Test Cases

Problem solving application.

Airline

Members:

- Alexis Jaramillo (A00395655)
- David Molte (A00368867)
- Juan Daniel Reina (A00394352)

Requirement 1: Passenger loading system

- Test case 1:

Scenario: plain text file with valid passenger information.

Input: Plain text file with flight passenger information.

Process: Validation of file and loading of passenger data.

Result/Postcondition: Passenger information is successfully uploaded to the system.

Output: Confirmation of successful upload

- Test Case 2:

Scenario: Plain text file with invalid passenger information.

Input: Plain text file with passenger information of the flight containing errors or missing information.

Process: File validation and upload of passenger information.

Result/Postcondition: Upload of passenger information fails due to errors or missing information.

Output: Error message informing of problems encountered in the file

Requirement 2: Boarding lounge arrival check-in.

Test case 1:

Scenario: Passenger arriving at the boarding lounge in a timely manner.

Input: Information of passenger arriving at boarding lounge on time

Process: Registration of passenger's arrival and rewarding for punctuality

Result/Postcondition: Passenger is successfully checked in and allowed to enter the aircraft in the order of arrival.

Output: Confirmation of successful check-in

- Test Case 2:

Scenario: Passenger arriving late at the boarding lounge.

Input: Information of the passenger arriving at the boarding lounge after the scheduled time.

Process: Check-in of passenger arrival

Result/Postcondition: Passenger is checked in correctly but is not allowed to enter the aircraft in the order of arrival.

Output: Message informing the passenger that he/she will not be rewarded for punctuality and will be told the order in which he/she can enter the aircraft.

Requirement 3: Prioritization of first class.

- Test case 1:

Scenario: First class passenger with accrued miles.

Input: Mileage accrued first class passenger information

Process: Validation of the passenger data and prioritization of the aircraft entry.

Result/Postcondition: The first-class passenger with accrued miles is successfully prioritized to enter the aircraft.

Output: Confirmation of successful prioritization.

- Test Case 2:

Scenario: First class passenger without accrued miles

Input: First class passenger information with no miles accrued

Process: Validation of passenger data and prioritization of entry to the aircraft.

Result/Postcondition: The first-class passenger without accrued miles is successfully prioritized to enter the aircraft according to other relevant conditions.

Output: Confirmation of successful prioritization

Requirement 4: Aircraft entry order

- Test case 1:

Scenario: You have a flight with a capacity of 100 passengers.

The order of entry is as follows: first the first-class passengers must be admitted, followed by business class passengers and finally economy class passengers.

There are 30 first class passengers, 40 business class passengers and 30 economy class passengers.

The crew person in charge of the system must enter the passengers.

Inputs:

Type of class: First class

Class type: Business class

Class type: Economy

Process:

The corresponding class type is selected.

The system displays the passengers corresponding to that class type, sorted by aircraft section.

The crew person in charge of the system verifies the order and calls the corresponding passengers to enter the aircraft.

Departures:

List of passengers in order of entry, by aircraft sections.

- Test case 2:

Scenario: There is a flight with a capacity of 50 passengers.

The order of entry is as follows: passengers in the rear section of the aircraft must be admitted first, followed by the middle section and finally the front section.

There are 20 passengers in the rear section, 10 in the middle section and 20 in the front section.

The crew person in charge of the system should enter the passengers.

Inputs:

Aircraft section: Rear

Aircraft Section: Middle

Aircraft section: Front

Process:

The corresponding section of the aircraft is selected.

The system displays the passengers corresponding to that section, sorted by proximity to the aisle or by order of arrival.

The crew person in charge of the system verifies the order and calls the corresponding passengers to enter the aircraft.

Departures:

List of passengers in order of entry, by aircraft section.

Requirement 5: Aircraft departure order

- Test case 1:

Scenario: There is a flight with 150 passengers that is landing in the destination city. The aircraft has been divided into 10 rows, with row 1 being the closest to the departure aisle and row 10 the furthest away. The order of arrival of the passengers has not been considered.

Inputs: List of passengers with their information (first name, last name, row number and seat).

Process: The system should receive the list of passengers with their information.

The flight crew person in charge of the system must establish the departure order of the passengers by rows, being the first to depart those in row 1 and the last to depart those in row 10.

In each row, the order of departure should be according to the proximity to the aisle or the order of arrival as last.

The system should show in which order passengers should depart to the crew person in charge.

Departures: List of passengers ordered to exit the aircraft.

- Test case 2:

Scenario: There is a flight with 200 passengers that is landing in the destination city. The aircraft has been divided into 15 rows, with row 1 being the closest to the departure aisle and row 15 the furthest away. The order of arrival of the passengers has been considered.

Inputs: List of passengers with their information (first name, last name, row number and seat) and the order of arrival of passengers.

Process: The system should receive the list of passengers with their information and the order of arrival.

The flight crew person in charge of the system must establish the order of departure of the passengers by rows, being the first to depart those in row 1 and the last to depart those in row 15.

In each row, the order of departure must be according to the order of arrival of the passengers.

The system should show in which order passengers should depart to the crew person in charge.

Departures: List of passengers ordered to exit the aircraft.