# Capstone 3: Eco-Friendly transportation system

## Models

Underlined words mean relationships in each model.

### Shamsa

- User
    a. id
    b. Email
    c. Phone number
    d. Age
    e. phoneNumber
    f. Password
    g. Rides, default = 0
    h. Rating
    i. Comment
    j. <u>Set&lt;Rent&gt;, Shamsa</u>
    k. **CRUD**

- Company
    a. id
    b. CompanyName
    c. Quantity
    d. transportType
    e. <u>Set&lt;Cars&gt;, Lamia</u>
    f. <u>Set&lt;Bicycle&gt;, Lamia</u>
    g. <u>Set&lt;Scooter&gt;, Lamia</u>
    h. **CRUD**

- Rent
    a. Id
    b. dropoffLocation
    c. PickUpLocation
    d. transportType
    e. fuelPercentage
    f. transportName
    g. pinNumber
    h. quantity

i. price
j. rentStatus, rented - not rented- not available. default= not rented
k. returnStatus, not returned- returned> when rent change to not returned > when returned change to returned
l. startDate,LocalDateTime
m. endDate,LocalDateTime
n. rentDuration
o. RentalHistory, Nahj
p. User, Shamsa
q. Set<Cars>, Lamia
r. Set<Bicycle>, Lamia
s. Set<Scooter>, Lamia
t. Set<Station>, Nahj
u. pickupStation, Nahj
v. dropOffStation, Nahj
w. **CRUD ( AddRent - Nahj)**

# Lamia

- Car
    a. id
    b. carType
    c. carName
    d. carModel
    e. fuelPercentage
    f. location
    g. numSeats
    h. price
    i. pinNumber
    j. rentStatus
    k. Company, Shamsa
    l. Set<Station>, Nahj
    m. Set<Rent>,Shamsa
    n. **CRUD**

- Bicycle
    a. Id
    b. Model
    c. bicycleName
    d. Features
    e. pinNumber
    f. numOfWheels
    g. Location
    h. Price

        i.   rentStatus
        j.   <u>Company, Shamsa</u>
        k.  <u>Set&lt;Station&gt;, Nahj</u>
        l.   <u>Set&lt;Rent&gt;,Shamsa</u>
        **m. CRUD**

- Scooter
    - a. Id
    - b. Model
    - c. scooterName
    - d. Features
    - e. maxSpeed
    - f. pinNumber
    - g. chargePercentage
    - h. Location
    - i. Price
    - j. rentStatus
    - k. <u>Company, Shamsa</u>
    - l. <u>Set&lt;Station&gt;, Nahj</u>
    - m. <u>Set&lt;Rent&gt;,Shamsa</u>
    - **n. CRUD**

# <u>Nahj</u>

- Station
    - a. Id
    - b. dropOffStation
    - c. pickUpStation
    - d. haveChargingStation, default=false
    - e. pickUpCapacity
    - f. dropOffCapacity
    - g. Status
    - h. <u>Set&lt;Cars&gt;, Lamia</u>
    - i. <u>Set&lt;Bicycle&gt;, Lamia</u>
    - j. <u>Set&lt;Scooter&gt;, Lamia</u>
    - k. <u>Set&lt;Rent&gt;, Shamsa</u>
    - l. <u>List&lt;Rent&gt;,Nahj</u>
    - **m. CRUD**

- Rental History
    - a. rental ID
    - b. User ID

c. transportName
d. Station  (pickup)
e. Station (drop off)
f. Start Time
g. End Time
h. Duration
i. Status
j. FuelLevel
k. Comment
l. Rating
m. Rent, Shamsa
n. CRUD

- RentalHistoryDTO:
    a. rental ID
    b. User ID
    c. transportName
    d. Station  (pickup)
    e. Station (drop off)
    f. Start Time
    g. End Time
    h. Duration
    i. Status
    j. FuelLevel
    k. Comment
    l. Rating

# Endpoints

## Shamsa

1. User
   - Add comment and rating, userid- body:comment,rating
   - Get total rides

2. Company
   - changeTransportation Type
   - Get transportation types(cars, bike, scooter)
3. Rental History
   - Get all by user id
   - Get by type:cars,bike,scooter > user
   - Get one history:rent id
   - Get review by id, history or rent

## Lamia

4. Bicycle
   - View all bike available, status not rented
   - View by type:2 Or 4
   - View by model
   - Average rating

5. Scooter
   - View by model
   - View all scooter available, status not rented
   - Average rating

6. Station
   - Find stations by status
   - View status of a station
   - View stations that have charging

## Nahj

7. Car
   - View all cars available, status not rented
   - View by type:sedan or luxury, sport

- ○ Get specific details :carName
- ○ getSpecificDetails

## 8. Rent

- ○ Return rent
- ○ Rent
- ○ byAvailability
- ○ Private methods:
    - i. *createRent*
    - ii. *pricePerDuration*