

POSTMAN
REST API

MAIN
BACKEND
SERVICE

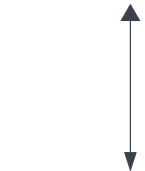


Oracle SQL Database

PET PROJECT IDEA (c) olhe0220
"CAR RENT"

- I. Client:
- customer has a unique ID number --> client_id;
 - customer has **mandatory** E-Mail --> email;
 - customer has **mandatory** Contact Phone with +380 mask --> phone;
 - customer can be either **Residential** or a **Company** --> customer_type;
Residential has First and Last Name --> {first_name, last_name}
Company has Company Name --> company_name;

- II. Automobile:
- car has a unique car ID number --> car_id;
 - car has a **mandatory** class id --> class_id;
 - car may be 'Available' or 'Not Available' for a rent;
 - car has a **mandatory** model name --> car_name;
 - car has a **mandatory** production year --> release_date;
 - car has a **mandatory** fuel type --> fuel_id;
 - car has a **mandatory** engine volume --> engine_volume;
 - car has a **mandatory** gear box type --> gear_type_id;
 - cas has a **mandatory** country of origin --> country_id;
 - car has a **mandatory** rate basis --> rate_id;



Assumptions

1. *client* may rent **several cars**.
2. amount of automobiles for available rent is regulated by counters specifically for a customer;
3. *cars* varies by different **classification**.
4. each **classification** can have **different rate** plans.
5. **rate plan** based on the classification had dirrent **mortgage percent**.

Business Cycle Example

1. Customer creation (check if all mandatory parameters are filled in).
2. List all car CLASSIFICATIONS available on the site.
3. Assign the CAR to CLIENT:
 - implement validation to check if appropriate car_id or client_id is present;
 - implement validation by CAR availability to evade discrepancies;
 - resulting operation should assign client_id to appropriate car_id and change the car_id status to 'Not Available';
4. Increase COUNTERs for appropriate customer in case of CARs assignment to a CLIENTs;
5. Return the final bill for customer which has CARs;
6. De-assign the car from customer after the bill payment:
 - set car status 'Available';
 - decrement customer's counter with appropriate car class_id;