Lakkam Praharsha Redddy **Spring AU 21**
Sql Assignment lakkam.praharsha@accolitedigital.com

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1. Assuming you are ready with ER Model (from Morning session Assignment), transform it into a Database schema. Create tables keeping up good practices and send me the create scripts you've written.

Answer

Creation of tables;

1)product

```
create table product(product_id number(3) primary key,product_name
varchar2(15) ,cat_id number(3),price number(6,3));
```

```
SQL> desc product;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 PRODUCT_ID                                NOT NULL NUMBER(3)
 PRODUCT_NAME                                       VARCHAR2(15)
 CAT_ID                                             NUMBER(3)
 PRICE                                              NUMBER(6,3)
```

2)**category**

```
 create table category(cat_id number(3) primary key,cat_name
varchar2(50));
```

```
SQL> desc category;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 CAT_ID                                    NOT NULL NUMBER(3)
 CAT_NAME                                           VARCHAR2(50)
```

3)sales executive

create table salesexec(s_id number(3) primary key,s_name varchar2(30),dob date,gender varchar2(1),mobile varchar2(10),constraint gender check(gender in('M','F')))

SQL> desc salesexec;

Name	Null?	Type
S_ID	NOT NULL	NUMBER(3)
S_NAME		VARCHAR2(30)
DOB		DATE
GENDER		VARCHAR2(1)
MOBILE		VARCHAR2(10)

4) location

create table location(location_id number(5) primary key,location_name varchar2(30));

Table created.

SQL> desc location;

Name	Null?	Type
LOCATION_ID	NOT NULL	NUMBER(5)
LOCATION_NAME		VARCHAR2(30)

5) customer

create table customer(cust_id number(10) primary key,cust_name varchar2(30),c_dob date,c_gender varchar2(1),c_mobile varchar2(10),constraint c_gender check(c_gender in('M','F')));
alter table customer add l_id number(5);

SQL> desc customer;

Name	Null?	Type

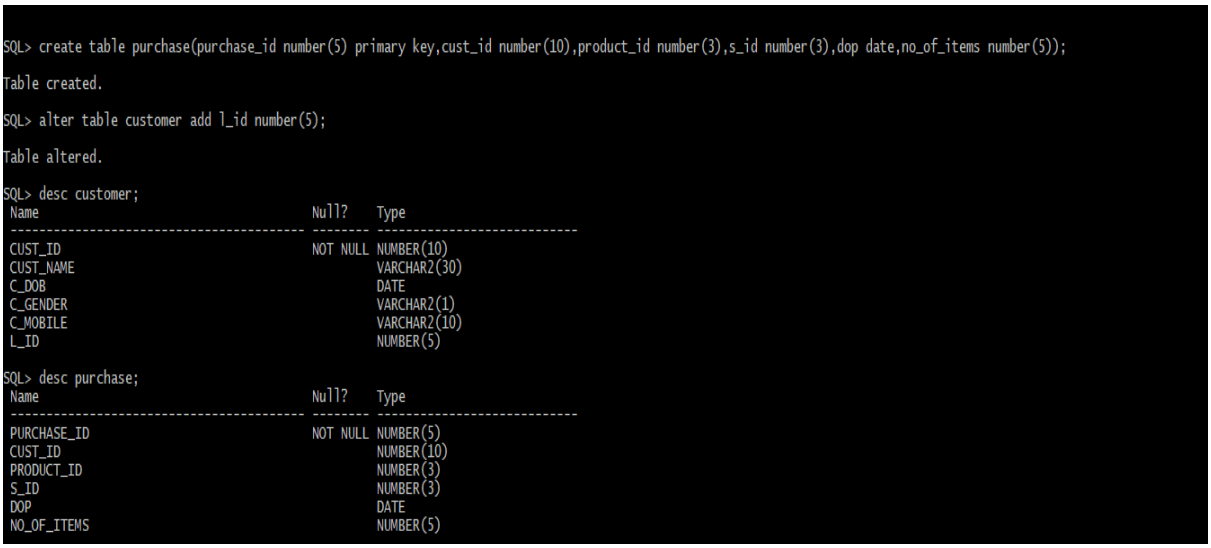
CUST_ID	NOT NULL	NUMBER(10)
CUST_NAME		VARCHAR2(30)
C_DOB		DATE
C_GENDER		VARCHAR2(1)
C_MOBILE		VARCHAR2(10)
L_ID		NUMBER(5)

6) purchased

create table purchase(purchase_id number(5) primary key,cust_id number(10),product_id number(3),s_id number(3),dop date,no_of_items number(5));

SQL> desc purchase;

Name	Null?	Type
PURCHASE_ID	NOT NULL	NUMBER(5)
CUST_ID		NUMBER(10)
PRODUCT_ID		NUMBER(3)
S_ID		NUMBER(3)
DOP		DATE
NO_OF_ITEMS		NUMBER(5)



```
SQL> create table purchase(purchase_id number(5) primary key,cust_id number(10),product_id number(3),s_id number(3),dop date,no_of_items number(5));

Table created.

SQL> alter table customer add l_id number(5);

Table altered.

SQL> desc customer;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 CUST_ID                                   NOT NULL NUMBER(10)
 CUST_NAME                                          VARCHAR2(30)
 C_DOB                                              DATE
 C_GENDER                                           VARCHAR2(1)
 C_MOBILE                                           VARCHAR2(10)
 L_ID                                               NUMBER(5)

SQL> desc purchase;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 PURCHASE_ID                               NOT NULL NUMBER(5)
 CUST_ID                                            NUMBER(10)
 PRODUCT_ID                                         NUMBER(3)
 S_ID                                               NUMBER(3)
 DOP                                                DATE
 NO_OF_ITEMS                                        NUMBER(5)
```

```
SQL> connect ep/ep
Connected.
SQL> create table product(product_id number(3) primary key,product_name varchar2(15) ,cat_id number(3),price number(6,3));

Table created.

SQL> desc product;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 PRODUCT_ID                                NOT NULL NUMBER(3)
 PRODUCT_NAME                                       VARCHAR2(15)
 CAT_ID                                             NUMBER(3)
 PRICE                                              NUMBER(6,3)

SQL> create table category(cat_id number(3) primary key,cat_name varchar2(50));

Table created.

SQL> desc category;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 CAT_ID                                    NOT NULL NUMBER(3)
 CAT_NAME                                           VARCHAR2(50)

SQL> create table salesexec(s_id number(3) primary key,s_name varchar2(30),dob date,gender varchar2(1),mobile varchar2(10),constraint gender check(gender in('M','F')));

Table created.

SQL> desc salesexec;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 S_ID                                      NOT NULL NUMBER(3)
 S_NAME                                             VARCHAR2(30)
 DOB                                                DATE
 GENDER                                             VARCHAR2(1)
 MOBILE                                             VARCHAR2(10)

SQL> create table location(location_id number(5) primary key,location_name varchar2(30));

Table created.

SQL> desc location;
 Name                                      Null?    Type
 ----------------------------------------- -------- ----------------------------
 LOCATION_ID                               NOT NULL NUMBER(5)
 LOCATION_NAME                                      VARCHAR2(30)
```

Adding foreign keys:

1)alter table customer add foreign key(l_id) references location(location_id);

2) alter table purchase add (foreign key(product_id) references product(product_id),foreign key(cust_id) references customer(cust_id),foreign key(s_id) references salesexec(s_id));

```
SQL> alter table product add foreign key(cat_id) references category(cat_id);

Table altered.

SQL> alter table customer add forign key(l_id) references location(l_id);
alter table customer add forign key(l_id) references location(l_id)
                                    *
ERROR at line 1:
ORA-01735: invalid ALTER TABLE option


SQL> alter table customer add forign key(l_id) references location(location_id);
alter table customer add forign key(l_id) references location(location_id)
                                    *
ERROR at line 1:
ORA-01735: invalid ALTER TABLE option


SQL> alter table customer add foreign key(l_id) references location(location_id);

Table altered.

SQL> alter table purchase add foreign key(product_id) references product(product_id),foreign key(cust_id) references customer(cust_id),foreign key(s_id) references sale
sexec(s_id);
alter table purchase add foreign key(product_id) references product(product_id),foreign key(cust_id) references customer(cust_id),foreign key(s_id) references salesexec
(s_id)
                                                                                *
ERROR at line 1:
ORA-01735: invalid ALTER TABLE option


SQL> alter table purchase add (foreign key(product_id) references product(product_id),foreign key(cust_id) references customer(cust_id),foreign key(s_id) references sal
esexec(s_id));

Table altered.
```

c)Inserting into tables
1)category table

1) insert into category values(1,'cake');

2)insert into category values(2,'drink');

3)insert into category values(3,'ice cream');

2)product table
1) insert into product values(1,'honey cake',1,40);

2) insert into product values(2,'plum cake',1,50);

3) insert into product values(3,'vanila-cream',3,90);

4) insert into product values(4,'choco-cream',3,100);

5) insert into product values(5,'milk shake',2,120);

6) insert into product values(6,'banana drink',2,110);

1)Location table

1) insert into location values(1,'kurnool');

2)insert into location values(2,'vijayawada');

3) insert into location values(3,'hyderabad');

4) insert into location values(4,'vizag');

4)salesexec table
1)insert into salesexec values(1,'praharsha','14-oct-2000','M','9966772111');

2) insert into salesexec values(2,'kowshik','21-jun-2000','M','7995708743');

3) insert into salesexec values(3,'apoorva','26-oct-2000','F','9988776655');

4) insert into salesexec values(4,'bhavitha','13-aug-2000','F','9988776455');

5)customer table

1) insert into customer values(1,'mythresh','16-mar-2000','M',9934566795,1);

2) insert into customer values(2,'shiv','11-jan-2000','M',9934296795,2);

3) insert into customer values(3,'harshitha','14-mar-2000','F',9824296795,3);

3) insert into customer values(4,'haritha','11-sep-2000','F',9824346795,4);

6)purchase table

1)insert into purchase values(1,1,1,2,'3-jan-2021',4);

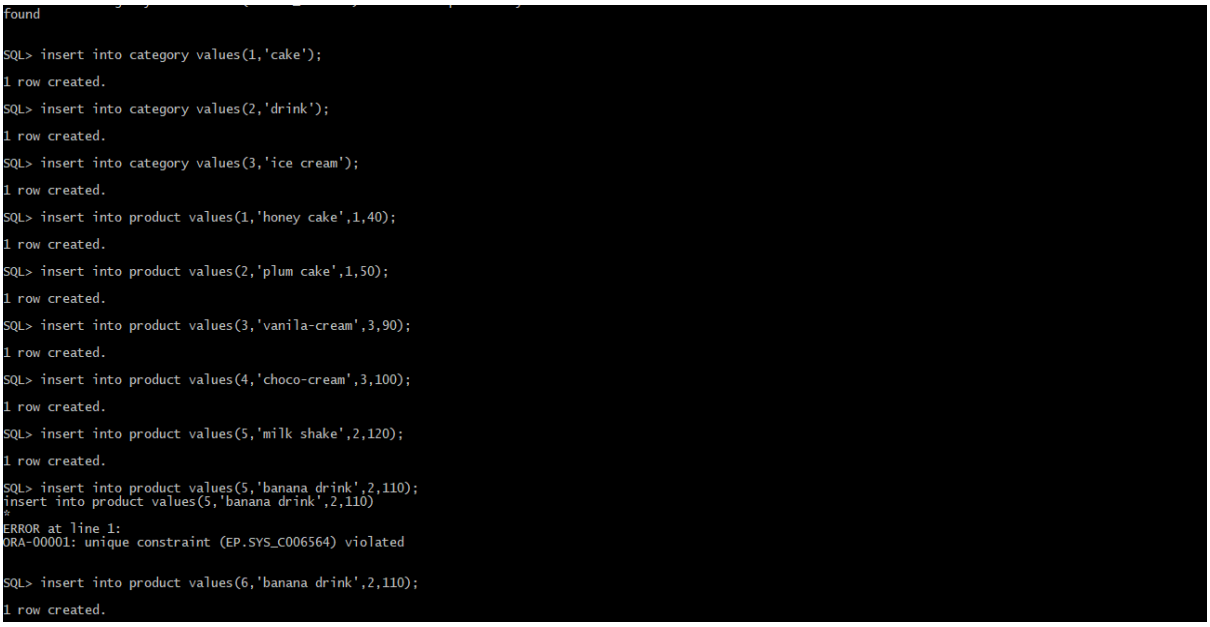
2) insert into purchase values(2,1,3,1,'1-jan-2021',5);

3) insert into purchase values(3,2,3,3,'4-jan-2021',5);

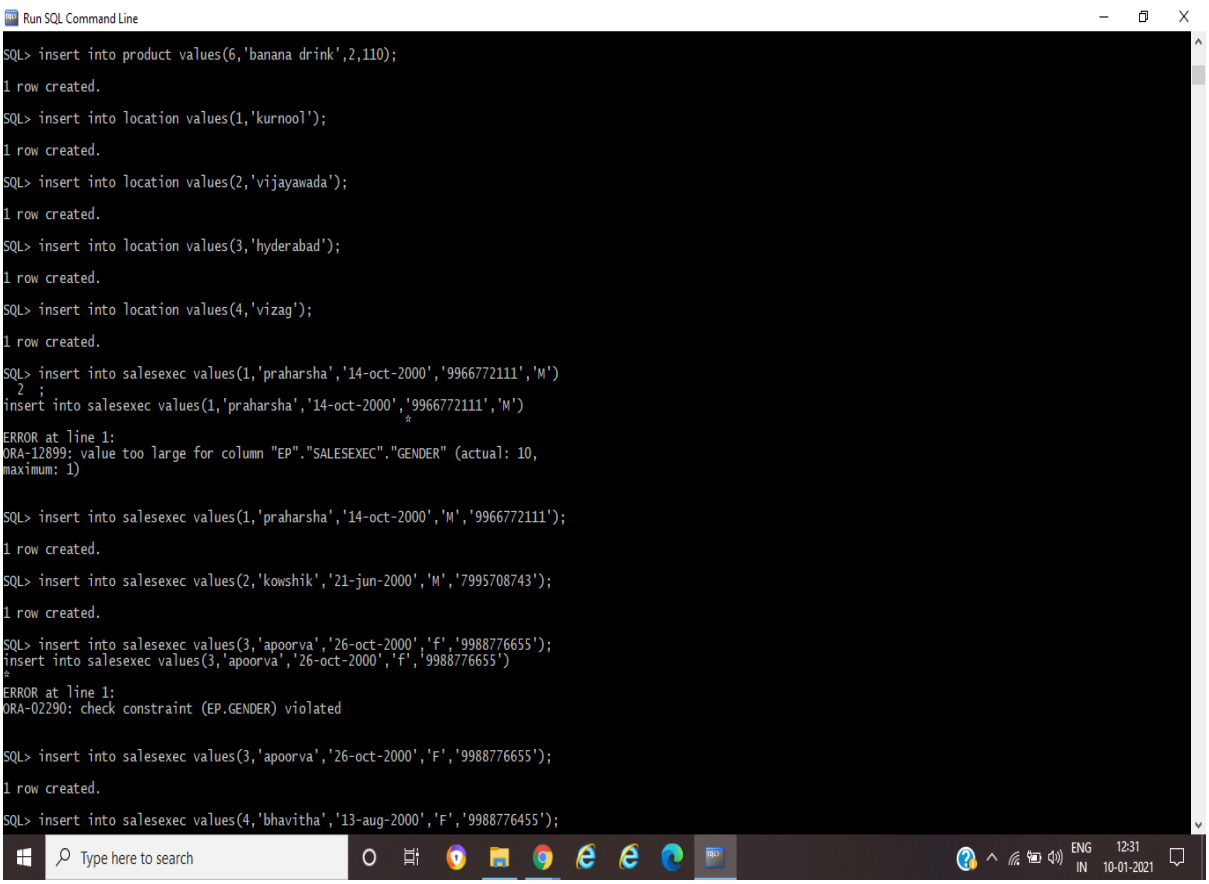
4) insert into purchase values(4,2,5,4,'7-jan-2021',4);

5) insert into purchase values(5,3,6,1,'8-jan-2021',3);

6) insert into purchase values(6,3,4,4,'2-jan-2021',1);



```
found

SQL> insert into category values(1,'cake');

1 row created.

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

1 row created.

SQL> insert into category values(3,'ice cream');

1 row created.

SQL> insert into product values(1,'honey cake',1,40);

1 row created.

SQL> insert into product values(2,'plum cake',1,50);

1 row created.

SQL> insert into product values(3,'vanila-cream',3,90);

1 row created.

SQL> insert into product values(4,'choco-cream',3,100);

1 row created.

SQL> insert into product values(5,'milk shake',2,120);

1 row created.

SQL> insert into product values(5,'banana drink',2,110);
insert into product values(5,'banana drink',2,110)
*
ERROR at line 1:
ORA-00001: unique constraint (EP.SYS_C006564) violated


SQL> insert into product values(6,'banana drink',2,110);

1 row created.
```



```
Run SQL Command Line

SQL> insert into product values(6,'banana drink',2,110);

1 row created.

SQL> insert into location values(1,'kurnool');

1 row created.

SQL> insert into location values(2,'vijayawada');

1 row created.

SQL> insert into location values(3,'hyderabad');

1 row created.

SQL> insert into location values(4,'vizag');

1 row created.

SQL> insert into salesexec values(1,'praharsha','14-oct-2000','9966772111','M')
  2  ;
insert into salesexec values(1,'praharsha','14-oct-2000','9966772111','M')
                                           *

ERROR at line 1:
ORA-12899: value too large for column "EP"."SALESEXEC"."GENDER" (actual: 10,
maximum: 1)


SQL> insert into salesexec values(1,'praharsha','14-oct-2000','M','9966772111');

1 row created.

SQL> insert into salesexec values(2,'kowshik','21-jun-2000','M','7995708743');

1 row created.

SQL> insert into salesexec values(3,'apoorva','26-oct-2000','f','9988776655');
insert into salesexec values(3,'apoorva','26-oct-2000','f','9988776655')
*
ERROR at line 1:
ORA-02290: check constraint (EP.GENDER) violated


SQL> insert into salesexec values(3,'apoorva','26-oct-2000','F','9988776655');

1 row created.

SQL> insert into salesexec values(4,'bhavitha','13-aug-2000','F','9988776455');

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ENG
IN
12:31
10-01-2021
```

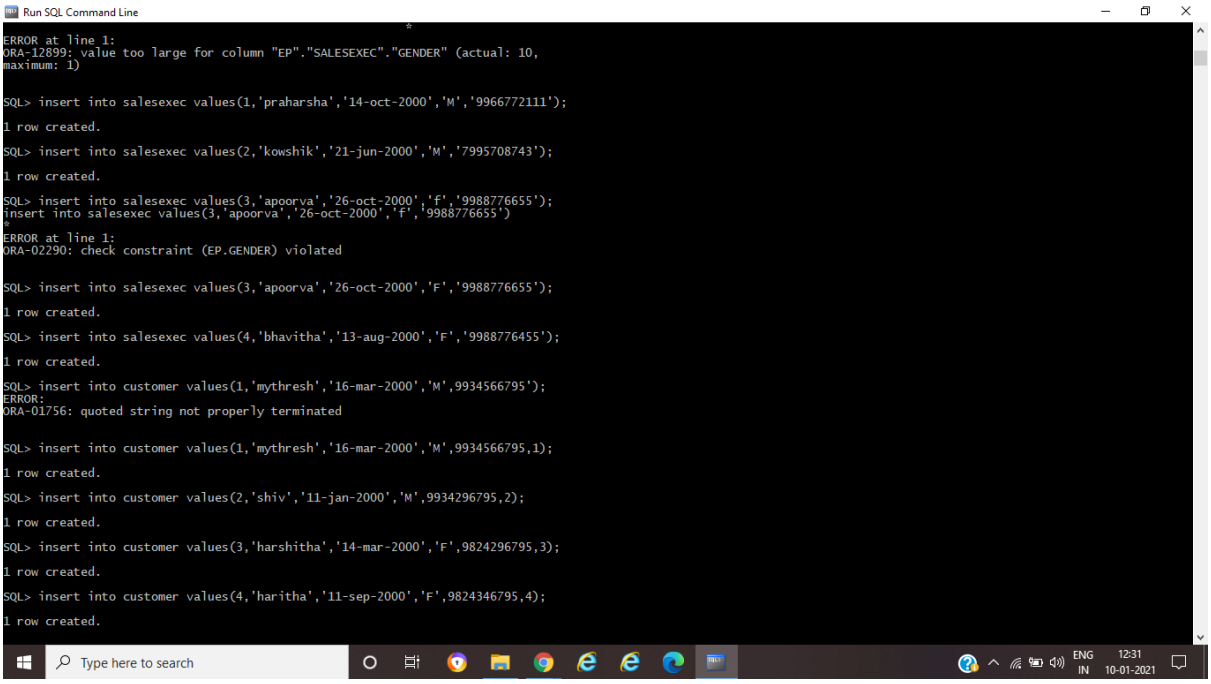

2. Write a query to retrieve the most sold product per day in a specific location (take any location) in last week.

Answer

I am finding the most sold product in Vijayawada day wise we approached this using views.

Sol: SQL> create view weeks_data2 as (select cust_id,product_id,no_of_items,dop from purchase where dop between '3-jan-2021' and '10-jan-2021' and cust_id in (select cust_id from customer where l_id=2));

View created.

SQL> create view answer1 as (select max(no_of_items) as most_sold_per_day,product_id,dop from weeks_data2 w group by dop,product_id);

View created.

SQL> select answer1.product_id,answer1.most_sold_per_day,answer1.dop,product.product_name from answer1 right join product on product.product_id= answer1.product_id where dop is not null;

PRODUCT_ID	MOST_SOLD_PER_DAY	DOP	PRODUCT_NAME

3	5	04-JAN-21	vanila-cream
5	4	07-JAN-21	milk shake

```
SQL>  create view weeks_data2 as (select cust_id,product_id,no_of_items,dop from purchase where dop between '3-jan-2021' and '10-jan-2021'  and cust_id in (select cust_
id from customer where l_id=2));

View created.

SQL> create view  answer1 as (select max(no_of_items) as most_sold_per_day,product_id,dop from weeks_data2 w group by dop,product_id);

View created.

SQL> select answer1.product_id,answer1.most_sold_per_day,answer1.dop,product.product_name from answer1 right join product on product.product_id= answer1.product_id wher
e dop is not null;

PRODUCT_ID MOST_SOLD_PER_DAY DOP       PRODUCT_NAME
---------- ----------------- --------- --------------
         3                 5 04-JAN-21 vanila-cream
         5                 4 07-JAN-21 milk shake

SQL>
```

3. Write a query to list all the sales persons details along with the count of products sold by them (if any) till current date.

Note : Along with the queries you've written, attach screenshots of the output for Q's 2 & 3.

Answer:

create view sellers1 as select s_id,count(*) as products_sold from purchase group by s_id having count(*)>=1;

View created.

SQL> select salesexec.s_id,salesexec.s_name,salesexec.gender,salesexec.mobile,sellers1.products_sold from salesexec left join sellers1 on sellers1.s_id=salesexec.s_id;

S_ID	S_NAME	G	MOBILE	PRODUCTS_SOLD
1	praharsha	M	9966772111	2
2	kowshik	M	7995708743	1
4	bhavitha	F	9988776455	3
3	apoorva	F	9988776655	1

```
SQL> create view sellers1 as select  s_id,count(*) as products_sold from purchase group by s_id having count(*)>=1;

View created.

SQL> select salesexec.s_id,salesexec.s_name,salesexec.gender,salesexec.mobile,sellers1.products_sold from salesexec left join sellers1 on sellers1.s_id=salesexec.s_id;


      S_ID S_NAME                         G MOBILE     PRODUCTS_SOLD
---------- ------------------------------ - ---------- -------------
         1 praharsha                      M 9966772111             2
         2 kowshik                        M 7995708743             1
         4 bhavitha                       F 9988776455             3
         3 apoorva                        F 9988776655             1

SQL>
```