Cairo University
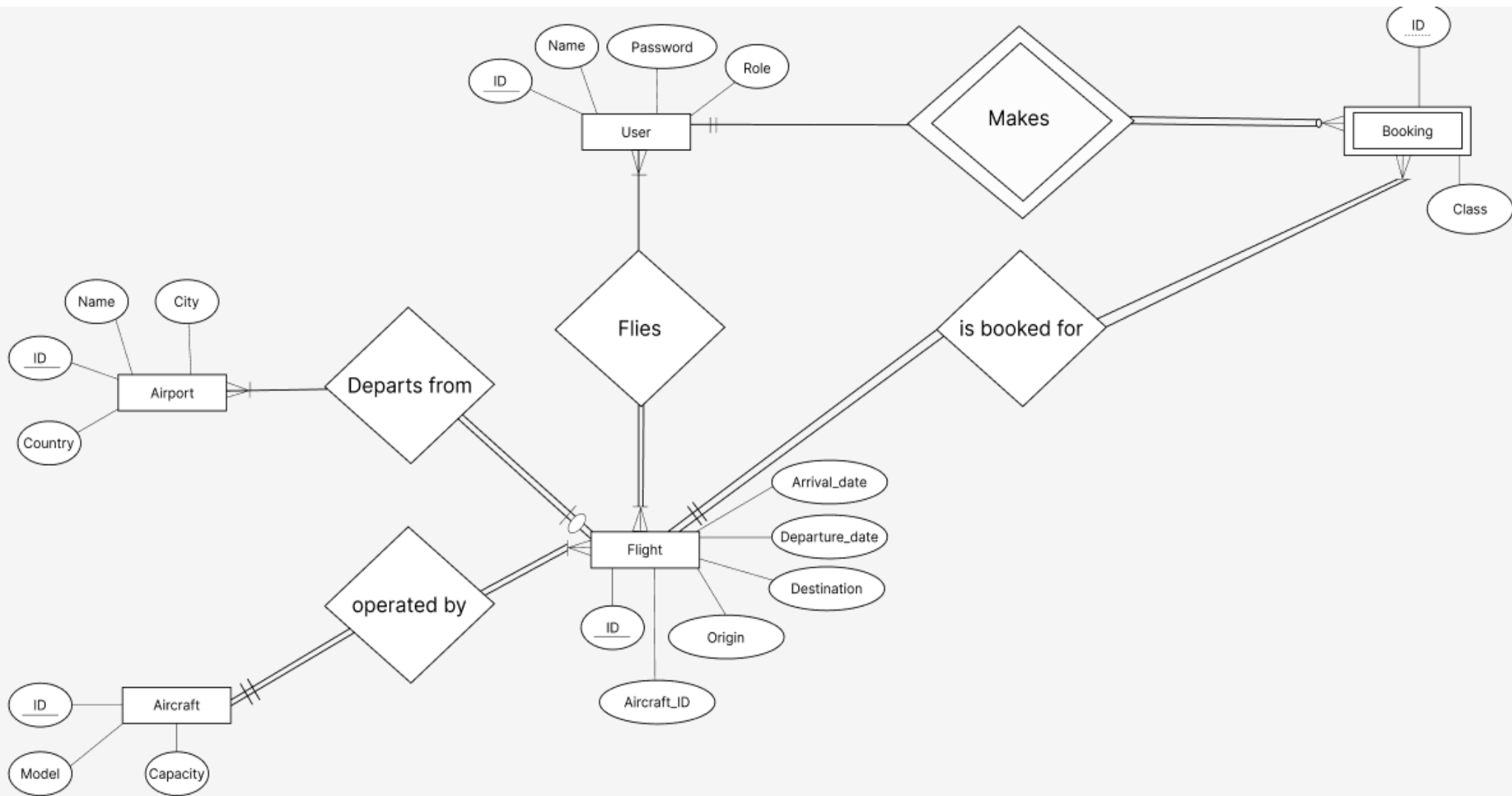## Faculty of Computers and Artificial Intelligent

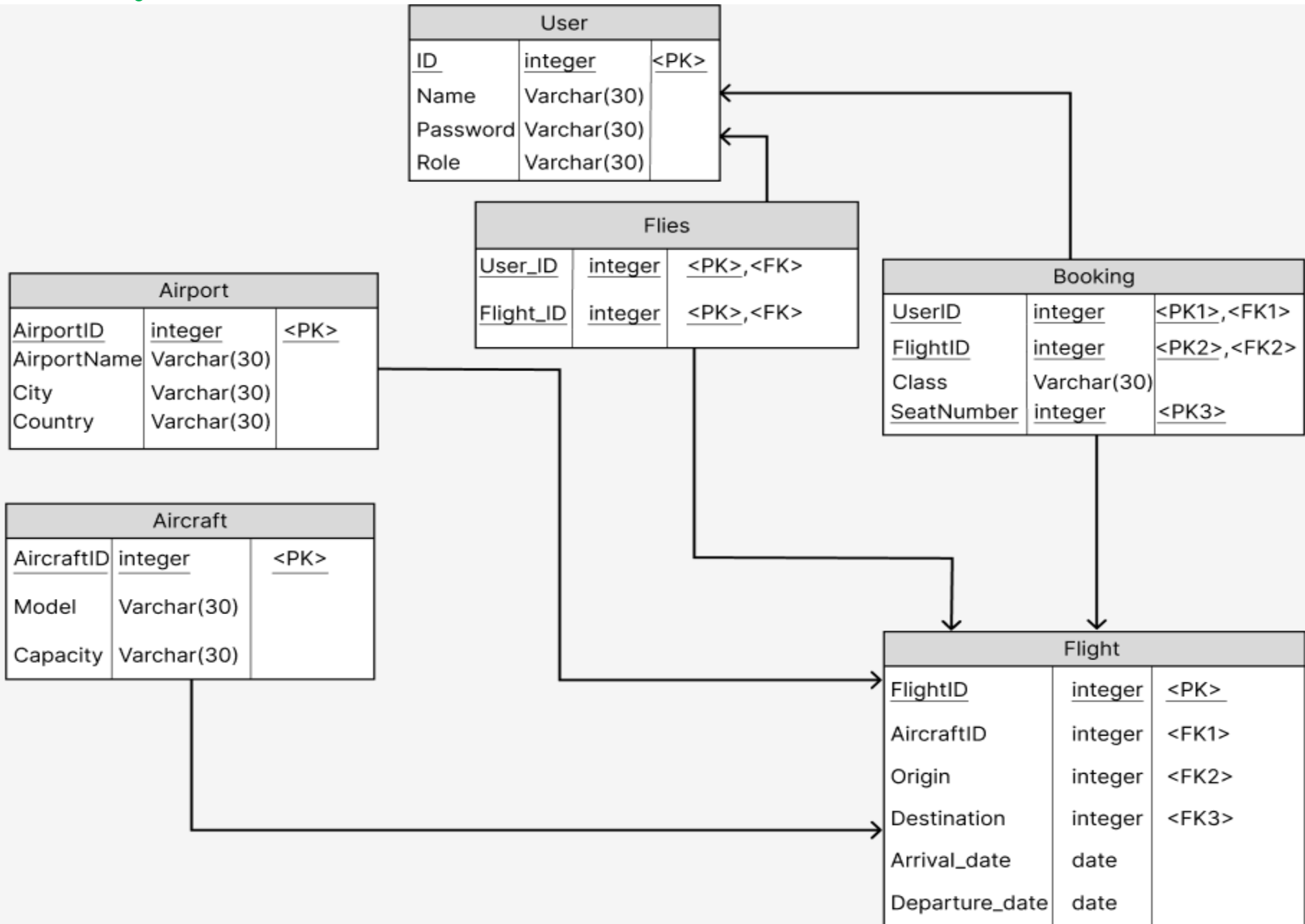# *Database project*

#	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

User

ID	integer	<PK>
Name	Varchar(30)	
Password	Varchar(30)	
Role	Varchar(30)	

Flies

User_ID	integer	<PK>,<FK>
Flight_ID	integer	<PK>,<FK>

Airport

AirportID	integer	<PK>
AirportName	Varchar(30)	
City	Varchar(30)	
Country	Varchar(30)	

Booking

UserID	integer	<PK1>,<FK1>
FlightID	integer	<PK2>,<FK2>
Class	Varchar(30)	
SeatNumber	integer	<PK3>

Aircraft

AircraftID	integer	<PK>
Model	Varchar(30)	
Capacity	Varchar(30)	

Flight

FlightID	integer	<PK>
AircraftID	integer	<FK1>
Origin	integer	<FK2>
Destination	integer	<FK3>
Arrival_date	date	
Departure_date	date	

SQL code

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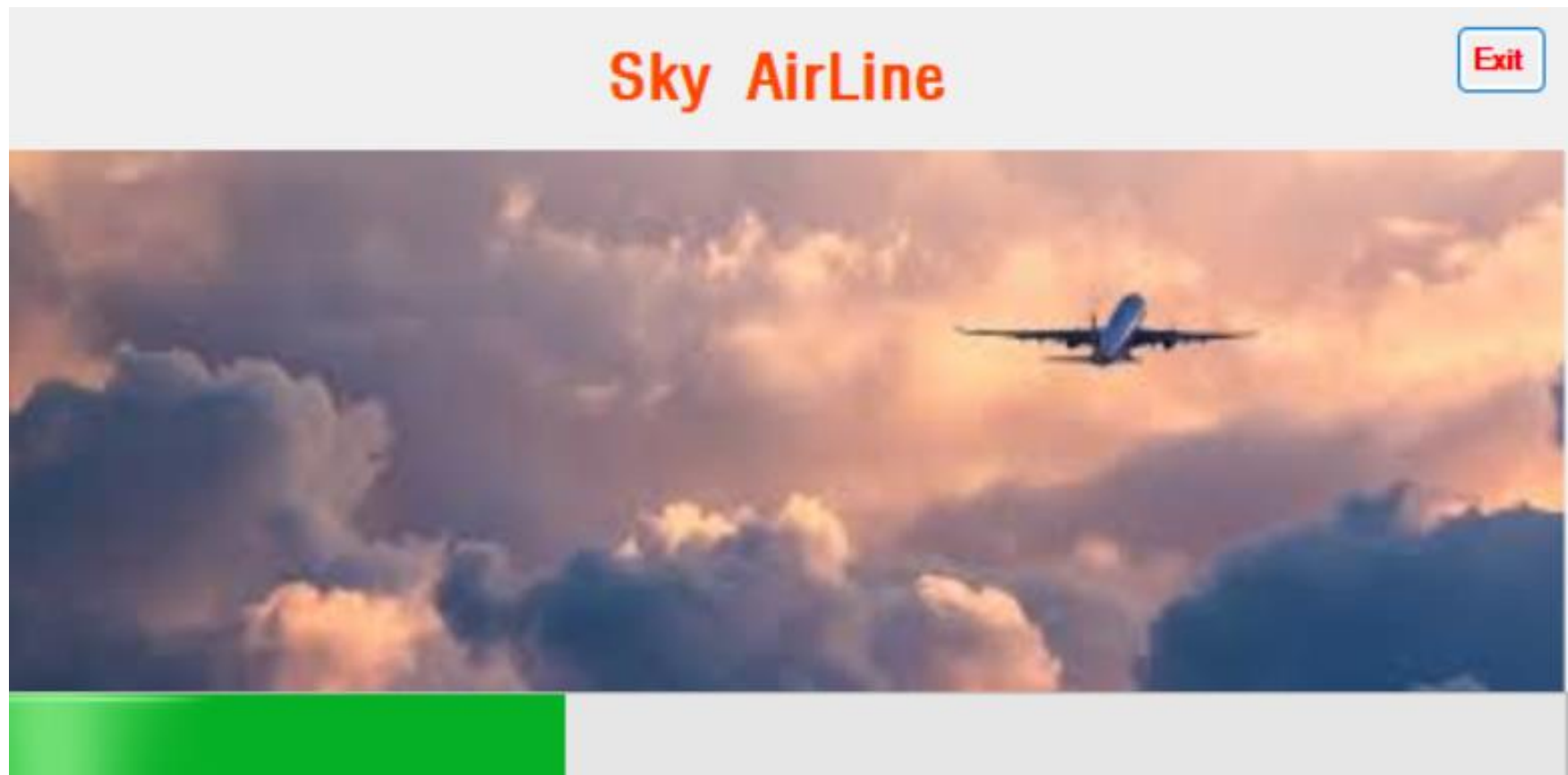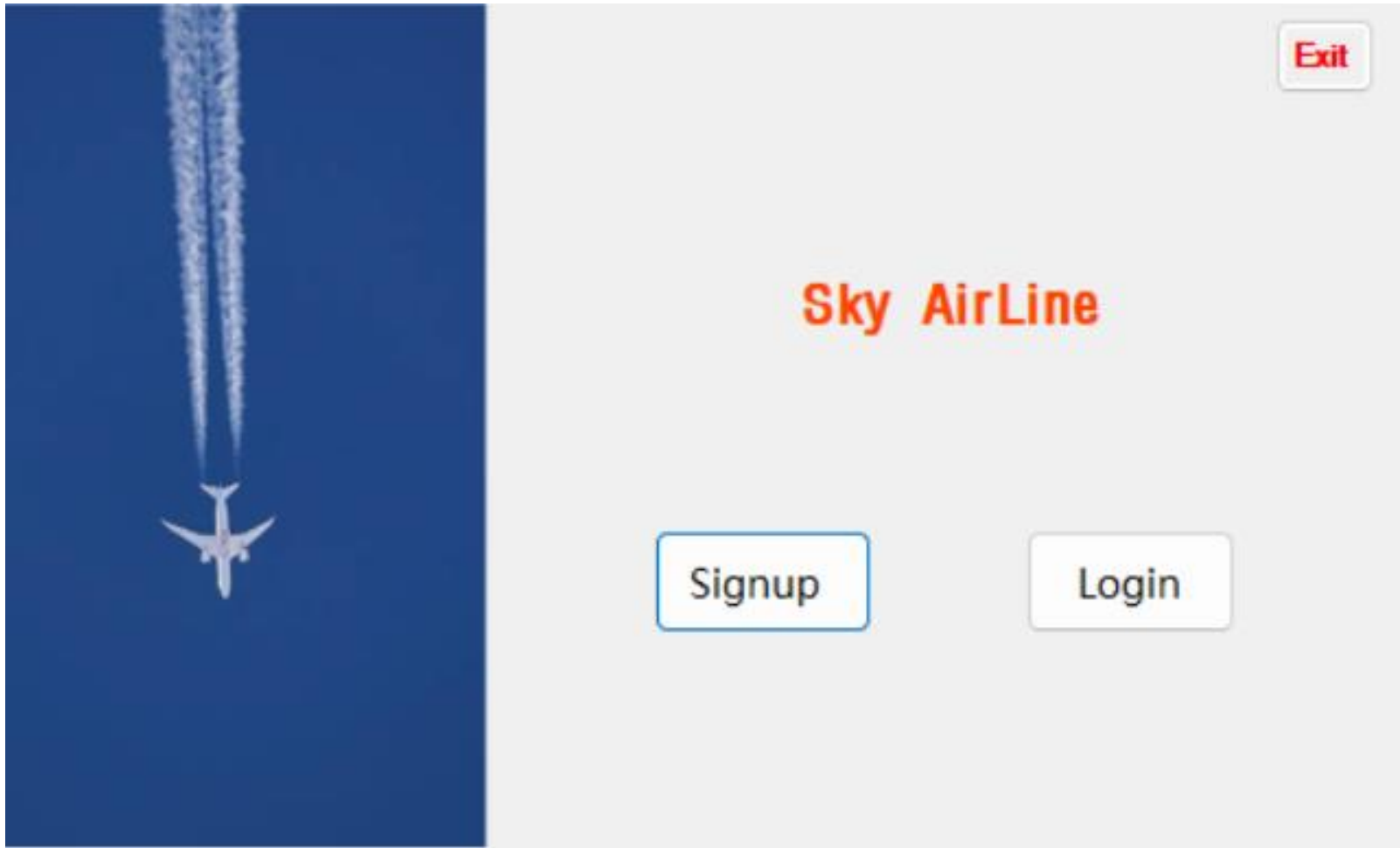
```sql
CREATE TABLE flight (
  id INT IDENTITY(1,1) PRIMARY KEY,
  origin INT NOT NULL,
  destination INT NOT NULL,
  departure_date DATETIME NOT NULL,
  arrival_date DATETIME NOT NULL,
  aircraft_id INT NOT NULL,
  FOREIGN KEY (aircraft_id) REFERENCES aircraft (id),
  FOREIGN KEY (origin) REFERENCES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

```sql
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

Sky AirLine

Exit

Signup

Login

Signing up a new user

Login

Exit

ID

Password
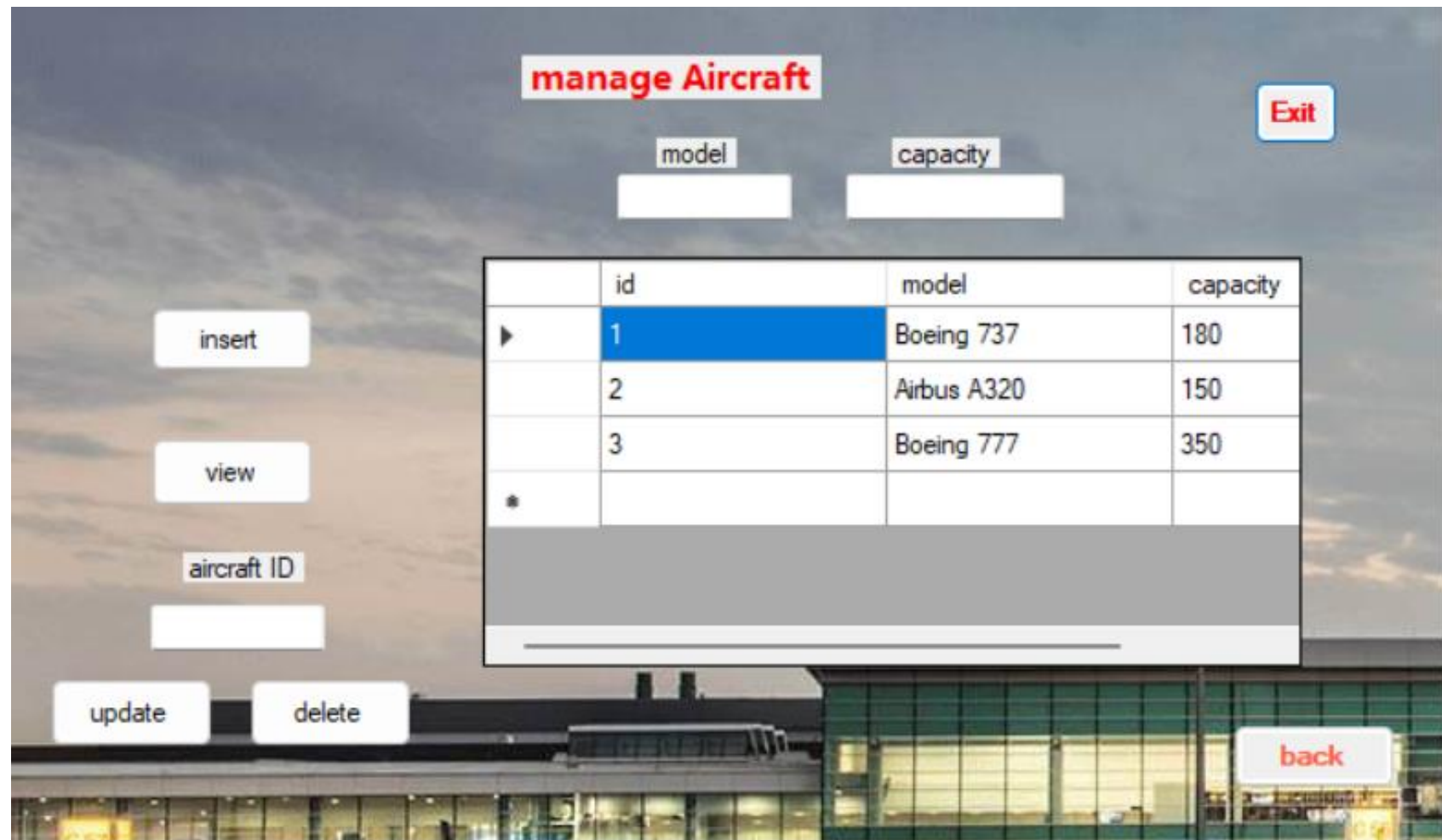
Login

back

admin interface

Welcome Admin

Exit

Report flights

manage Aircraft

manage Airports

manage flights
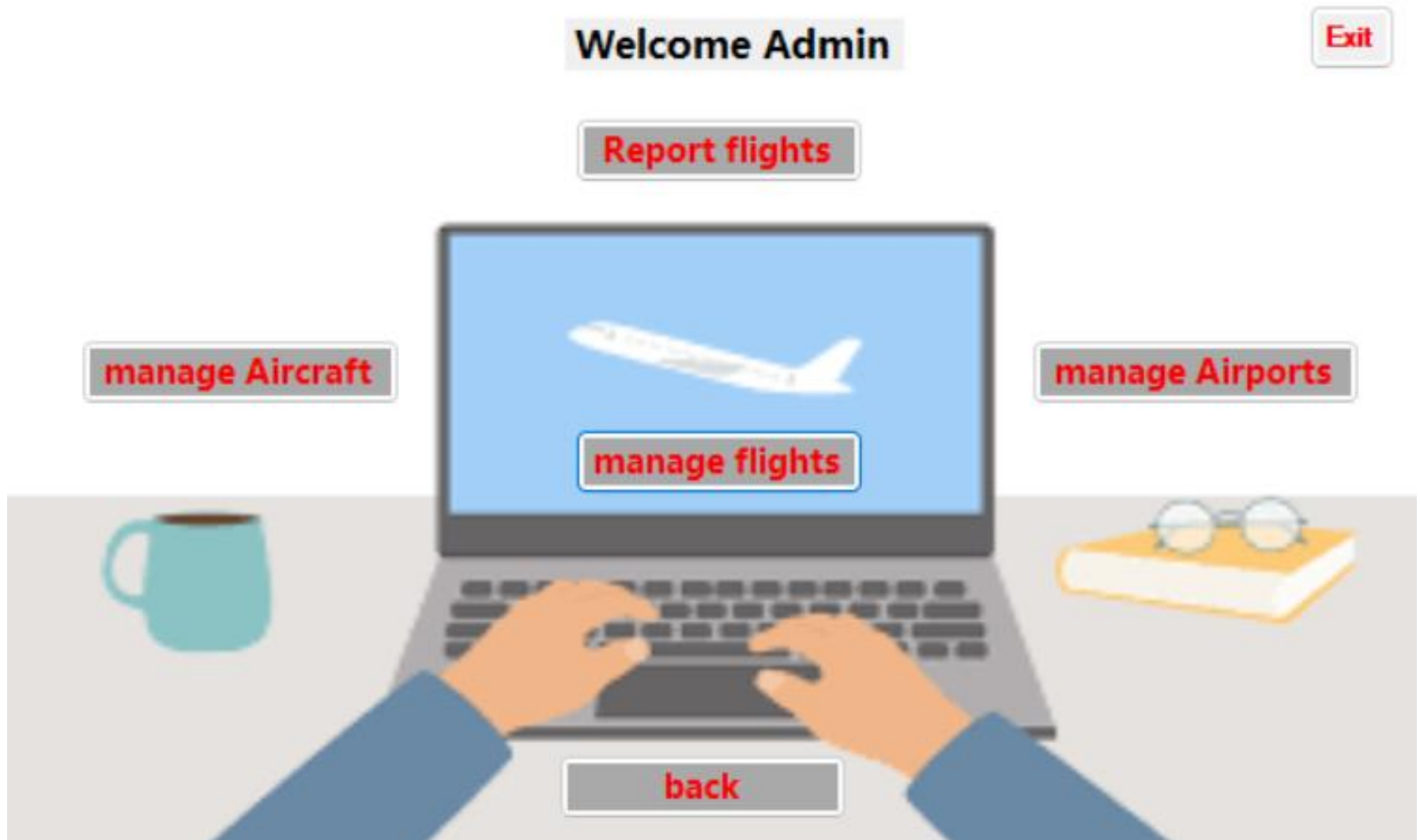
back

Adding an aircraft Updating an aircraft details

manage Aircraft

Exit

model

capacity

id	model	capacity
1	Boeing 737	180
2	Airbus A320	150
3	Boeing 777	350

insert

view

aircraft ID

update   delete

back

Adding an airport Updating an airport details

Adding a flight Updating a flight details.

User interface

Updating a user's details

Performing operations on flights: booking
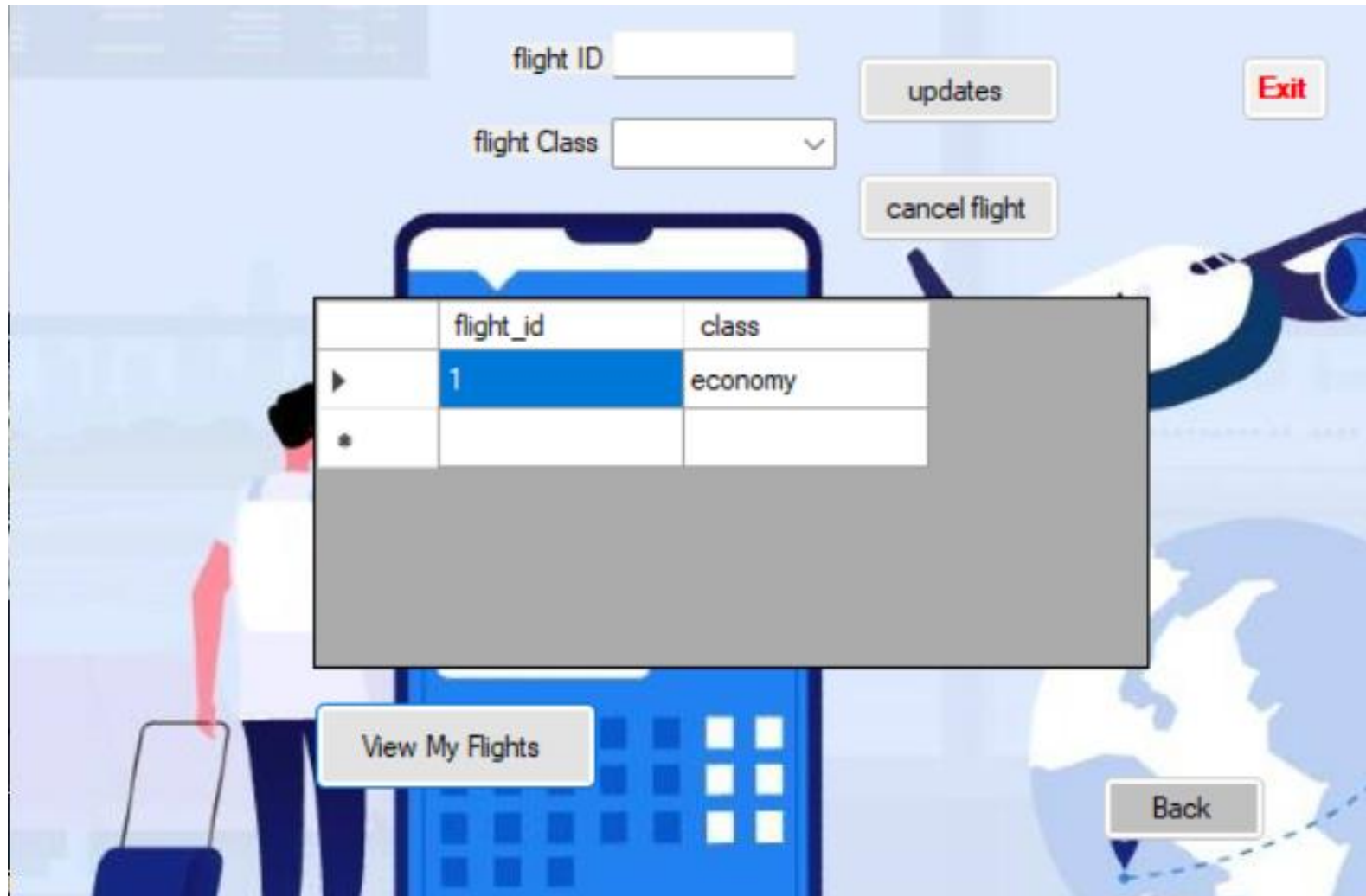
Performing operations on flights cancelling

flight ID _____

flight Class [▾]

updates

cancel flight

Exit

	flight_id	class	
▶	1	economy	
✱			

View My Flights

Back