

1. A) Find the names of people who do not like to eat fruits (nested queries)

```
select fname, lname from person where ssn not in (select ssn from
favorite_food where category='fruits');
```

fname	lname
Ramesh	Narayan
Ahmad	Jabber
John	Smith
Alice	Zelaya
James	Borg

B):Find the names of people who like to eat chocolates

```
select fname, lname from person where ssn in (select ssn from
favorite_food where name = 'chocolate');
```

fname	lname
Franklin	Wong

1 row in set (0.001 sec)

2. Use Cartesian product to achieve same result.

```
select p.fname, p.lname, f.name, f.price, f.expiry_date from person p,
favorite_food ff, food f where ff.name = f.name and p.ssn = ff.ssn;
```

fname	lname	name	price	expiry_date
Franklin	Wong	apple	2	2019-03-16
Franklin	Wong	orange	3	2019-11-16
Franklin	Wong	chocolate	4	2019-10-11
John	Smith	gummy bear	1	2019-11-11
John	Smith	cake	8	2019-11-01
Alice	Zelaya	chocolate cake	20	2019-10-09
Jennifer	Wallace	grapes	2	2019-10-12
Ramesh	Narayan	Big Mac Combo	4	2019-10-11
Joyce	English	Watermelon	3	2019-10-18
Jennifer	Wallace	grapes	2	2019-10-12
Jennifer	Wallace	grapes	2	2019-10-12
Jennifer	Wallace	grapes	2	2019-10-12

12 rows in set (0.001 sec)

MariaDB [npudb1]>

3-Join all the tables and display First name, Last name, food name, price, expiry_date (Left outer, right outer, inner join)

a. Inner Join:

```
select p.fname, p.lname, f.name, f.price, f.expiry_date from person p
inner join favorite_food ff on ff.ssn = p.ssn inner join food f on
ff.name = f.name;
```

fname	lname	name	price	expiry_date
Franklin	Wong	apple	2	2019-03-16
Franklin	Wong	orange	3	2019-11-16
Franklin	Wong	chocolate	4	2019-10-11
John	Smith	gummy bear	1	2019-11-11
John	Smith	cake	8	2019-11-01
Alice	Zelaya	chocolate cake	20	2019-10-09
Jennifer	Wallace	grapes	2	2019-10-12
Ramesh	Narayan	Big Mac Combo	4	2019-10-11
Joyce	English	Watermelon	3	2019-10-18
Jennifer	Wallace	grapes	2	2019-10-12
Jennifer	Wallace	grapes	2	2019-10-12
Jennifer	Wallace	grapes	2	2019-10-12

12 rows in set (0.001 sec)

b. Right outer join

```
select p.fname, p.lname, f.name, f.price, f.expiry_date from person p
right outer join favorite_food ff on ff.ssn = p.ssn inner join food f
on ff.name = f.name;
```

fname	lname	name	price	expiry_date
Franklin	Wong	apple	2	2019-03-16
Franklin	Wong	orange	3	2019-11-16
Franklin	Wong	chocolate	4	2019-10-11
John	Smith	gummy bear	1	2019-11-11
John	Smith	cake	8	2019-11-01
Alice	Zelaya	chocolate cake	20	2019-10-09
Jennifer	Wallace	grapes	2	2019-10-12
Jennifer	Wallace	grapes	2	2019-10-12
Jennifer	Wallace	grapes	2	2019-10-12
Jennifer	Wallace	grapes	2	2019-10-12
Ramesh	Narayan	Big Mac Combo	4	2019-10-11
Joyce	English	Watermelon	3	2019-10-18

12 rows in set (0.001 sec)

c.Natural join

```
select t.txn_id, t.txn_type_cd, t.account_id, t.amount, a.cust_id
from transaction t natural join account a;
```

txn_id	txn_type_cd	account_id	amount	cust_id
978	DBT	103	100	1
979	CDT	103	25	1
978	DBT	103	100	1
979	CDT	103	25	1
980	DBT	104	250	2
980	DBT	104	250	2
984	DBT	106	500	3
981	DBT	105	1000	4
982	CDT	105	138.5	4
983	CDT	105	77.86	4
984	DBT	106	500	3
981	DBT	105	1000	4
982	CDT	105	138.5	4
983	CDT	105	77.86	4

14 rows in set (0.001 sec)

d):Left outer:

```
select p.fname, p.lname, f.name, f.price, f.expiry_date from person p
left outer join favorite_food ff on ff.ssn = p.ssn inner join food f
on ff.name = f.name;
```

fname	lname	name	price	expiry_date
Franklin	Wong	apple	2	2019-03-16
Franklin	Wong	orange	3	2019-11-16
Franklin	Wong	chocolate	4	2019-10-11
John	Smith	gummy bear	1	2019-11-11
John	Smith	cake	8	2019-11-01
Alice	Zelaya	chocolate cake	20	2019-10-09
Jennifer	Wallace	grapes	2	2019-10-12
Ramesh	Narayan	Big Mac Combo	4	2019-10-11
Joyce	English	Watermelon	3	2019-10-18
Jennifer	Wallace	grapes	2	2019-10-12
Jennifer	Wallace	grapes	2	2019-10-12
Jennifer	Wallace	grapes	2	2019-10-12

12 rows in set (0.001 sec)

4): A) Today is Oct 31 st find all the fresh food and display food with person's name.

```
select p.fname, p.lname, ff.name from person p inner join
favorite_food ff on p.ssn = ff.ssn where ff.name in( select name from
food where expiry_date >= '2019-10-31');
```

fname	lname	name
Franklin	Wong	orange
John	Smith	gummy bear
John	Smith	cake

3 rows in set (0.001 sec)

4: B)–Today is Oct 31 st oct 31 st and Nov 12 th

find all food which will expire between

```
select p.fname, p.lname, ff.name from person p inner join
favorite_food ff on p.ssn = ff.ssn where ff.name in( select name from
food where expiry_date between '2019-10-31' and '2019-11-12');
```

fname	lname	name
John	Smith	gummy bear
John	Smith	cake

2 rows in set (0.001 sec)

5-Find all the transactions which happened in the months of March and April 2004 (List txn_id, txn_type, account_id, amount)

```
select txn_id, txn_type_cd, account_id, amount from transaction where
date between '2004-03-01' and '2004-04-30';
```

txn_id	txn_type_cd	account_id	amount
980	DBT	104	250
981	DBT	105	1000
982	CDT	105	138.5
983	CDT	105	77.86
984	DBT	106	500

6. Find all the transactions which happened in Jan and Feb 2004 (List txn_id, txn_type, account_id, amount, cust_id)

```
select t.txn_id, t.txn_type_cd, t.account_id, t.amount, a.cust_id
from transaction t left outer join account a on t.account_id =
a.account_id where t.date between '2004-01-01' and '2004-02-28';
```

txn_id	txn_type_cd	account_id	amount	cust_id
978	DBT	103	100	1
979	CDT	103	25	1
978	DBT	103	100	1
979	CDT	103	25	1

4 rows in set (0.001 sec)