



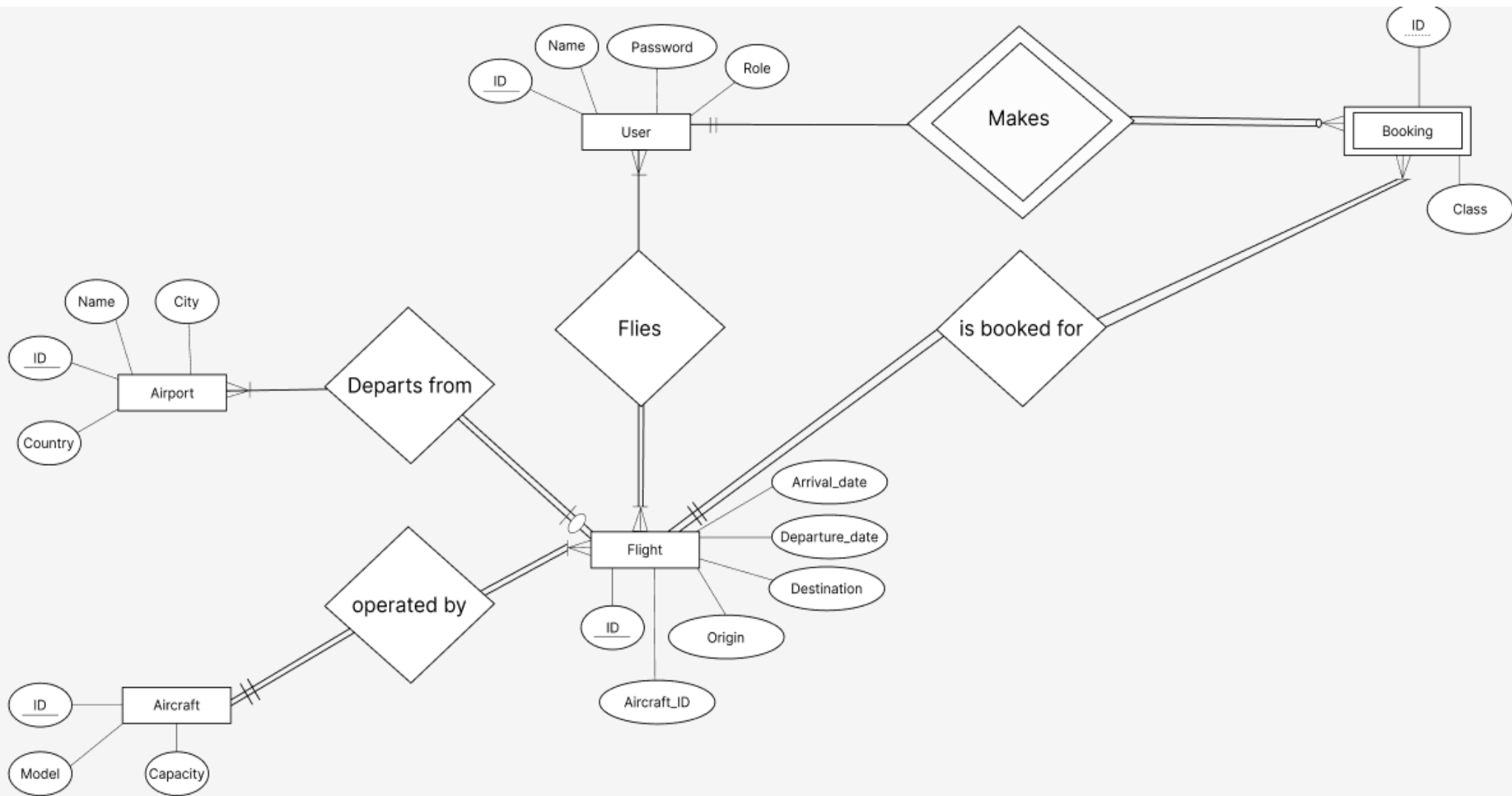
Cairo University
Faculty of Computers and Artificial Intelligent

Database project

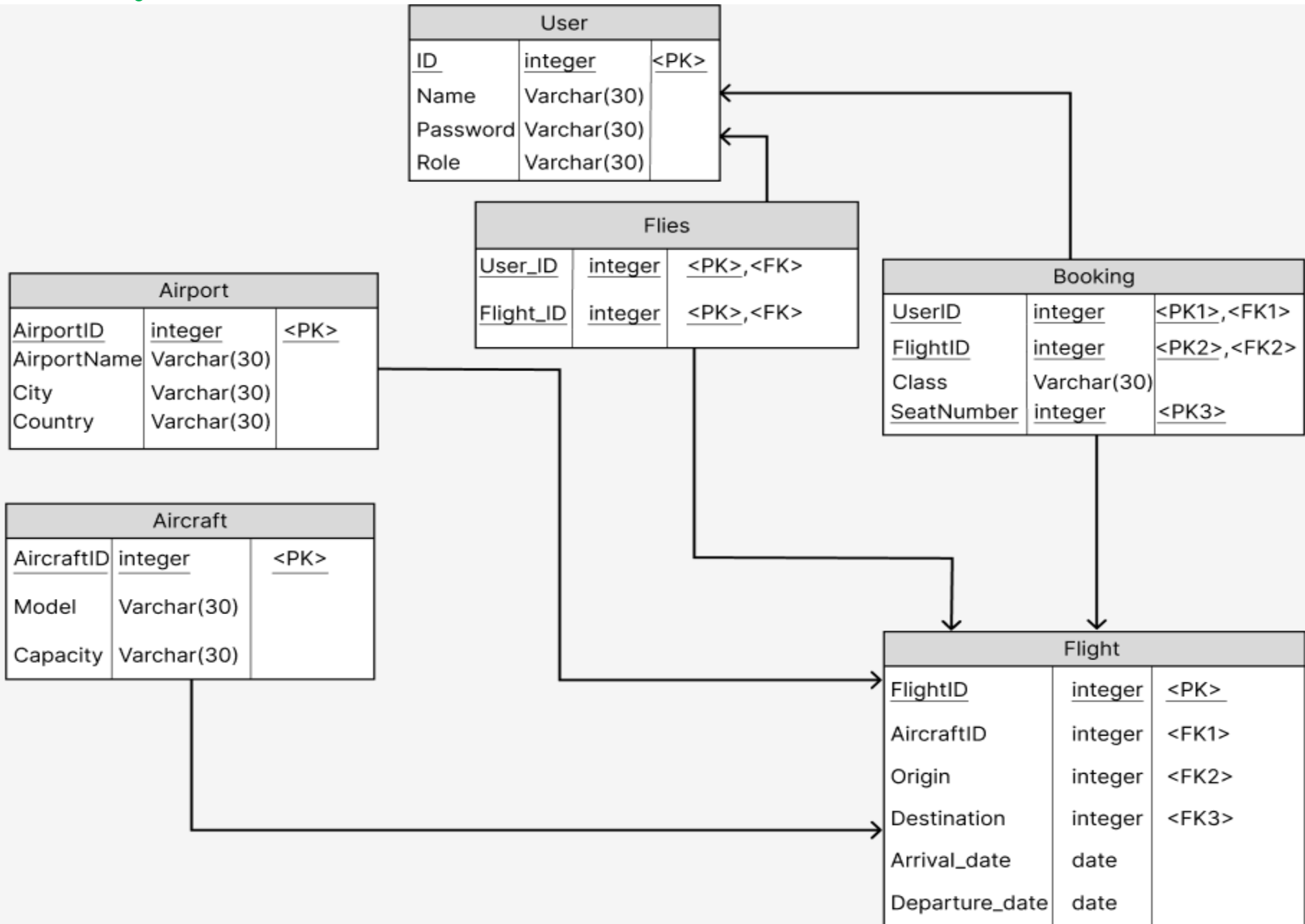
| # | Name | ID | group |
|----|------------------------------|----------|-------|
| 1. | Mohamed Shawky Mohamed Galal | 20216086 | S4 |
| 2. | Mohamed Elyousfy | 20216083 | S4 |
| 3. | Ali Amr Mohamed Moussa | 20216065 | S4 |
| 4. | Ahmed Ashraf El-Marakby | 20216002 | S4 |
| 5. | Sama Ahmed Abosaty | 20216048 | S4 |

TA: Eng. Dina abbas

Conceptual ERD



Physical ERD



SQL code

```
CREATE DATABASE flight
```

```
CREATE TABLE [user] (  
  id INT IDENTITY(1,1) PRIMARY KEY,  
  name VARCHAR(255) NOT NULL,  
  [password] VARCHAR(255) NOT NULL,  
  [role] VARCHAR(50) NOT NULL CHECK ([role] IN ('admin', 'customer'))  
);
```

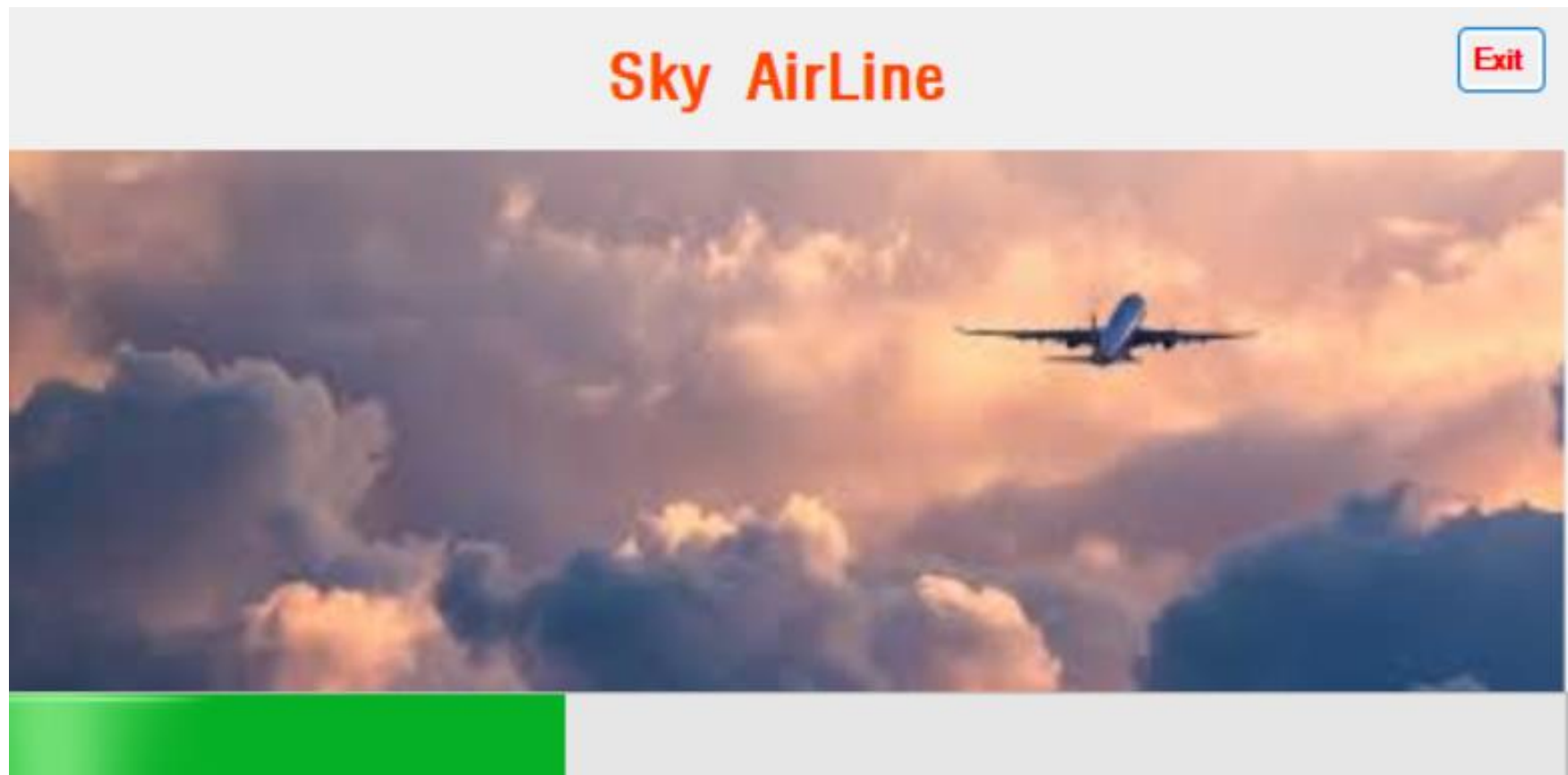
```
CREATE TABLE aircraft (  
  id INT IDENTITY(1,1) PRIMARY KEY,  
  model VARCHAR(255) NOT NULL,  
  capacity INT NOT NULL  
);
```

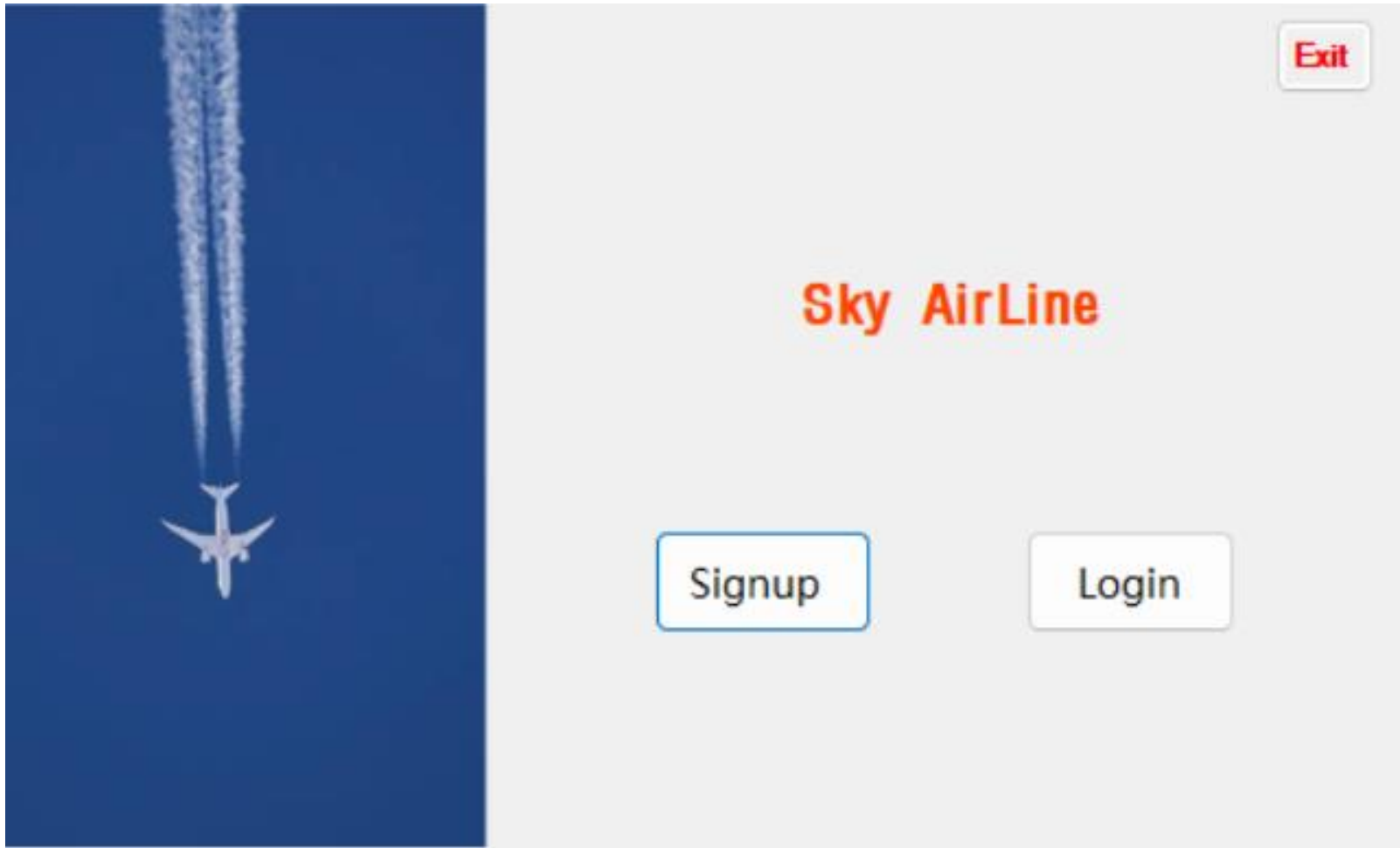
```
CREATE TABLE flight (  
  id INT IDENTITY(1,1) PRIMARY KEY,  
  origin INT NOT NULL,  
  destination INT NOT NULL,  
  departure_date DATETIME NOT NULL,  
  arrival_date DATETIME NOT NULL,  
  aircraft_id INT NOT NULL,  
  FOREIGN KEY (aircraft_id) REFERENCES aircraft (id),  
  FOREIGN KEY (origin) REFERENCES airport (id),  
  FOREIGN KEY (destination) REFERENCES airport (id)  
);
```

```
CREATE TABLE booking (  
  user_id INT NOT NULL,  
  flight_id INT NOT NULL,  
  seat_number INT NOT NULL,  
  [class] VARCHAR(50) NOT NULL CHECK ([class] IN ('economy',  
'business','first')),  
  FOREIGN KEY (user_id) REFERENCES [user] (id),  
  FOREIGN KEY (flight_id) REFERENCES flight (id),  
  PRIMARY KEY (user_id, flight_id, seat_number)  
);
```


```
CREATE TABLE airport (  
  id INT IDENTITY(1,1) PRIMARY KEY,  
  name VARCHAR(255) NOT NULL,  
  city VARCHAR(255) NOT NULL,  
  country VARCHAR(255) NOT NULL  
);
```

Screenshots





Signing up a new user




Exit

Username

Password

Create Back

Login



Exit

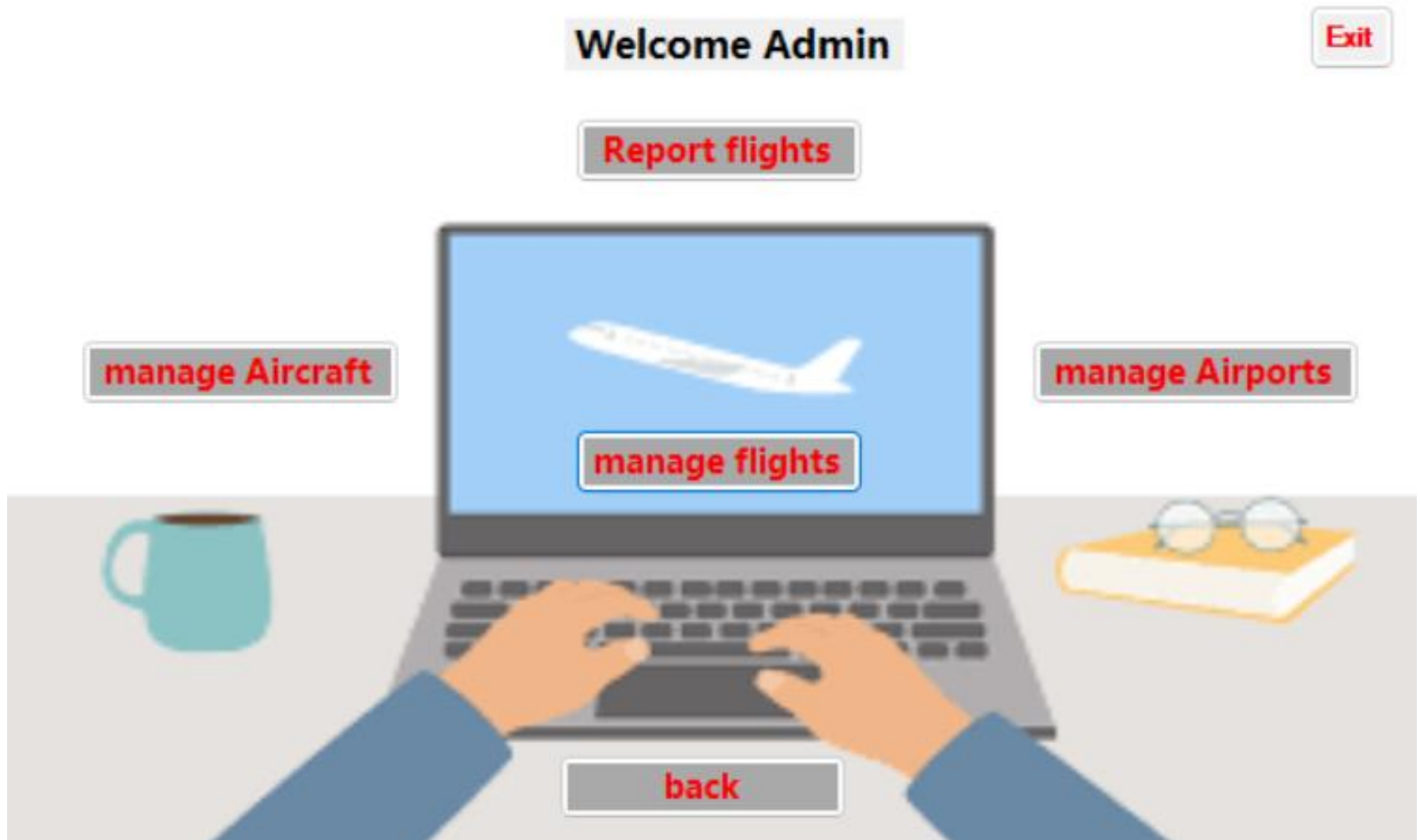
ID

Password

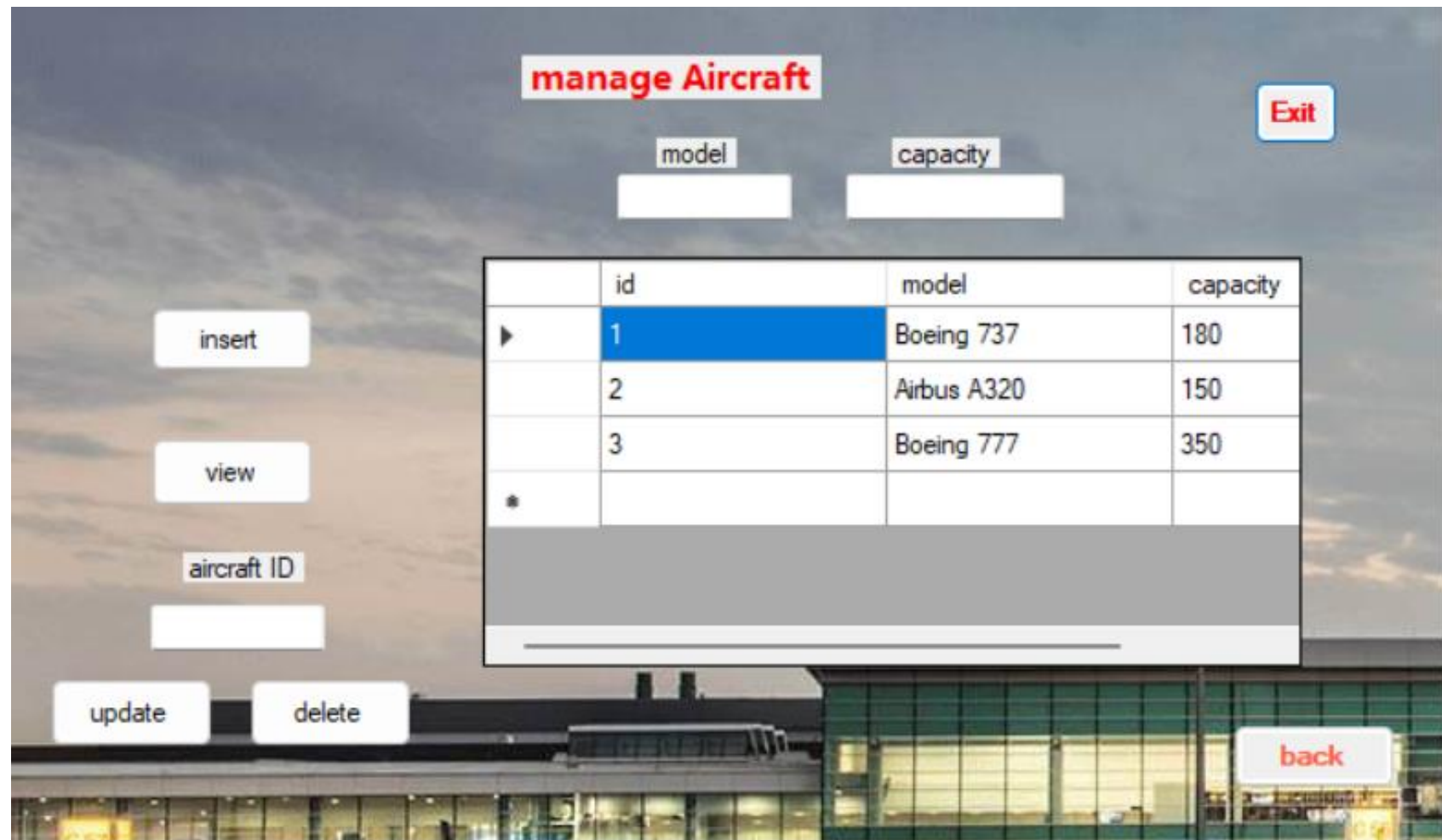
Login

back

admin interface



Adding an aircraft Updating an aircraft details



manage Aircraft

model capacity

insert

view

aircraft ID

update delete

back

Exit

| | id | model | capacity |
|---|----|-------------|----------|
| ▶ | 1 | Boeing 737 | 180 |
| | 2 | Airbus A320 | 150 |
| | 3 | Boeing 777 | 350 |
| ✱ | | | |

Adding an airport Updating an airport details

manage Airports

Exit

name

city

country

insert

view

airport ID

update

delete

| | id | name | city |
|---|----|---------------------------|----------|
| ▶ | 1 | John F. Kennedy Inter... | New York |
| | 2 | Heathrow Airport | London |
| | 3 | Charles de Gaulle Airport | Paris |
| • | | | |

back

Adding a flight Updating a flight details.

manage flights

Exit

origin

John F. Kenne ▾

destination

John F. Kenne ▾

departure date

Tuesday , May 23, ▾

arrival date

Tuesday , May 23, ▾

aircraft ID

Boeing 737 ▾

insert

view

flight ID

| | flightID | origin | destination | departure_date | arrival_date | aircraftName |
|---|----------|----------------------|----------------------|--------------------|--------------------|--------------|
| ▶ | 1 | John F. Kennedy ... | Heathrow Airport | 5/23/2023 10:00... | 5/23/2023 3:00 ... | Boeing 737 |
| | 2 | Heathrow Airport | Charles de Gaulle... | 5/24/2023 9:00 ... | 5/24/2023 11:30... | Airbus A320 |
| | 3 | Charles de Gaulle... | John F. Kennedy ... | 5/25/2023 2:00 ... | 5/25/2023 5:30 ... | Boeing 777 |
| | 4 | John F. Kennedy ... | Charles de Gaulle... | 5/22/2023 10:59... | 5/24/2023 10:59... | Airbus A320 |
| | 5 | Charles de Gaulle... | Heathrow Airport | 5/23/2023 | 5/24/2023 | Airbus A320 |

update

delete

back

User interface



Updating a user's details



EditUser

New Username

New Password

Edit

Exit

Back

Performing operations on flights: booking

origin

John F. Kenne ▾

destination

Heathrow Airp ▾

date

Tuesday . May 23, 2023 ▾

Search

Exit

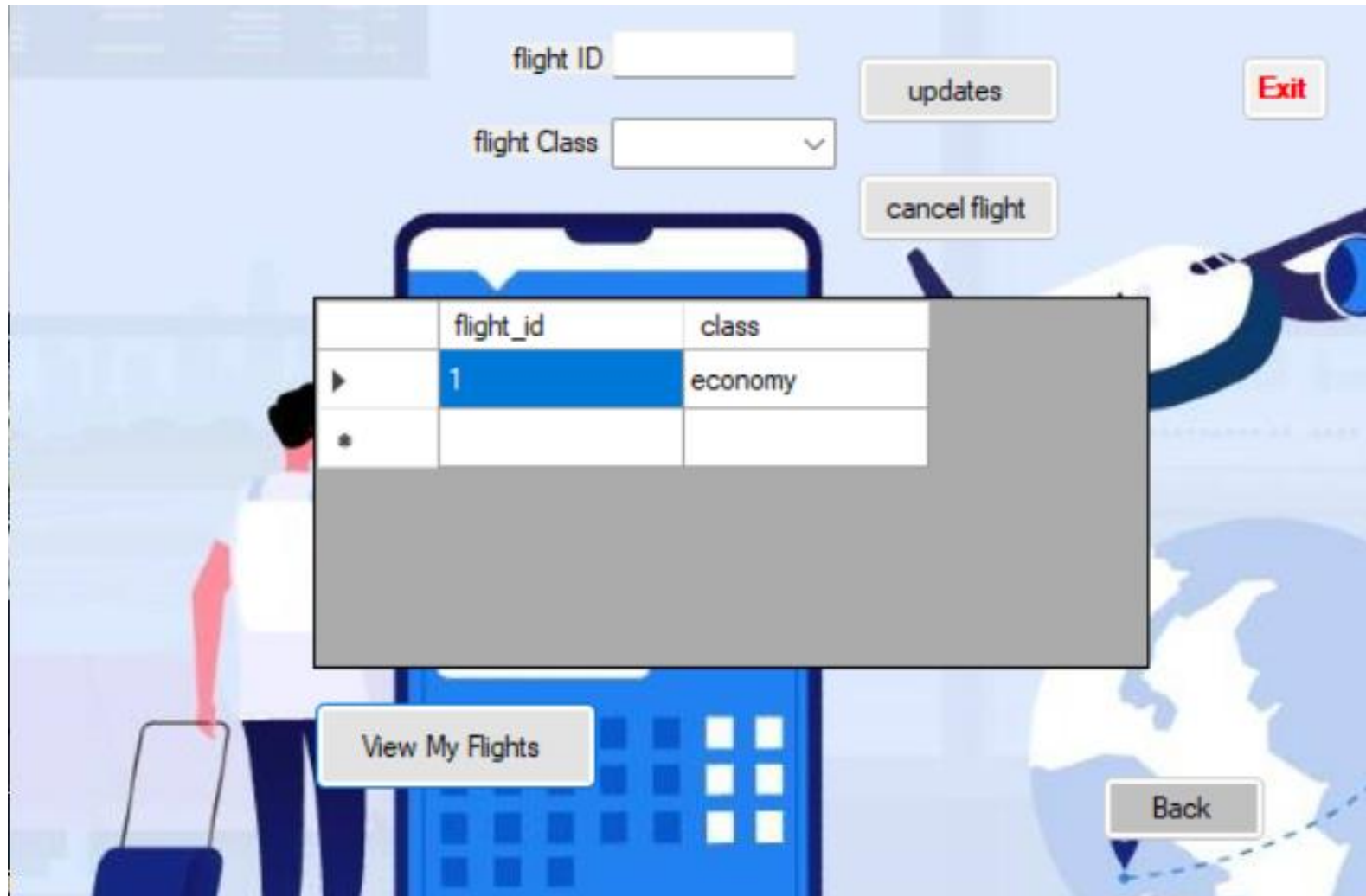
| | flightID | origin | destination | departureDate | arivalDate |
|---|----------|---------------------|------------------|--------------------|--------------------|
| ▶ | 1 | John F. Kennedy ... | Heathrow Airport | 5/23/2023 10:00... | 5/23/2023 3:00 ... |

flight ID

book

Back

Performing operations on flights cancelling



The interface features a light blue background with a stylized illustration of a person with a suitcase and a globe. At the top, there are input fields for 'flight ID' and 'flight Class', followed by buttons for 'updates', 'cancel flight', and 'Exit'. A 'View My Flights' button is located at the bottom left, and a 'Back' button is at the bottom right. A semi-transparent table overlay is positioned in the center, displaying flight data.

| | flight_id | class |
|---|-----------|---------|
| ▶ | 1 | economy |
| * | | |