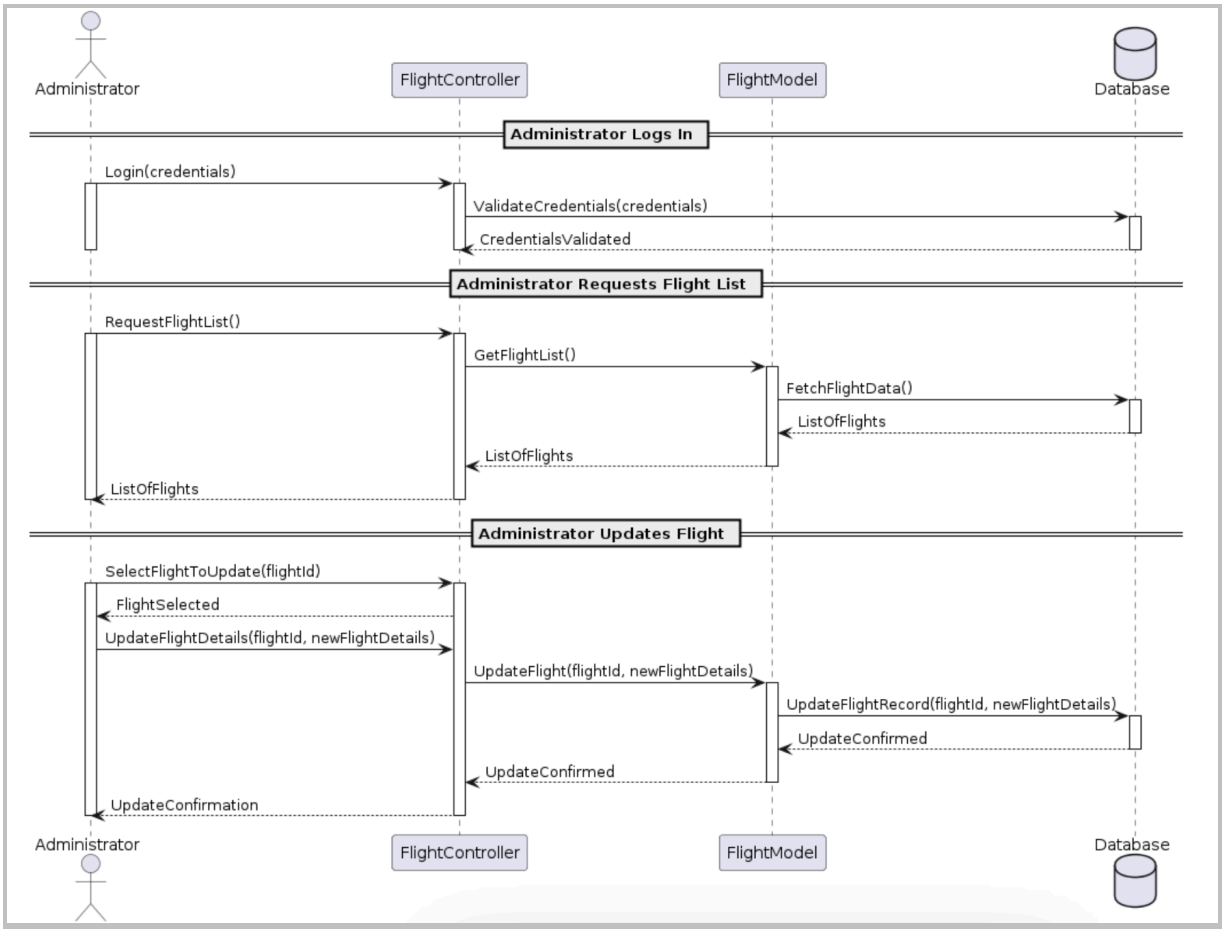
Flights Management System to add flight functionality users must provide following inputs: Departure airport, Landing airport, Departure date, return date. The output of this functionality is the list of all flights and the resulting list is stored in the database. To remove a flight, the user must select the flight to be removed and then press the **Remove Flight** button. In the Manage Ticket functionality users must input a passenger ID, select a flight from the list then click the ***Buy Ticket*** button. The output of this functionality is passengers being registered for the flights and changes being registered to the database, and when the flight is selected the price is displayed as well. User can also select a bought flight and cancel it using the **Cancel Ticket** button



3.3.2 Component design description



3.3.3 Workflows and algorithms



3.3.4 Software requirements mapping

SRS-AMS-003.1

SRS-AMS-003.2

SRS-AMS-004.1

SRS-AMS-004.2

SRS-AMS-004.3

4 COTS Identification

COTS (commercial of the shelf) libraries used in AMS are the following:

- WindowBuilder Java plugin for the IDE
- Java Swing toolkit for GUI components