

AirConsole Reservation System

You have been hired as a developer for AirConsole Pty Ltd. Your task is to develop a new automated reservations system. You are to write a new application to assign seats on each flight serviced by the airline.

Specifications

- There is only one route going from Madrid to Barcelona
- There is only one airplane. The airplane has 40 seats. There are 8 rows. There are 5 seats on each row. Denominated seat A-E. The seat number is a combination of the row number and the seat letter.
- There are 2 seat classes. Rows 1 to 5 are business class rows. The remaining number of rows are Economy class.
- All user input must be validated
- The initial task only covers seat reservation. So you don't need to ask the Date of Departure and offer Flight Date/Time selection
- All passenger details are saved in a flight manifest file and loaded next time the application is started
- This will be a single terminal application. So thread safety and concurrent access is not an issue.

Below is an example interaction in the user interface:

```
*****  
**      Welcome to AirConsole  **  
*****
```

```
Task Selection  
R: Reservation  
S: Seat Verification  
X: Exit the System
```

Please enter the task you want to perform: R

```
*****  
**              Seat Class          **  
*****
```

```
Seat Class Selection:  
B: Business Class  
E: Economy Class
```

Please enter the seat class you want to reserve: A
Invalid Entry! Please try again.

Please enter the seat class you want to reserve: B

```
*****  
**      Business Class      **  
*****
```

	A	B	C	D	E
1	X	X	X	X	X
2	X				X
3	X		X	X	X
4	X	X	X	X	X
5	X	X	X	X	X

Please enter the row number: 10
Invalid Entry! Please try again.

Please enter the row number: A
Invalid Entry! Please try again.

Please enter the row number: 1
Please enter the seat letter: X
Invalid Entry! Please try again.

Please enter the seat letter: 1
Invalid Entry! Please try again.

Please enter the seat letter: A
Sorry seat 1A is already taken.

Please enter the row number: 2
Please enter the seat letter: B

Seat 2B is available.

Please enter the passenger's firstname: Jake

Please enter the passenger's lastname: Sta. Teresa

Please enter the passenger's passport number: ABC123456

Seat 2B was successfully booked!

```
*****  
**      Welcome to AirConsole      **  
*****
```

Task Selection
R: Reservation
S: Seat Verification
X: Exit the System

Please enter the task you want to perform: S

```
*****  
**      Seat Verification      **  
*****
```

Please enter the row number: 2
Please enter the seat letter: B

Passenger details
Firstname: Jake
Lastname: Sta. Teresa
Passport Number: ABC123456

Press any key to continue...

```
*****  
**      Welcome to AirConsole  **  
*****
```

Task Selection
R: Reservation
B: Boarding
X: Exit the System

Please enter the task you want to perform: X