

INTRODUCTION

Database Management System is software to create and manage databases, allowing users to create, read, update and delete in a database.

So, here we create a database management system which is called carshop management system.

The main objective of this database is to create a database where we can maintain or manage all the information of owner's carshop, car, employees, how many customers buy cars, how many sellers sell cars. This System stores all the customers information and when a customer order and done the payment. This all information will be handled in this management system. Here we create ten entities and entities are,

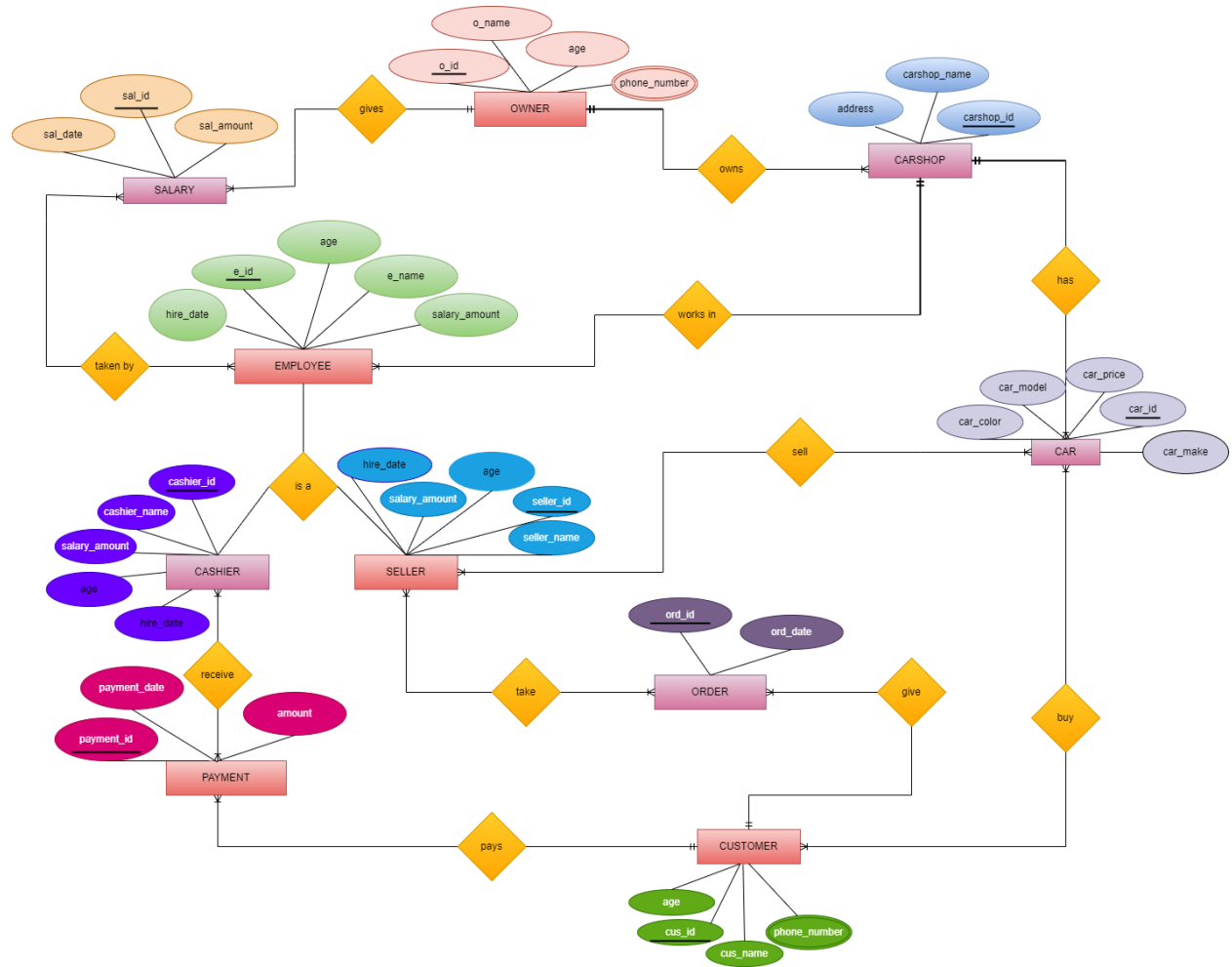
OWNER,CARSHOP, CAR, CUSTOMER, EMPLOYEE,SELLER,CASHIER,SALARY,ORDERS, PAYMENT.

SCENARIO

Carshop Management System contains Owner and Owner has unique attribute name O_id and other attributes are O_name, phone_number and age. Owner have many Carshops. Carshop is identified by carshop_id, carshop_name, address. Every Carshop is identified uniquely by carshop_id. Every Carshop have many different types of cars. Car is also identified by car_id, car_model,car_make, car_color, car_price. Every Carshop have so many employees. And employees are separated by cashiers and sellers also. An employee is identified by e_id, e_name, when an employee is hired, employee's age and employee's salary. Every employee are paid by Owner. Owner gives salary and salary is identified by sal_id, sal_amount, and when Owner gives salary to employee. Here Employees take salary from Owner. Employee is separated by Cashier and Seller. Seller is identified by seller_id, seller_name, age , when a seller is hired and seller's salary. Cashier is also identified by cashier_id, cashier_name, age , hiredate and salary. In this system we also store the information of a customer. So every customer is

identified by `cus_id`, `cus_name`, age and `phone_number`. When a customer buys car we keep this information in our management system. Customer choose the car and Order it to the seller. Seller take this Order and here Order has `ord_id` and when this order was given by a customer. After complete the process of ordering a car then a customer pays a payment to the cashier. Where payment is identified by `payment_id` and when payment was done and the amount also.

ER DIAGRAM:



NORMALIZATION:

OWNS(OWNER_CARSHOP):

UNF: O_id, O_name, age, phone_number

carshop_id, carshop_name, address

1 NF: phone_number is a Multivalued Attribute

O_id, O_name, age, phone_number

carshop_id, carshop_name, address

2 NF: O_id, O_name, age, phone_number

carshop_id, carshop_name, address, O_id

3 NF: No Transitive Dependency

O_id, O_name, age, phone_number

carshop_id, carshop_name, address, O_id

HAS(CARSHOP_CAR):

UNF: carshop_id, carshop_name, address

car_id, car_make, car_model, car_price, car_color

1 NF: No Transitive Dependency

carshop_id, carshop_name, address

car_id, car_make, car_model, car_price, car_color

2 NF: carshop_id, carshop_name, address

car_id, car_make, car_model, car_price, car_color, carshop_id

3 NF: No Transitive Dependency

carshop_id, carshop_name, address

car_id, car_make, car_model, car_price, car_color, carshop_id

BUY(CUSTOMER_CAR):

UNF: cus_id, cus_name, phone_number, age

car_id, car_make, car_model, car_price, car_color

1 NF: phone_number is a Multivalued Attribute

cus_id, cus_name, phone_number, age

car_id, car_make, car_model, car_price, car_color

2 NF: cus_id, cus_name, phone_number, age

car_id, car_make, car_model, car_price, car_color

cc_id, cus_id, car_id

3 NF: No Transitive Dependency

cus_id, cus_name, phone_number, age

car_id, car_make, car_model, car_price, car_color

cc_id, cus_id, car_id

GIVES(OWNER_SALARY):

UNF: O_id, O_name, age, phone_number

sal_id, sal_date, sal_amount

1 NF: phone_number is Multivalued Attribute

O_id, O_name, age, phone_number

sal_id, sal_date, sal_amount

2 NF: O_id, O_name, age, phone_number

sal_id, sal_date, sal_amount, O_id

3 NF: No Transitive dependency

O_id, O_name, age, phone_number

sal_id, sal_date, sal_amount, O_id

WORKS IN(EMPLOYEE_CARSHOP):

UNF: e_id, e_name, salary_amount, hire_date, age

carshop_id, carshop_name, address

1 NF: No Multivalued Attributes

e_id, e_name, salary_amount, hire_date, age

carshop_id, carshop_name, address

2 NF: e_id, e_name, salary_amount, hire_date, age, carshop_id

carshop_id, carshop_name, address

3 NF: No Transitive Dependency

e_id, e_name, salary_amount, hire_date, age, carshop_id

carshop_id, carshop_name, address

TAKEN BY(EMPLOYEE_SALARY):

UNF: e_id, e_name, salary_amount, hiredate,age

sal_id, sal_amount, sal_date

1 NF: No Multivalued Attributes

e_id, e_name, salary_amount, hiredate,age

sal_id, sal_amount, sal_date

2 NF: e_id, e_name, salary_amount, hiredate,age

sal_id, sal_amount, sal_date

ems_id, e_id, sal_id

3 NF: No Transitive Dependency

e_id, e_name, salary_amount, hiredate,age

sal_id, sal_amount, sal_date

ems_id, e_id, sal_id

IS A(EMPLOYEE_CAHIER):

UNF: e_id, e_name, salary_amount, hiredate, age

cashier_id, cashier_name, salary_amount, hire_date, age

1 NF: No Multivalued Attributes

e_id, e_name, salary_amount, hiredate, age

cashier_id, cashier_name, salary_amount, hire_date, age

2 NF: e_id, e_name, salary_amount, hiredate, age

cashier_id, cashier_name, salary_amount, hire_date, age, e_id

3 NF: No Transitive Dependency

e_id, e_name, salary_amount, hiredate, age

cashier_id, cashier_name, salary_amount, hire_date, age, e_id

IS A(EMPLOYEE_SELLER):

UNF: e_id, e_name, salary_amount, hiredate, age

seller_id, seller_name, salary_amount, hire_date, age

1 NF: No Multivalued Attributes

e_id, e_name, salary_amount, hiredate, age

seller_id, seller_name, salary_amount, hire_date, age

2 NF: e_id, e_name, salary_amount, hiredate, age

seller_id, seller_name, salary_amount, hire_date, age, e_id

3 NF: No Transitive Dependency

e_id, e_name, salary_amount, hiredate, age

seller_id, seller_name, salary_amount, hire_date, age, e_id

GIVE(CUSTOMER_ORDER):

UNF: cus_id, cus_name, phone_number, age

ord_id, ord_date

1 NF: phone_number Is a Multivalued Attribute

cus_id, cus_name, phone_number, age

ord_id, ord_date

2 NF: cus_id, cus_name, phone_number, age

ord_id, ord_date, cus_id

3 NF: No Transitive dependency

cus_id, cus_name, phone_number, age

ord_id, ord_date, cus_id

PAYS(CUSTOMER_PAYMENT):

UNF: cus_id, cus_name, age, phone_number

payment_id, payment_date, amount

1 NF: phone_number Is a Multivalued Attribute

cus_id, cus_name, age, phone_number

payment_id, payment_date, amount

2 NF: cus_id, cus_name, age, phone_number

payment_id, payment_date, amount, cus_id

3 NF: No Transitive Dependency

cus_id, cus_name, age, phone_number

payment_id, payment_date, amount, cus_id

RECEIVE(CASHIER_PAYMENT):

UNF: cashier_id, cashier_name, salary_amount, hire_date, age
payment_id, payment_date, amount

1 NF: No Multivalued Attributes

cashier_id, cashier_name, salary_amount, hire_date, age
payment_id, payment_date, amount

2 NF: cashier_id, cashier_name, salary_amount, hire_date, age
payment_id, payment_date, amount

cp_id, cashier_id, payment_id

3 NF: No Transitive Dependency

cashier_id, cashier_name, salary_amount, hire_date, age
payment_id, payment_date, amount
cp_id, cashier_id, payment_id

TAKE(SELLER_ORDER):

UNF: seller_id, seller_name, seller_amount, hire_date, age
ord_id, ord_date

1 NF: No Multivalued Attributes

seller_id, seller_name, seller_amount, hire_date, age
ord_id, ord_date

2 NF: seller_id, seller_name, seller_amount, hire_date, age
ord_id, ord_date

so_id, seller_id, ord_id

3 NF: No Transitive Dependency

seller_id, seller_name, seller_amount, hire_date, age
ord_id, ord_date

so_id, seller_id, ord_id

SELL(SELLER_CAR):

UNF: seller_id, seller_name, seller_amount, hire_date, age
car_id, car_make, car_model, car_price, car_color

1 NF: No Multivalued Attributes

seller_id, seller_name, seller_amount, hire_date, age
car_id, car_make, car_model, car_price, car_color

2 NF: seller_id, seller_name, seller_amount, hire_date, age
car_id, car_make, car_model, car_price, car_color
sc_id, seller_id, car_id

3 NF: No Transitive Dependency

seller_id, seller_name, seller_amount, hire_date, age
car_id, car_make, car_model, car_price, car_color
sc_id, seller_id, car_id

FINAL TABLE:

1. O_id, O_name, age, phone_number
2. carshop_id, carshop_name, address, O_id
3. car_id, car_model, car_make, car_color ,car_price, carshop_id
4. cus_id, cus_name, phone_number, age
5. cc_id ,car_id ,cus_id
6. sal_id, sal_amount , sal_date, O_id
7. e_id, e_name, salary_amount, hire_date, age, carshop_id
8. ems_id, e_id, sal_id
9. cashier_id, cashier_name, salary_amount, age, hire_date, e_id
10. seller_id, seller_name, salary_amount, age, hire_date, e_id
11. ord_id, ord_date, cus_id
12. payment_id, payment_date, amount, cus_id
13. cp_id, cashier_id, payment_id
14. so_id, seller_id ,ord_id
15. sc_id, seller_id, car_id

TABLE CREATION:

```
CREATE TABLE OWNER(O_id NUMBER(5) CONSTRAINT OWNER_PK PRIMARY KEY,  
O-name VARCHAR2(20),  
AGE NUMBER(3),  
phone number NUMBER(11) UNIQUE NOT NULL);
```

DESCRIBE OWNER;

Results Explain Describe Saved SQL History

Object Type	TABLE	Object	OWNER

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
OWNER	<u>O_ID</u>	Number	-	5	0	1	-	-	-
	<u>O_NAME</u>	Varchar2	20	-	-	-	✓	-	-
	<u>AGE</u>	Number	-	3	0	-	✓	-	-
	<u>PHONE_NUMBER</u>	Number	-	11	0	-	-	-	-
1 - 4									

```
CREATE TABLE CARSHOP(carshop_id NUMBER(5) CONSTRAINT CARSHOP_PK PRIMARY KEY,  
    carshop_name VARCHAR2(20),  
    ADDRESS VARCHAR(20),  
    O_id NUMBER(5) CONSTRAINT CARSHOP_FK REFERENCES OWNER(O_id) NOT NULL);
```

DESCRIBE CARSHOP;

[Results](#) [Explain](#) [Describe](#) [Saved SQL](#) [History](#)Object Type **TABLE** Object **CARSHOP**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
CARSHOP	CARSHOP_ID	Number	-	5	0	1	-	-	-
	CARSHOP_NAME	Varchar2	20	-	-	-	✓	-	-
	ADDRESS	Varchar2	20	-	-	-	✓	-	-
	O_ID	Number	-	5	0	-	-	-	-

1 - 4

DESCRIBE CUSTOMER_CAR:

Object Type **TABLE** Object **CUSTOMER_CAR**

1 - 3

DESCRIBE SALARY:

Object Type **TABLE** Object **SALARY**

1 - 4


```
CREATE TABLE SELLER_CAR(sc_id NUMBER(5) CONSTRAINT SELLER_CAR_PK PRIMARY KEY,  
                        seller_id NUMBER(5) CONSTRAINT SELLER_CAR1_FK REFERENCES SELLER(seller_id) NOT NULL,  
                        car_id NUMBER(5) CONSTRAINT SELLER_CAR2_FK REFERENCES CAR(car_id) NOT NULL);
```

```
DESCRIBE SELLER_CAR;
```

[Results](#) [Explain](#) [Describe](#) [Saved SQL](#) [History](#)

Object Type **TABLE** Object **SELLER_CAR**

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
SELLER_CAR	<u>SC_ID</u>	Number	-	5	0	1	-	-	-
	<u>SELLER_ID</u>	Number	-	5	0	-	-	-	-
	<u>CAR_ID</u>	Number	-	5	0	-	-	-	-
1 - 3									

DATA INSERTION

```

INSERT INTO OWNER(O_id,O_name,age,phone number) VALUES(1001,'SHAYEKA SULTANA',25,01971318359);
INSERT INTO OWNER(O_id,O_name,age,phone number) VALUES(1002,'JAWAD HASSAN',20,01971315983);
INSERT INTO OWNER(O_id,O_name,age,phone number) VALUES(1003,'JAHID HASSAN',27,01771418251);
INSERT INTO OWNER(O_id,O_name,age,phone number) VALUES(1004,'RAISA AKTER',26,01682028756);
INSERT INTO OWNER(O_id,O_name,age,phone number) VALUES(1005,'SAMIN RAHMAN',30,01690318357);

```

```
SELECT * FROM OWNER;
```

Results Explain Describe Saved SQL History

O_ID	O_NAME	AGE	PHONE_NUMBER
1001	SHAYEKA SULTANA	25	1971318359
1002	JAWAD HASSAN	20	1971315983
1003	JAHID HASSAN	27	1771418251
1004	RAISAAKTER	26	1682028756
1005	SAMIN RAHMAN	30	1690318357

```

INSERT INTO CARSHOP(carshop_id,carshop_name,address,O_id) VALUES(2001,'SULTANAS CAR','88/1-DHANMONDI',1001);
INSERT INTO CARSHOP(carshop_id,carshop_name,address,O_id) VALUES(2002,'SELECTION CAR','2A/1-GHULSHAN',1001);
INSERT INTO CARSHOP(carshop_id,carshop_name,address,O_id) VALUES(2003,'CAR KINGDOM','A/417-TEJGAON',1002);
INSERT INTO CARSHOP(carshop_id,carshop_name,address,O_id) VALUES(2004,'ACE AUTOS LMTD','73/1-GREEN ROAD',1003);
INSERT INTO CARSHOP(carshop_id,carshop_name,address,O_id) VALUES(2005,'AB CARSHOP LMTD','I/A-MIRPUR',1004);
INSERT INTO CARSHOP(carshop_id,carshop_name,address,O_id) VALUES(2006,'AJ MOTORS','2/1-JATRABARI',1005);

```

```
SELECT * FROM CARSHOP;
```

Results Explain Describe Saved SQL History

CARSHOP_ID	CARSHOP_NAME	ADDRESS	O_ID
2001	SULTANAS CAR	88/1-DHANMONDI	1001
2002	SELECTION CAR	2A/1-GHULSHAN	1001
2003	CAR KINGDOM	A/417-TEJGAON	1002
2004	ACE AUTOS LMTD	73/1-GREEN ROAD	1003
2005	AB CARSHOP LMTD	I/A-MIRPUR	1004
2006	AJ MOTORS	2/1-JATRABARI	1005

```

INSERT INTO CAR(car_id,car_model,car_make,car_color,car_price,carshop_id) VALUES(3001,'EVOQUE','LAND ROVER','RED',20000000,2001);
INSERT INTO CAR(car_id,car_model,car_make,car_color,car_price,carshop_id) VALUES(3002,'BENTAYGA','BENTLEY','RED',300000000,2001);
INSERT INTO CAR(car_id,car_model,car_make,car_color,car_price,carshop_id) VALUES(3003,'X FIELDER','TOYOTA','WHITE',1500000,2001);
INSERT INTO CAR(car_id,car_model,car_make,car_color,car_price,carshop_id) VALUES(3004,'CR-V','HONDA','BLACK',3000000,2002);
INSERT INTO CAR(car_id,car_model,car_make,car_color,car_price,carshop_id) VALUES(3005,'X-TRAIL','NISSAN','BLUE',6000000,2003);
INSERT INTO CAR(car_id,car_model,car_make,car_color,car_price,carshop_id) VALUES(3006,'BLUEBIRD','NISSAN','BLACK',1200000,2004);
INSERT INTO CAR(car_id,car_model,car_make,car_color,car_price,carshop_id) VALUES(3007,'DEFENDER','LAND ROVER','RED',15000000,2005);
INSERT INTO CAR(car_id,car_model,car_make,car_color,car_price,carshop_id) VALUES(3008,'SONOTA','HYUNDAI','WHITE',5000000,2006);

```

```
SELECT * FROM CAR;
```

Results Explain Describe Saved SQL History

CAR_ID	CAR_MODEL	CAR_MAKE	CAR_COLOR	CAR_PRICE	CARSHOP_ID
3001	EVOQUE	LAND ROVER	RED	20000000	2001
3002	BENTAYGA	BENTLEY	RED	300000000	2001
3003	X FIELDER	TOYOTA	WHITE	1500000	2001
3004	CR-V	HONDA	BLACK	3000000	2002
3005	X-TRAIL	NISSAN	BLUE	6000000	2003
3006	BLUEBIRD	NISSAN	BLACK	1200000	2004
3007	DEFENDER	LAND ROVER	RED	15000000	2005
3008	SONOTA	HYUNDAI	WHITE	5000000	2006

```

INSERT INTO CUSTOMER(cus_id,cus_name,age,phone_number) VALUES(4001,'NURUZZAMAN',25,01758032081);
INSERT INTO CUSTOMER(cus_id,cus_name,age,phone_number) VALUES(4002,'ABIR RAHMAN',26,01681028856);
INSERT INTO CUSTOMER(cus_id,cus_name,age,phone_number) VALUES(4003,'RUPOK',35,01956032082);
INSERT INTO CUSTOMER(cus_id,cus_name,age,phone_number) VALUES(4004,'SAMIN RAHMAN',25,01958032071);
INSERT INTO CUSTOMER(cus_id,cus_name,age,phone_number) VALUES(4005,'SINTHIA RAHMAN',27,01358032089);
INSERT INTO CUSTOMER(cus_id,cus_name,age,phone_number) VALUES(4006,'TANZILA',29,01358034071);

```

```
SELECT * FROM CUSTOMER;
```

Results Explain Describe Saved SQL History

CUS_ID	CUS_NAME	AGE	PHONE_NUMBER
4001	NURUZZAMAN	25	1758032081
4002	ABIR RAHMAN	26	1681028856
4003	RUPOK	35	1956032082
4004	SAMIN RAHMAN	25	1958032071
4005	SINTHIA RAHMAN	27	1358032089
4006	TANZILA	29	1358034071

```

INSERT INTO CUSTOMER_CAR(cc_id,car_id,cus_id) VALUES(5001,3001,4002);
INSERT INTO CUSTOMER_CAR(cc_id,car_id,cus_id) VALUES(5002,3002,4001);
INSERT INTO CUSTOMER_CAR(cc_id,car_id,cus_id) VALUES(5003,3003,4001);
INSERT INTO CUSTOMER_CAR(cc_id,car_id,cus_id) VALUES(5004,3005,4004);
INSERT INTO CUSTOMER_CAR(cc_id,car_id,cus_id) VALUES(5005,3008,4005);
INSERT INTO CUSTOMER_CAR(cc_id,car_id,cus_id) VALUES(5006,3004,4005);
INSERT INTO CUSTOMER_CAR(cc_id,car_id,cus_id) VALUES(5007,3006,4003);
INSERT INTO CUSTOMER_CAR(cc_id,car_id,cus_id) VALUES(5008,3007,4006);

```

```

SELECT * FROM CUSTOMER_CAR;

```

Results Explain Describe Saved SQL History

CC_ID	CAR_ID	CUS_ID
5001	3001	4002
5002	3002	4001
5003	3003	4001
5004	3005	4004
5005	3008	4005
5006	3004	4005
5007	3006	4003
5008	3007	4006

```

INSERT INTO SALARY(sal_id,sal_amount,sal_date,o_id) VALUES(101,15000,TO_DATE('02-12-22','DD-MM-YYYY'),1001);
INSERT INTO SALARY(sal_id,sal_amount,sal_date,o_id) VALUES(102,20000,TO_DATE('02-12-22','DD-MM-YYYY'),1002);
INSERT INTO SALARY(sal_id,sal_amount,sal_date,o_id) VALUES(103,30000,TO_DATE('04-12-22','DD-MM-YYYY'),1003);
INSERT INTO SALARY(sal_id,sal_amount,sal_date,o_id) VALUES(104,10000,TO_DATE('01-12-22','DD-MM-YYYY'),1004);
INSERT INTO SALARY(sal_id,sal_amount,sal_date,o_id) VALUES(105,40000,TO_DATE('07-12-22','DD-MM-YYYY'),1005);

```

```

SELECT * FROM SALARY;

```

Results Explain Describe Saved SQL History

SAL_ID	SAL_AMOUNT	SAL_DATE	O_ID
101	15000	02-DEC-22	1001
102	20000	02-DEC-22	1002
103	30000	04-DEC-22	1003
104	10000	01-DEC-22	1004
105	40000	07-DEC-22	1005

```

INSERT INTO EMPLOYEE(e_id,e_name,salary_amount,hiredate,age,carshop_id) VALUES(6001,'MD ABIR',40000,TO_DATE('29-12-19','DD-MM-YYYY'),20,2001);
INSERT INTO EMPLOYEE(e_id,e_name,salary_amount,hiredate,age,carshop_id) VALUES(6002,'MD SAMIN',30000,TO_DATE('03-07-20','DD-MM-YYYY'),22,2001);
INSERT INTO EMPLOYEE(e_id,e_name,salary_amount,hiredate,age,carshop_id) VALUES(6003,'MD JAHID',20000,TO_DATE('20-02-19','DD-MM-YYYY'),24,2001);
INSERT INTO EMPLOYEE(e_id,e_name,salary_amount,hiredate,age,carshop_id) VALUES(6004,'KAWSAR SARKAR',10000,TO_DATE('01-11-19','DD-MM-YYYY'),21,2002);
INSERT INTO EMPLOYEE(e_id,e_name,salary_amount,hiredate,age,carshop_id) VALUES(6005,'MD MAHI',15000,TO_DATE('04-02-19','DD-MM-YYYY'),22,2002);
INSERT INTO EMPLOYEE(e_id,e_name,salary_amount,hiredate,age,carshop_id) VALUES(6006,'MD IMAM',40000,TO_DATE('05-01-18','DD-MM-YYYY'),20,2003);
INSERT INTO EMPLOYEE(e_id,e_name,salary_amount,hiredate,age,carshop_id) VALUES(6007,'MD RAFI',30000,TO_DATE('06-12-19','DD-MM-YYYY'),29,2003);
INSERT INTO EMPLOYEE(e_id,e_name,salary_amount,hiredate,age,carshop_id) VALUES(6008,'MD EKRAM',40000,TO_DATE('29-12-19','DD-MM-YYYY'),20,2004);
INSERT INTO EMPLOYEE(e_id,e_name,salary_amount,hiredate,age,carshop_id) VALUES(6009,'MD FAYSAL',20000,TO_DATE('09-12-19','DD-MM-YYYY'),20,2004);
INSERT INTO EMPLOYEE(e_id,e_name,salary_amount,hiredate,age,carshop_id) VALUES(6010,'MD SAJIB',40000,TO_DATE('02-12-22','DD-MM-YYYY'),28,2005);
INSERT INTO EMPLOYEE(e_id,e_name,salary_amount,hiredate,age,carshop_id) VALUES(6011,'MD RIAZ',15000,TO_DATE('10-12-22','DD-MM-YYYY'),21,2005);
INSERT INTO EMPLOYEE(e_id,e_name,salary_amount,hiredate,age,carshop_id) VALUES(6012,'MD SHORIF',20000,TO_DATE('02-12-21','DD-MM-YYYY'),24,2006);
INSERT INTO EMPLOYEE(e_id,e_name,salary_amount,hiredate,age,carshop_id) VALUES(6013,'MD RAYHAN',20000,TO_DATE('02-11-20','DD-MM-YYYY'),24,2006);

```

```
SELECT * FROM EMPLOYEE;
```

Results [Explain](#) [Describe](#) [Saved SQL](#) [History](#)

E_ID	E_NAME	SALARY_AMOUNT	HIREDATE	AGE	CARSHOP_ID
6001	MD ABIR	40000	29-DEC-19	20	2001
6002	MD SAMIN	30000	03-JUL-20	22	2001
6003	MD JAHID	20000	20-FEB-19	24	2001
6004	KAWSAR SARKAR	10000	01-NOV-19	21	2002
6005	MD MAHI	15000	04-FEB-19	22	2002
6006	MD IMAM	40000	05-JAN-18	20	2003
6007	MD RAFI	30000	06-DEC-19	29	2003
6008	MD EKRAM	40000	29-DEC-19	20	2004
6009	MD FAYSAL	20000	09-DEC-19	20	2004
6010	MD SAJIB	40000	02-DEC-22	28	2005
6011	MD RIAZ	15000	10-DEC-22	21	2005
6012	MD SHORIF	20000	02-DEC-21	24	2006
6013	MD RAYHAN	20000	02-NOV-20	24	2006

```

INSERT INTO EMPLOYEE_SALARY(ems_id,e_id,sal_id) VALUES(7001,6001,105);
INSERT INTO EMPLOYEE_SALARY(ems_id,e_id,sal_id) VALUES(7002,6002,103);
INSERT INTO EMPLOYEE_SALARY(ems_id,e_id,sal_id) VALUES(7003,6003,102);
INSERT INTO EMPLOYEE_SALARY(ems_id,e_id,sal_id) VALUES(7004,6004,104);
INSERT INTO EMPLOYEE_SALARY(ems_id,e_id,sal_id) VALUES(7005,6005,101);
INSERT INTO EMPLOYEE_SALARY(ems_id,e_id,sal_id) VALUES(7006,6006,105);
INSERT INTO EMPLOYEE_SALARY(ems_id,e_id,sal_id) VALUES(7007,6007,103);
INSERT INTO EMPLOYEE_SALARY(ems_id,e_id,sal_id) VALUES(7008,6008,105);
INSERT INTO EMPLOYEE_SALARY(ems_id,e_id,sal_id) VALUES(7009,6009,102);
INSERT INTO EMPLOYEE_SALARY(ems_id,e_id,sal_id) VALUES(7010,6010,105);

```

```
SELECT * FROM EMPLOYEE_SALARY;
```

Results Explain Describe Saved SQL History

EMS_ID	E_ID	SAL_ID
7001	6001	105
7002	6002	103
7003	6003	102
7004	6004	104
7005	6005	101
7006	6006	105
7007	6007	103
7008	6008	105
7009	6009	102
7010	6010	105

10 rows returned in 0.00 seconds

[CSV Export](#)

```

INSERT INTO SELLER(seller_id,seller_name,salary_amount,age,hire_date,e_id) VALUES(8001,'MD ABIR',40000,20,TO_DATE('29-12-19','DD-MM-YYYY'),6001);
INSERT INTO SELLER(seller_id,seller_name,salary_amount,age,hire_date,e_id) VALUES(8002,'MD SAMIN',30000,22,TO_DATE('03-07-20','DD-MM-YYYY'),6002);
INSERT INTO SELLER(seller_id,seller_name,salary_amount,age,hire_date,e_id) VALUES(8003,'KAWSAR SARKAR',10000,20,TO_DATE('01-11-19','DD-MM-YYYY'),6004);
INSERT INTO SELLER(seller_id,seller_name,salary_amount,age,hire_date,e_id) VALUES(8004,'MD IMAM',40000,20,TO_DATE('05-01-18','DD-MM-YYYY'),6006);
INSERT INTO SELLER(seller_id,seller_name,salary_amount,age,hire_date,e_id) VALUES(8005,'MD EKRAM',40000,20,TO_DATE('29-12-19','DD-MM-YYYY'),6008);

```

```
SELECT * FROM SELLER;
```

Results Explain Describe Saved SQL History

SELLER_ID	SELLER_NAME	SALARY_AMOUNT	AGE	HIRE_DATE	E_ID
8001	MD ABIR	40000	20	29-DEC-19	6001
8002	MD SAMIN	30000	22	03-JUL-20	6002
8003	KAWSAR SARKAR	10000	20	01-NOV-19	6004
8004	MD IMAM	40000	20	05-JAN-18	6006
8005	MD EKRAM	40000	20	29-DEC-19	6008


```

INSERT INTO CASHIER(cashier_id,cashier_name,salary_amount,age,hire_date,e_id) VALUES(9001,'MD JAHID',20000,24,TO_DATE('20-02-19','DD-MM-YYYY'),6003);
INSERT INTO CASHIER(cashier_id,cashier_name,salary_amount,age,hire_date,e_id) VALUES(9002,'MD MAHI',15000,22,TO_DATE('04-02-19','DD-MM-YYYY'),6005);
INSERT INTO CASHIER(cashier_id,cashier_name,salary_amount,age,hire_date,e_id) VALUES(9003,'MD FAYSAL',20000,20,TO_DATE('09-12-19','DD-MM-YYYY'),6009);
INSERT INTO CASHIER(cashier_id,cashier_name,salary_amount,age,hire_date,e_id) VALUES(9004,'MD RIAZ',15000,21,TO_DATE('10-12-22','DD-MM-YYYY'),6011);
INSERT INTO CASHIER(cashier_id,cashier_name,salary_amount,age,hire_date,e_id) VALUES(9005,'MD RAFI',30000,29,TO_DATE('06-12-19','DD-MM-YYYY'),6007);

```

```
SELECT * FROM CASHIER;
```

Results Explain Describe Saved SQL History

CASHIER_ID	CASHIER_NAME	SALARY_AMOUNT	AGE	HIRE_DATE	E_ID
9001	MD JAHID	20000	24	20-FEB-19	6003
9002	MD MAHI	15000	22	04-FEB-19	6005
9003	MD FAYSAL	20000	20	09-DEC-19	6009
9004	MD RIAZ	15000	21	10-DEC-22	6011
9005	MD RAFI	30000	29	06-DEC-19	6007

```

INSERT INTO ORDERS(ord_id,ord_date,cus_id) VALUES(1,TO_DATE('25-12-22','DD-MM-YYYY'),4001);
INSERT INTO ORDERS(ord_id,ord_date,cus_id) VALUES(2,TO_DATE('26-12-22','DD-MM-YYYY'),4002);
INSERT INTO ORDERS(ord_id,ord_date,cus_id) VALUES(3,TO_DATE('24-12-22','DD-MM-YYYY'),4003);
INSERT INTO ORDERS(ord_id,ord_date,cus_id) VALUES(4,TO_DATE('21-12-22','DD-MM-YYYY'),4004);
INSERT INTO ORDERS(ord_id,ord_date,cus_id) VALUES(5,TO_DATE('01-12-22','DD-MM-YYYY'),4005);
INSERT INTO ORDERS(ord_id,ord_date,cus_id) VALUES(6,TO_DATE('25-12-22','DD-MM-YYYY'),4006);

```

```
SELECT * FROM ORDERS;
```

Results Explain Describe Saved SQL History

ORD_ID	ORD_DATE	CUS_ID
1	25-DEC-22	4001
2	26-DEC-22	4002
3	24-DEC-22	4003
4	21-DEC-22	4004
5	01-DEC-22	4005
6	25-DEC-22	4006

6 rows returned in 0.00 seconds

[CSV Export](#)

```

INSERT INTO PAYMENT(payment_id,payment_date,amount,cus_id) VALUES(1,TO_DATE('25-12-22','DD-MM-YYYY'),100000,4001);
INSERT INTO PAYMENT(payment_id,payment_date,amount,cus_id) VALUES(2,TO_DATE('25-12-22','DD-MM-YYYY'),100000,4002);
INSERT INTO PAYMENT(payment_id,payment_date,amount,cus_id) VALUES(3,TO_DATE('25-12-22','DD-MM-YYYY'),500000,4004);
INSERT INTO PAYMENT(payment_id,payment_date,amount,cus_id) VALUES(4,TO_DATE('26-12-22','DD-MM-YYYY'),3500000,4005);
INSERT INTO PAYMENT(payment_id,payment_date,amount,cus_id) VALUES(5,TO_DATE('27-12-22','DD-MM-YYYY'),200000,4003);

```

```
SELECT * FROM PAYMENT;
```

Results Explain Describe Saved SQL History

PAYMENT_ID	PAYMENT_DATE	AMOUNT	CUS_ID
1	25-DEC-22	1000000	4001
2	25-DEC-22	100000	4002
3	25-DEC-22	500000	4004
4	26-DEC-22	3500000	4005
5	27-DEC-22	200000	4003

5 rows returned in 0.00 seconds

[CSV Export](#)

```

INSERT INTO CASHIER_PAYMENT(cp_id,cashier_id,payment_id) VALUES(201,9001,1);
INSERT INTO CASHIER_PAYMENT(cp_id,cashier_id,payment_id) VALUES(202,9002,2);
INSERT INTO CASHIER_PAYMENT(cp_id,cashier_id,payment_id) VALUES(203,9003,3);
INSERT INTO CASHIER_PAYMENT(cp_id,cashier_id,payment_id) VALUES(204,9004,4);
INSERT INTO CASHIER_PAYMENT(cp_id,cashier_id,payment_id) VALUES(205,9005,5);

```

```
SELECT * FROM CASHIER_PAYMENT;
```

Results Explain Describe Saved SQL History

CP_ID	CASHIER_ID	PAYMENT_ID
201	9001	1
202	9002	2
203	9003	3
204	9004	4
205	9005	5

5 rows returned in 0.00 seconds

[CSV Export](#)

```
INSERT INTO SELLER_ORDER(so_id,seller_id,ord_id) VALUES(301,8001,3);  
INSERT INTO SELLER_ORDER(so_id,seller_id,ord_id) VALUES(302,8003,1);  
INSERT INTO SELLER_ORDER(so_id,seller_id,ord_id) VALUES(303,8004,5);  
INSERT INTO SELLER_ORDER(so_id,seller_id,ord_id) VALUES(304,8001,4);  
INSERT INTO SELLER_ORDER(so_id,seller_id,ord_id) VALUES(305,8005,2);
```

```
SELECT * FROM SELLER_ORDER;
```

Results Explain Describe Saved SQL History

SO_ID	SELLER_ID	ORD_ID
301	8001	3
302	8003	1
303	8004	5
304	8001	4
305	8005	2

5 rows returned in 0.00 seconds

[CSV Export](#)

```
INSERT INTO SELLER_CAR(sc_id,seller_id,car_id) VALUES(401,8001,3003);  
INSERT INTO SELLER_CAR(sc_id,seller_id,car_id) VALUES(402,8002,3001);  
INSERT INTO SELLER_CAR(sc_id,seller_id,car_id) VALUES(403,8003,3005);  
INSERT INTO SELLER_CAR(sc_id,seller_id,car_id) VALUES(404,8004,3004);  
INSERT INTO SELLER_CAR(sc_id,seller_id,car_id) VALUES(405,8005,3008);
```

```
SELECT * FROM SELLER_CAR;
```

Results Explain Describe Saved SQL History

SC_ID	SELLER_ID	CAR_ID
401	8001	3003
402	8002	3001
403	8003	3005
404	8004	3004
405	8005	3008

5 rows returned in 0.00 seconds

[CSV Export](#)

VIEW

1.CREATE A VIEW NAMED CAR_DETAILS AND SHOW ALL INFORMATION OF CAR WHERE CAR_PRICE IS MORE THAN 5500000;

```
CREATE VIEW CAR_DETAILS AS SELECT * FROM CAR WHERE CAR_PRICE>5500000;
```

Results	Explain	Describe	Saved SQL	History
----------------	---------	----------	-----------	---------

View created.

0.00 seconds

```
CREATE VIEW CAR_DETAILS AS SELECT * FROM CAR WHERE CAR_PRICE>5500000;
```

```
SELECT * FROM CAR_DETAILS;
```

Results Explain Describe Saved SQL History

CAR_ID	CAR_MODEL	CAR_MAKE	CAR_COLOR	CAR_PRICE	CARSHOP_ID
3001	EVOQUE	LAND ROVER	RED	20000000	2001
3002	BENTAYGA	BENTLEY	RED	300000000	2001
3005	X-TRAIL	NISSAN	BLUE	6000000	2003
3007	DEFENDER	LAND ROVER	RED	15000000	2005

2.CREATE A VIEW NAMED SELLER_SELL_INFO WHERE HOW MANY SELLER SELLS CAR.

ANS:

```
CREATE VIEW SELLER_SELL_INFO AS SELECT COUNT(SELLER_ID) NUMBER_OF_SELLER FROM SELLER_CAR;
```

Results Explain Describe Saved SQL History

View created.

```
CREATE VIEW SELLER_SELL_INFO AS SELECT COUNT(SELLER_ID) NUMBER_OF_SELLER FROM SELLER_CAR;  
SELECT * FROM SELLER_SELL_INFO;
```

Results Explain Describe Saved SQL History

NUMBER_OF_SELLER

6

1 rows returned in 0.02 seconds

[CSV Export](#)

3,CREATE A VIEW NAMED EMPLOYEE_DETAILS WHERE EMPLOYEE WORKS IN A CARSHOP AND CARSHOP_ID IS 2001;

ANS:

```
CREATE VIEW EMPLOYEE_DETAILS AS SELECT E_ID,E_NAME,HIREDATE FROM EMPLOYEE WHERE CARSHOP_ID=2001;
```

Results Explain Describe Saved SQL History

View created.

0.02 seconds

```
CREATE VIEW EMPLOYEE_DETAILS AS SELECT E_ID,E_NAME,HIREDATE FROM EMPLOYEE WHERE CARSHOP_ID=2001;
```

```
SELECT * FROM EMPLOYEE_DETAILS;
```

Results Explain Describe Saved SQL History

E_ID	E_NAME	HIREDATE
6001	MD ABIR	29-DEC-19
6002	MD SAMIN	03-JUL-20
6003	MD JAHID	20-FEB-19

3 rows returned in 0.00 seconds

[CSV Export](#)

QUERY

GROUP FUNCTION:

1. Write a query to show the Maximum salary of the employees.

```
SELECT MAX(SALARY_AMOUNT) SALARY FROM EMPLOYEE;
```

Results	Explain	Describe	Saved SQL	History
<div><div>SALARY</div><div>40000</div></div>				

2. Write a query to show avg salary of the employees;

```
SELECT AVG(SALARY_AMOUNT) AVERAGE_SALARY FROM EMPLOYEE;
```

Results Explain Describe Saved SQL History

AVERAGE_SALARY
26153.8461538461538461538461538462

SUBQUERY:

3. Write a query to show the seller_id ,salary of all the sellers where salary is greater than average salary.

```
SELECT SELLER_ID,SALARY_AMOUNT FROM SELLER WHERE SALARY_AMOUNT>(SELECT AVG(SALARY_AMOUNT) FROM SELLER);
```

Results Explain Describe Saved SQL History

SELLER_ID	SALARY_AMOUNT
8001	40000
8004	40000
8005	40000

4. Write a query to show all the customer_id where customer paid less than avg amount of payment.

```
SELECT CUS_ID FROM PAYMENT WHERE AMOUNT < (SELECT AVG(AMOUNT) FROM PAYMENT);
```

Results Explain Describe Saved SQL History

CUS_ID
4001
4002
4004
4003

4 rows returned in 0.00 seconds

[CSV Export](#)

JOINING:

5. Show the cashier_id and seller_id where cashier's salary is less than seller's salary;

```
SELECT C.CASHIER_ID, S.SELLER_ID FROM CASHIER C, SELLER S WHERE C.SALARY_AMOUNT<S.SALARY_AMOUNT;
```

Results Explain Describe Saved SQL History

CASHIER_ID	SELLER_ID
9001	8001
9001	8002
9001	8004
9001	8005
9002	8001
9002	8002
9002	8004
9002	8005
9003	8001
9003	8002
9003	8004
9003	8005
9004	8001
9004	8002
9004	8004
9004	8005
9005	8001
9005	8004
9005	8005

6. Write a sql to show customer_id where customer ordered and also done the payment;

```
SELECT ORDERS.CUS_ID ORDERED, PAYMENT.CUS_ID PAYMENT FROM ORDERS, PAYMENT WHERE ORDERS.CUS_ID=PAYMENT.CUS_ID;
```

Results Explain Describe Saved SQL History

ORDERED	PAYMENT
4001	4001
4002	4002
4003	4003
4004	4004
4005	4005

SIMPLE QUERY:

7. Write a query to show all the car_id whose color is red;

```
SELECT CAR_ID FROM CAR WHERE CAR_COLOR='RED';
```

Results Explain Describe Saved SQL History

CAR_ID
3001
3002
3007