Cairo University
Faculty of Engineering
Computer Engineering
Department CMP2020

# Introduction to Database Systems Buses booking company (Web based) Team Number: 6

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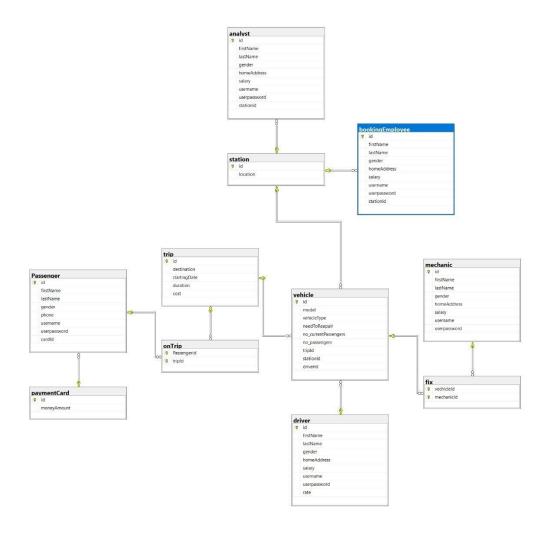
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### -Schema Diagram:



#### **Tables:**

- **1.Passenger:** Contains info about the passengers
  - Id: the unique id of the passenger
  - FirstName & lastName: the full name of the passsenger
  - Gender: sex of the passenger whether a male of female
  - Phone: phone number of the passenger
  - Username: the username of the passenger with which he can sign in the online website
  - Password: the password of the passenger which the online website require to let him in with the username
  - Card id: the id of the card which the passenger bought to pay his trips fees
- **2.PaymentCard:** Contains info about the card which a certain passenger has
  - Id: the unique id of the card
  - MoneyAmount: Money balance of the card
- **3.OnTrip:** Contains the ids of the passengers and the their trips
  - PassengerId: the id of the a certain trip
  - TripId: the id of the trip which the passenger booked
- **4.Trip:**Contains info about the available trips
  - Id: the unique id of the trip
  - Destination: the place to which the trip will travel
  - StartingDate: the date in which the trip will begin its journey
  - Duration: the estimated time of the trip
  - Cost: the booking fee of the trip
- **5.Vehicle:** Contains info about the company vehicles
  - Id: the unique id of the vehicle
  - Model: the model of the vehicle
  - VehicleType: the type of the vehicle whether it is a bus, superjet ...etc

- NeedToReapair:flag indicates whether the vehicle has broken down and need repairing
- No\_currentPassengers:the number of passengers booked a seat in this vehicle
- No passengers: the max number of passengers the vehicle
- can transfer comfortably
- TripId: the current trip that uses the vehicle
- StationId: the id of the station to which the vehicle belongs
- driverId: the id of the driver who is responsible for the vehicle

#### **6.Driver:** Contain info about the drivers

- Id:the unique id of the driver
- FirstName & LastName: the full name of the driver
- Gender: the sex of the driver
- HomeAddress: the address of the driver's home
- Salary: current salary per month of the driver
- Username: the username of the driver with which he can sign in the online website
- Password: the password of the driver which the online website require to let him in with the username
- Rate:the average rate of the driver given by passengers

#### **7.Mechanic:** Contain info about the mechanics

- Id:the unique id of the mechanic
- FirstName & LastName: the full name of the mechanic
- Gender: the sex of the mechanic
- HomeAddress: the address of the mechanic's home
- Salary: current salary per month of the mechanic
- Username: the username of the mechanic with which he can sign in the online website
- Password: the password of the mechanic which the online website require to let him in with the username

**8.Fix:** Contains the ids of the mechanics and the vechile assinged to them for repairing

- MechanicId: the id of the a certain mechanic
- VehicleId: the id of the vehicle which the mechanic is repairing

## **9.BookingEmployee:** Contain info about the booking employees

- Id:the unique id of the booking employee
- FirstName & LastName: the full name of the booking employee
- Gender:the sex of the booking employee
- HomeAddress: the address of the booking employee's home
- Salary: current salary per month of the booking employee
- Username: the username of the booking employee with which he can sign in the online website
- Password: the password of the booking employee which the online website require to let him in with the username
- StationId: the id of the station in which the booking employee works

#### **10. Analyst:** Contain info about the analysts

- Id:the unique id of the analyst
- FirstName & LastName: the full name of the analyst
- Gender:the sex of the analyst
- HomeAddress: the address of the analyst's home
- Salary: current salary per month of the analyst
- Username: the username of the analyst with which he can sign in the online website
- Password: the password of the analyst which the online website require to let him in with the username
- StationId: the id of the station in which the analyst works

#### 11.Station: Contain info about the stations

- Id: the unique id of the station
- Location: the location of the station