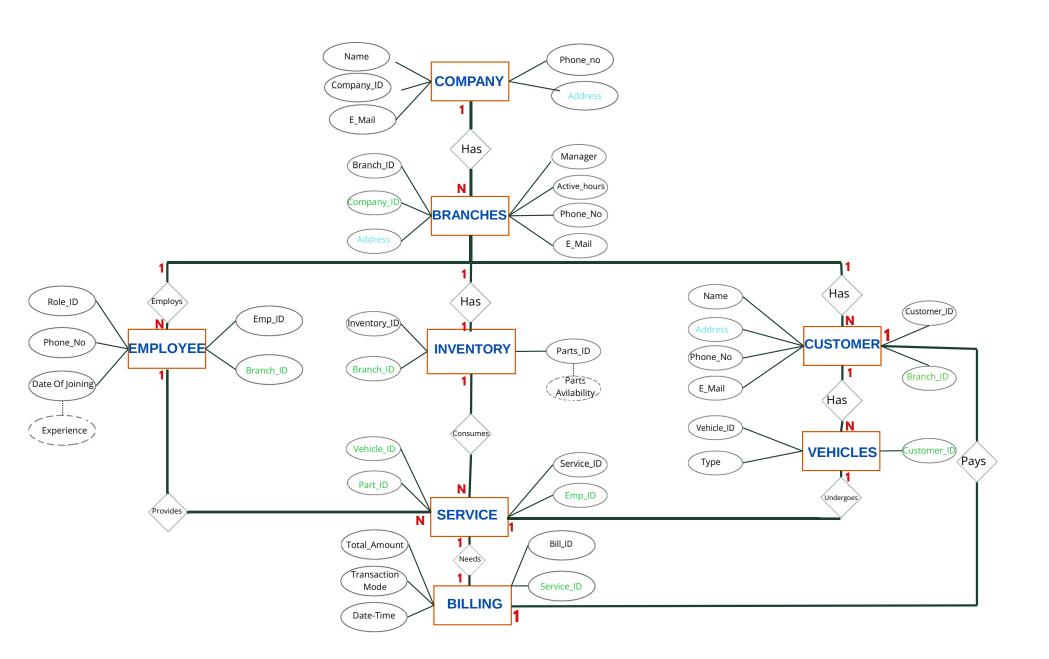


#### **STEPS INVOLVED:**

- 1.One company has many branches. Each branch belongs to one company(1:N)
- 2.One branch employs many employees. Each employee works at one branch(1:N))
- 3. Customers are typically linked to branches. (N:1)
- 4.One customer can own multiple vehicles. Each vehicle belongs to one customer(1:N)
- 5.Each branch manages one inventory(1:1)
- 6.One inventory item can be used in many services.(1:N)
- 7.Many services can be handled by one employee, but each service is handled by one employee(N:1)
- 8.Each vehicle undergoes 1 service at a time (1:1)
- 9.Each service generates one billing record(1:1)



# Database schemas:

Company, Branches, Employee, Inventory, Customer, Vehicle, Service, Billing

### Relational schemas:

#### Company-company\_id, name, e\_mail, phone\_no, address

| company_id | name         | e_mail                | phone_no   | address          |
|------------|--------------|-----------------------|------------|------------------|
| C001       | AutoCorp     | contact@autocorp.com  | 1234567890 | New York, USA    |
| C002       | AutoFix      | support@autofix.com   | 9876543210 | Los Angeles, USA |
| C003       | SpeedyWheels | info@speedywheels.com | 4567891230 | Chicago, USA     |
| C004       | CarCare      | help@carcare.com      | 7891234560 | Miami, USA       |

### branches-<u>branch\_id</u>, company\_id, manager, active\_hours, phone\_no,e\_mail,address

| branch_id | company_id | manager         | active_hours | phone_no   | e_mail                | address              |
|-----------|------------|-----------------|--------------|------------|-----------------------|----------------------|
| B001      | C001       | John<br>Smith   | 9:00-18:00   | 1234500000 | john@autocorp.com     | Manhattan,<br>NY     |
| B002      | C002       | Emma<br>Brown   | 10:00-19:00  | 9876500000 | emma@autofix.com      | Beverly<br>Hills, CA |
| B003      | C003       | Liam<br>Johnson | 8:00-17:00   | 4567800000 | liam@speedywheels.com | Lincoln<br>Park, IL  |
| B004      | C004       | Olivia<br>Davis | 11:00-20:00  | 7891200000 | olivia@carcare.com    | Downtown,<br>Miami   |

# employees-emp\_id, branch\_id, role\_id, phone\_no,date\_of\_joining,experience

| emp_id | branch_id | role_id | phone_no   | date_of_joining | experience |
|--------|-----------|---------|------------|-----------------|------------|
| E001   | B001      | R001    | 1234501001 | 2021-06-15      | 3 years    |
| E002   | B002      | R002    | 9876501002 | 2022-01-20      | 2 years    |
| E003   | B003      | R003    | 4567801003 | 2020-08-10      | 4 years    |
| E004   | B004      | R001    | 7891201004 | 2023-03-05      | 1 year     |

#### inventory-inventory\_id, branch\_id, parts\_id, parts\_availability

| inventory_id | branch_id | parts_id | parts_availability |
|--------------|-----------|----------|--------------------|
| INV001       | B001      | P001     | 50                 |
| INV002       | B002      | P002     | 30                 |
| INV003       | B003      | P003     | 40                 |
| INV004       | B004      | P004     | 25                 |

#### customer- Customer\_ID, branch\_id, Name, Address, Phone\_No, E\_Mail

| customer_id | branch_id | name          | address | phone_no   | e_mail             |
|-------------|-----------|---------------|---------|------------|--------------------|
| CUST001     | B001      | Michael Green | NY, USA | 1122334455 | michaelg@gmail.com |
| CUST002     | B002      | Sarah White   | CA, USA | 2233445566 | sarahw@gmail.com   |
| CUST003     | B003      | David Black   | IL, USA | 3344556677 | davidb@gmail.com   |
| CUST004     | B004      | Laura Blue    | FL, USA | 4455667788 | laurab@gmail.com   |

#### vehicle - vehicle\_id, customer\_id, type

| vehicle_id | customer_id | type        |
|------------|-------------|-------------|
| V001       | CUST001     | Sedan       |
| V002       | CUST002     | SUV         |
| V003       | CUST003     | Hatchback   |
| V004       | CUST004     | Convertible |

#### service- service\_id, emp\_id, vehicle\_id, part\_id

| service_id | bill_id | emp_id | vehicle_id | part_id |
|------------|---------|--------|------------|---------|
| S001       | BILL001 | E001   | V001       | P001    |
| S002       | BILL002 | E002   | V002       | P002    |
| S003       | BILL003 | E003   | V003       | P003    |
| S004       | BILL004 | E004   | V004       | P004    |

#### billing- bill\_id, service\_id, total\_amount, transaction\_mode, date\_time

| bill_id | service_id | total_amount | transaction_mode | date_time          |
|---------|------------|--------------|------------------|--------------------|
| BILL001 | S001       | 500          | Credit Card      | 2024-11-01 10:30AM |
| BILL002 | S002       | 750          | Cash             | 2024-11-02 12:45PM |
| BILL003 | S003       | 300          | Debit Card       | 2024-11-03 09:15AM |
| BILL004 | S004       | 400          | Online Payment   | 2024-11-04 03:00PM |



### **PRESENTED BY:**

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