NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

DBMS CA2 PROJECT

Topic : ONLINE STORE

INTRODUCTION:

The following database is based on an online store which contains information about products , customers and order related details.
In this database there are 9 entities along with their associative attributes. Also some queries are performed on the database containing aggregate functions with group by , joins , update , sorting , select using where clause , create views ,subquery and drop commands.

NAME :ALICE DURGE
ROLL NO : 5840
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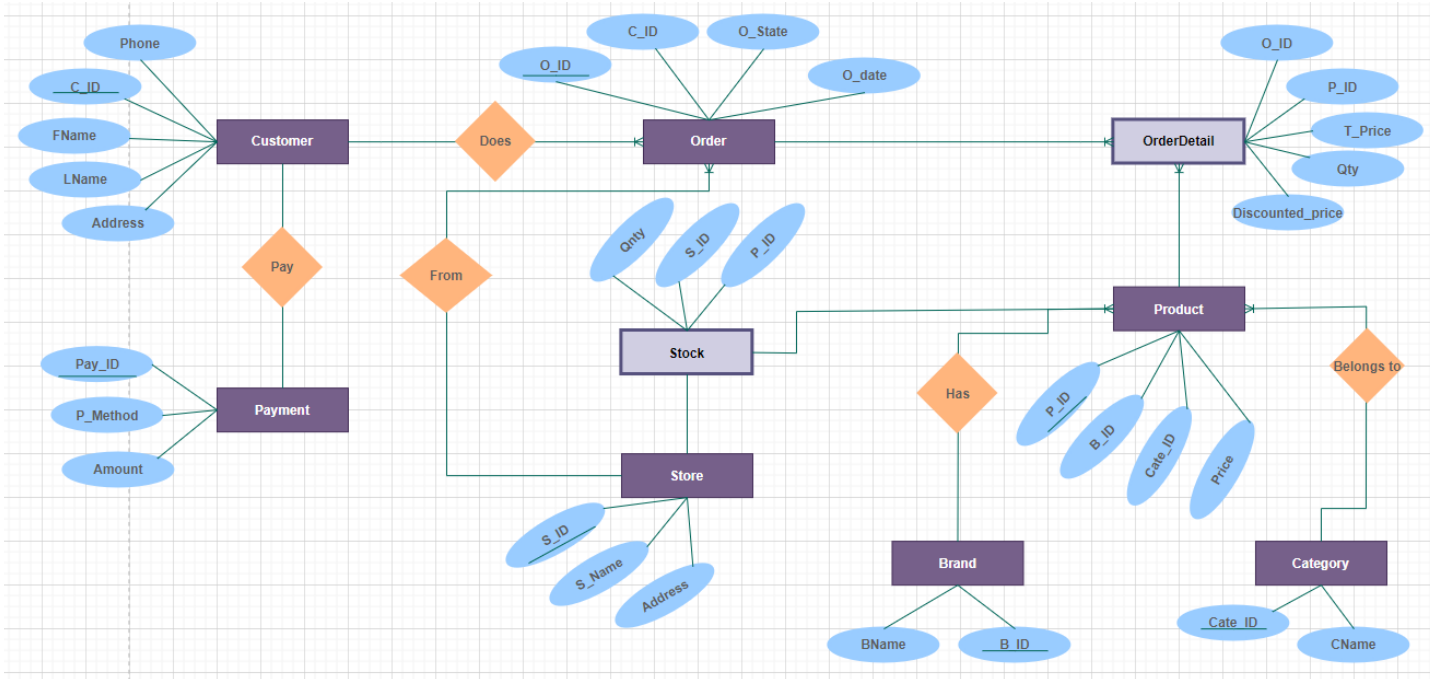
E–R DIAGRAM



ONLINE STORE DIAGRAM LINK:

https://drive.google.com/file/d/1eslvGjCIF3UMcnQxQ0o8mR5khHW8MMqd/view?usp=sharing

ONLINE STORE DATASET LINK:

https://docs.google.com/spreadsheets/d/1dxn9ZoDkCuC-Q-8-y_uuaGVJ5-T2zMA40HqVixQ3mDw/edit?usp=sharing

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

CREATION OF TABLES IN DATABASE:

CATEGORY:

```
SQL> create table category
  2  (cate_id varchar(4) constraint cat_prikey Primary key constraint ckcate_id check(cate_id like
'C%'),
  3  cname char(18) not null);

Table created.

SQL> insert into category
  2  values('C001','clothes');

1 row created.

SQL> insert into category
  2  values('C002','laptop');

1 row created.

SQL> insert into category
  2  values('C003','mobiles');

1 row created.

SQL> insert into category
  2  values('C004','accessories');

1 row created.

SQL> insert into category
  2  values('C005','home_appliances');

1 row created.

SQL> insert into category
  2  values('C006','others');

1 row created.

SQL> select * from category;
```

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

```
CATE CNAME
---- ----------
C001 clothes
C002 laptop
C003 mobiles
C004 accessories
C005 home_appliances
C006 others

6 rows selected.
```

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

BRAND:

```
SQL> create table brand
  2  (b_id varchar(6) constraint brnd_prikey Primary key constraint ckb_id check(b_id like 'B%'),
  3  bname char(18) not null);

Table created.

SQL> insert into brand
  2  values('B00101','urbanic');

1 row created.

SQL> insert into brand
  2  values('B00102','max_fashion');

1 row created.

SQL> insert into brand
  2  values('B00103','lenovo');

1 row created.

SQL> insert into brand
  2  values('B00104','dell');

1 row created.

SQL> insert into brand
  2  values('B00105','realme');

1 row created.

SQL> insert into brand
  2  values('B00106','apple');

1 row created.

SQL> insert into brand
  2  values('B00107','voyla');
```

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

```
1 row created.

SQL> insert into brand
  2  values('B00108','titan');

1 row created.

SQL> insert into brand
  2  values('B00109','jjwood');

1 row created.


SQL> insert into brand
  2  values('B00110','home_decor');

1 row created.

SQL> insert into brand
  2  values('B00111','himalaya');

1 row created.

SQL> insert into brand
  2  values('B00112','garnier');

1 row created.

SQL> select * from brand;

B_ID   BNAME
------ ------------------
B00101 urbanic
B00102 max_fashion
B00103 lenovo
B00104 dell
B00105 realme
B00106 apple
B00107 voyla
B00108 titan
```

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

B00109 jjwood
B00110 home_decor
B00111 himalaya

B_ID BNAME
------ ------------------
B00112 garnier

12 rows selected.

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

PRODUCT:

```
SQL> create table product
  2  (p_id varchar(6) constraint prdct_prikey Primary key constraint ckprdct_id check(p_id like
'P%'),
  3  b_id varchar(6) constraint chkb_id check(b_id like 'B%') ,
  4  cate_id varchar(4) constraint chkcate_id check(cate_id like 'C%'),
  5  price number constraint chkprice check(price>0),
  6  foreign key (b_id) references brand(b_id),
  7  foreign key (cate_id) references category(cate_id));

Table created.

SQL> insert into product
  2  values('P00001','B00101','C001',500);

1 row created.

SQL> insert into product
  2  values('P00002','B00101','C001',400);

1 row created.

SQL> insert into product
  2  values('P00003','B00102','C001',300);

1 row created.

SQL> insert into product
  2  values('P00004','B00102','C001',700);

1 row created.

SQL> insert into product
  2  values('P00005','B00103','C002',50000);

1 row created.

SQL> insert into product
  2  values('P00006','B00103','C002',45000);
```

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

```
1 row created.

SQL> insert into product
  2  values('P00007','B00104','C002',40000);

1 row created.

SQL> insert into product
  2  values('P00008','B00104','C002',35000);

1 row created.

SQL> insert into product
  2  values('P00009','B00105','C003',10000);

1 row created.

SQL> insert into product
  2  values('P00010','B00105','C003',9000);

1 row created.

SQL> insert into product
  2  values('P00011','B00106','C003',47000);

1 row created.

SQL> insert into product
  2  values('P00012','B00106','C003',48000);

1 row created.

SQL> insert into product
  2  values('P00013','B00107','C004',1250);

1 row created.

SQL> insert into product
  2  values('P00014','B00107','C004',1500);
```

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

```
1 row created.

SQL> insert into product
  2  values('P00015','B00108','C004',1700);

1 row created.

SQL> insert into product
  2  values('P00016','B00108','C004',2000);

1 row created.

SQL> insert into product
  2  values('P00017','B00109','C005',5000);

1 row created.

SQL> insert into product
  2  values('P00018','B00109','C005',10000);

1 row created.

SQL> insert into product
  2  values('P00019','B00110','C005',750);

1 row created.

SQL> insert into product
  2  values('P00020','B00110','C005',900);

1 row created.

SQL> insert into product
  2  values('P00021','B00111','C006',50);

1 row created.

SQL> insert into product
  2  values('P00022','B00111','C006',75);
```

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

```
1 row created.

SQL> insert into product
  2  values('P00023','B00112','C006',90);

1 row created.

SQL> insert into product
  2  values('P00024','B00112','C006',150);

1 row created.

SQL> select * from product;

P_ID   B_ID   CATE      PRICE
------ ------ ---- ----------
P00001 B00101 C001        500
P00002 B00101 C001        400
P00003 B00102 C001        300
P00004 B00102 C001        700
P00005 B00103 C002      50000
P00006 B00103 C002      45000
P00007 B00104 C002      40000
P00008 B00104 C002      35000
P00009 B00105 C003      10000
P00010 B00105 C003       9000
P00011 B00106 C003      47000

P_ID   B_ID   CATE      PRICE
------ ------ ---- ----------
P00012 B00106 C003      48000
P00013 B00107 C004       1250
P00014 B00107 C004       1500
P00015 B00108 C004       1700
P00016 B00108 C004       2000
P00017 B00109 C005       5000
P00018 B00109 C005      10000
P00019 B00110 C005        750
P00020 B00110 C005        900
P00021 B00111 C006         50
```

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

P00022 B00111 C006 75

P_ID B_ID CATE PRICE
------ ------ ---- ----------
P00023 B00112 C006 90
P00024 B00112 C006 150

24 rows selected.

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

STORE:

```
SQL> create table store
  2  (s_id varchar(4) constraint cks_id_prikey primary key constraint chks_id check(s_id
like'S%'),
  3  sname char(15) not null,
  4  saddr varchar(20) not null);

Table created.

SQL>insert into store
 2  values('S101','clothe','Tamil Nadu');

1 row created.

SQL> insert into store
  2  values('S102','laptops','Gujarat');

1 row created.

SQL> insert into store
  2  values('S103','mobiles','Delhi');

1 row created.

SQL> insert into store
  2  values('S104','electronics','Maharashtra');

1 row created.

SQL> insert into store
  2  values('S105','jewelry','Kerala');

1 row created.

SQL> insert into store
  2  values('S106','facials','Himachal Pradesh');

1 row created.

SQL> select * from store;
```

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

S_ID	SNAME	SADDR
S101	clothe	Tamil Nadu
S102	laptops	Gujarat
S103	mobiles	Delhi
S104	electronics	Maharashtra
S105	jewelry	Kerala
S106	facials	Himachal Pradesh

6 rows selected.

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

STOCK:

```
SQL> create table stock
  2  (s_id varchar(4) constraint cks_id check(s_id like'S%'),
  3  p_id varchar(6) constraint chkprdct_id check(p_id like 'P%'),
  4  qnty number,
  5  foreign key (s_id) references store(s_id),
  6  foreign key (p_id) references product(p_id));

Table created.

SQL> insert into stock
  2  values('S101','P00001',50);

1 row created.

SQL> insert into stock
  2  values('S101','P00002',55);

1 row created.

SQL> insert into stock
  2  values('S101','P00003',60);

1 row created.

SQL> insert into stock
  2  values('S101','P00004',65);

1 row created.

SQL> insert into stock
  2  values('S102','P00005',30);

1 row created.

SQL> insert into stock
  2  values('S102','P00006',20);

1 row created.
```

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

```
SQL> insert into stock
  2  values('S102','P00007',25);

1 row created.

SQL> insert into stock
  2  values('S102','P00008',25);

1 row created.

SQL> insert into stock
  2  values('S103','P00009',25);

1 row created.

SQL> insert into stock
  2  values('S103','P00010',30);

1 row created.

SQL> insert into stock
  2  values('S103','P00011',35);

1 row created.

SQL> insert into stock
  2  values('S103','P00012',40);

1 row created.

SQL> insert into stock
  2  values('S104','P00013',50);

1 row created.

SQL> insert into stock
  2  values('S104','P00014',55);

1 row created.
```

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

```
SQL> insert into stock
  2  values('S104','P00015',60);

1 row created.

SQL> insert into stock
  2  values('S104','P00016',65);

1 row created.

SQL> insert into stock
  2  values('S105','P00017',45);

1 row created.

SQL> insert into stock
  2  values('S105','P00018',30);

1 row created.

SQL> insert into stock
  2  values('S105','P00019',15);

1 row created.

SQL> insert into stock
  2  values('S105','P00020',10);

1 row created.

SQL> insert into stock
  2  values('S106','P00021',10);

1 row created.

SQL> insert into stock
  2  values('S106','P00022',20);

1 row created.
```

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

```
SQL> insert into stock
  2  values('S106','P00023',65);

1 row created.

SQL> insert into stock
  2  values('S106','P00024',80);

1 row created.

SQL> select * from stock;

S_ID P_ID        QNTY
---- ------ ----------
S101 P00001        50
S101 P00002        55
S101 P00003        60
S101 P00004        65
S102 P00005        30
S102 P00006        20
S102 P00007        25
S102 P00008        25
S103 P00009        25
S103 P00010        30
S103 P00011        35

S_ID P_ID        QNTY
---- ------ ----------
S103 P00012        40
S104 P00013        50
S104 P00014        55
S104 P00015        60
S104 P00016        65
S105 P00017        45
S105 P00018        30
S105 P00019        15
S105 P00020        10
S106 P00021        10
S106 P00022        20
```

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

S_ID	P_ID	QNTY
S106	P00023	65
S106	P00024	80

24 rows selected.

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

CUSTOMER:

```
SQL> create table cust
  2  (c_id varchar(6) constraint cust_prikey primary key constraint ckc_id check(c_id like'C%'),
  3  fname char(10) not null,
  4  lname char(10) not null,
  5  addr varchar(50) not null,
  6  phone number(10) not null);

Table created.

SQL> insert into cust
  2  values('C00101','joshna','durge','b-506,neel siddhi ,sec-17,panvel,mumbai',9000011122);

1 row created.

SQL> insert into cust
  2  values('C00102','sai','joshi','a-201,enkay chs,sec-20,manhari,shimla ',9000011133);

1 row created.

SQL> insert into cust
  2  values('C00103','amy','dsouza','d-302,reagal chs,sec-10,ooty ,mysore',9000011144);

1 row created.

SQL> insert into cust
  2  values('C00104','jennie','park','a-405,gokul society,sec-6,kochim,chennai',9000011155);

1 row created.

SQL> insert into cust
  2  values('C00105','alice','whittaker','b-206,classic,sec-12,trinagar,hyderabad',9000011166);

1 row created.

SQL> insert into cust
  2  values('C00106','riya','patel','c-602,melody tower ,sec-18,sabarmati,vadodara',9000011177);

1 row created.
```

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

SQL> select * from cust;

C_ID FNAME LNAME ADDR
------ ---------- ---------- --
PHONE

C00101 joshna durge b-506,neel siddhi ,sec-17,panvel,mumbai
9000011122

C00102 sai joshi a-201,enkay chs,sec-20,manhari,shimla
9000011133

C00103 amy dsouza d-302,reagal chs,sec-10,ooty ,mysore
9000011144

C_ID FNAME LNAME ADDR
------ ---------- ---------- --
PHONE

C00104 jennie park a-405,gokul society,sec-6,kochim,chennai
9000011155

C00105 alice whittaker b-206,classic,sec-12,trinagar,hyderabad
9000011166

C00106 riya patel c-602,melody tower ,sec-18,sabarmati,vadodara
9000011177

6 rows selected.

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

ORDER:

```
SQL> create table ordr
  2  (o_id varchar(6) constraint oid_prikey primary key constraint cko_id check(o_id like'O%'),
  3  c_id varchar(6) constraint chkc_id check(c_id like'C%'),
  4  o_state char(25) not null,
  5  o_date date,
  6  foreign key (c_id) references cust(c_id));

Table created.

SQL> insert into ordr
  2  values('O00101','C00101','maharashtra','6-Jul-2022');

1 row created.

SQL> insert into ordr
  2  values('O00102','C00102','himachal pradesh','2-Jul-2022');

1 row created.

SQL> insert into ordr
  2  values('O00103','C00103','karnataka','9-Jul-2022');

1 row created.

SQL> insert into ordr
  2  values('O00104','C00104','tamil nadu','6-Jul-2022');

1 row created.

SQL> insert into ordr
  2  values('O00105','C00105','telangana','10-Jul-2022');

1 row created.

SQL> insert into ordr
  2  values('O00106','C00106','gujarat','4-Jul-2022');

1 row created.
```

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

SQL> select * from ordr;

O_ID	C_ID	O_STATE	O_DATE
O00101	C00101	maharashtra	06-JUL-22
O00102	C00102	himachal pradesh	02-JUL-22
O00103	C00103	karnataka	09-JUL-22
O00104	C00104	tamil nadu	06-JUL-22
O00105	C00105	telangana	10-JUL-22
O00106	C00106	gujarat	04-JUL-22

6 rows selected.

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

ORDER DETAILS:

```
SQL> create table ordr_details
  2  (o_id varchar(6) constraint chhko_id check(o_id like'O%'),
  3  p_id varchar(6) constraint chhkp_id check(p_id like'P%'),
  4  t_price number ,
  5  qty number constraint chhkqnty check(qty > 0),
  6  discount number,
  7  foreign key (o_id) references ordr(o_id),
  8  foreign key (p_id) references product(p_id));

Table created.

SQL> insert into ordr_details
  2  values('O00101','P00013',4800,4,200);

1 row created.

SQL> insert into ordr_details
  2  values('O00102','P00019',2200,3,50);

1 row created.

SQL> insert into ordr_details
  2  values('O00103','P00005',45000,1,5000);

1 row created.

SQL> insert into ordr_details
  2  values('O00104','P00021',230,5,20);

1 row created.

SQL> insert into ordr_details
  2  values('O00105','P00010',17000,2,1000);

1 row created.

SQL> insert into ordr_details
  2  values('O00106','P00001',1400,3,100);
```

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

1 row created.

SQL> select * from ordr_details;

O_ID	P_ID	T_PRICE	QTY	DISCOUNT
O00101	P00013	4800	4	200
O00102	P00019	2200	3	50
O00103	P00005	45000	1	5000
O00104	P00021	230	5	20
O00105	P00010	17000	2	1000
O00106	P00001	1400	3	100

6 rows selected.

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

PAYMENT:

```
SQL> create table payment
  2  (pay_id varchar(4) constraint ckpay_id primary key constraint chkpay_id check(pay_id
like'P%'),
  3  p_method varchar(20) constraint chkpmethod check(p_method
in('cod','paytm','debit_card','credit_card')),
  4  amt number);

Table created.

SQL> insert into payment
  2  values('P101','cod',4800);

1 row created.

SQL> insert into payment
  2  values('P102','paytm',2200);

1 row created.

SQL> insert into payment
  2  values('P103','debit_card',45000);

1 row created.

SQL> insert into payment
  2  values('P104','cod',230);

1 row created.

SQL> insert into payment
  2  values('P105','credit_card',17000);

1 row created.

SQL> insert into payment
  2  values('P106','paytm',1400);

1 row created.
```

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

SQL> select * from payment;

PAY_	P_METHOD	AMT
P101	cod	4800
P102	paytm	2200
P103	debit_card	45000
P104	cod	230
P105	credit_card	17000
P106	paytm	1400

6 rows selected.

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

QUERIES:

1.Group all the product ids according to the store id to which they belong and display the count of products at each store .

```
SQL> select s_id,count(p_id)
  2  from stock
  3  group by s_id;

S_ID COUNT(P_ID)
---- -----------
S101          4
S102          4
S103          4
S104          4
S105          4
S106          4

6 rows selected.
```

2.Display all the product id and their brand name according to their prices in ascending order.

```
SQL> select p_id,bname,price
  2  from product inner join brand
  3  on product.b_id=brand.b_id
  4  order by price;

P_ID   BNAME                PRICE
------ ------------------ ----------
P00021 himalaya                 50
P00022 himalaya                 75
P00023 garnier                  90
P00024 garnier                 150
P00003 max_fashion              300
P00002 urbanic                  400
P00001 urbanic                  500
P00004 max_fashion              700
P00019 home_decor               750
P00020 home_decor               900
P00013 voyla                   1250

P_ID   BNAME                PRICE
```

```
------ ----------------- ----------
P00014 voyla                 1500
P00015 titan                1700
P00016 titan                2000
P00017 jjwood                5000
P00010 realme                9000
P00018 jjwood               10000
P00009 realme               10000
P00008 dell                 35000
P00007 dell                 40000
P00006 lenovo                45000
P00011 apple                47000

P_ID   BNAME                 PRICE
------ ----------------- ----------
P00012 apple                48000
P00005 lenovo                50000

24 rows selected.
```

3.Update the phone number of the customer named jennie park.

```
SQL> update cust
  2  set phone=9000012345
  3  where fname='jennie';

1 row updated.

SQL> select * from cust
  2  where fname='jennie';

C_ID   FNAME      LNAME      ADDR
------ ---------- ---------- --------------------------------------------------
    PHONE
----------
C00104 jennie     park       a-405,gokul society,sec-6,kochim,chennai
9000012345
```

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

4.Display all the product id along with their quantity , store name and store address where they are manufactured.

```
SQL> select p_id,qnty,sname,saddr
  2  from stock inner join store
  3  on stock.s_id=store.s_id;
```

P_ID	QNTY	SNAME	SADDR
P00001	50	clothe	Tamil Nadu
P00002	55	clothe	Tamil Nadu
P00003	60	clothe	Tamil Nadu
P00004	65	clothe	Tamil Nadu
P00005	30	laptops	Gujarat
P00006	20	laptops	Gujarat
P00007	25	laptops	Gujarat
P00008	25	laptops	Gujarat
P00009	25	mobiles	Delhi
P00010	30	mobiles	Delhi
P00011	35	mobiles	Delhi

P_ID	QNTY	SNAME	SADDR
P00012	40	mobiles	Delhi
P00013	50	electronics	Maharashtra
P00014	55	electronics	Maharashtra
P00015	60	electronics	Maharashtra
P00016	65	electronics	Maharashtra
P00017	45	jewelry	Kerala
P00018	30	jewelry	Kerala
P00019	15	jewelry	Kerala
P00020	10	jewelry	Kerala
P00021	10	facials	Himachal Pradesh
P00022	20	facials	Himachal Pradesh

P_ID	QNTY	SNAME	SADDR
P00023	65	facials	Himachal Pradesh
P00024	80	facials	Himachal Pradesh

24 rows selected.

5.Create a view for the customers with their first name joshna and amy along with their details and display it.

```
SQL> create view joshna as
  2  select * from cust
  3  where fname='joshna';

View created.

SQL> select * from joshna;

C_ID   FNAME      LNAME      ADDR
------ ---------- ---------- --------------------------------------------------
    PHONE
----------
C00101 joshna     durge      b-506,neel siddhi ,sec-17,panvel,mumbai
9000011122

SQL> create view amy as
  2  select * from cust
  3  where fname='amy';

View created.

SQL> select * from amy;

C_ID   FNAME      LNAME      ADDR
------ ---------- ---------- --------------------------------------------------
    PHONE
----------
C00103 amy        dsouza     d-302,reagal chs,sec-10,ooty ,mysore
9000011144
```

NAME :ALICE DURGE
ROLL NO : 5840
CLASS:SYCS A

6.Display all the customers along with their customer id , order id ,order date and sort data according to date in ascending order.

```
SQL> select fname,lname,cust.c_id,o_id,o_date
  2  from cust inner join ordr
  3  on cust.c_id=ordr.c_id
  4  order by o_date;

FNAME      LNAME      C_ID   O_ID   O_DATE
---------- ---------- ------ ------ ---------
sai        joshi      C00102 O00102 02-JUL-22
riya       patel      C00106 O00106 04-JUL-22
joshna     durge      C00101 O00101 06-JUL-22
jennie     park       C00104 O00104 06-JUL-22
amy        dsouza     C00103 O00103 09-JUL-22
alice      whittaker  C00105 O00105 10-JUL-22

6 rows selected.
```

7.Display all product ids whose quantity in stock is less than 50.

```
SQL> select p_id,qnty from stock
  2  where qnty<50;

P_ID        QNTY
------ ----------
P00005         30
P00006         20
P00007         25
P00008         25
P00009         25
P00010         30
P00011         35
P00012         40
P00017         45
P00018         30
P00019         15

P_ID        QNTY
------ ----------
P00020         10
P00021         10
```

P00022 20

14 rows selected.

8.Display all the order details whose total price is greater than 1000.

```
SQL> select * from ordr_details
  2  where t_price>1000;

O_ID   P_ID      T_PRICE       QTY   DISCOUNT
------ ------ ---------- ---------- ----------
O00101 P00013       4800          4        200
O00102 P00019       2200          3         50
O00103 P00005      45000          1       5000
O00105 P00010      17000          2       1000
O00106 P00001       1400          3        100
```

9.Rename customer table to customers .

```
SQL> rename cust to customers;

Table renamed.
```

10.Drop stock table.

```
SQL> drop table stock;

Table dropped.
```