SQL Assignment

1. Write a query to display the policytypeid, policytypename, description of all the car's policy details.

```
SELECT ps.policy_type_id,
    rpt.policy_type_name,
    ps.description
FROM policy_sub_types ps
JOIN ref_policy_types rpt
ON ps.policy_type_code = rpt.policy_type_code
WHERE rpt.policy_type_name = 'car';
```

2. Write a query to display the policytypecode,no of polycies in each code with alias name NO_OF_POLICIES.

```
SELECT policy_type_code,
    COUNT(*) AS NO_OF_POLICIES
FROM policy_sub_types
GROUP BY policy_type_code;
```

3. Write a query to display the userid,firstname,lastname, email,mobileno who are residing in Chennai.

```
SELECT u.user_id,
    u.firstname,
    u.lastname,
    u.email,
    u.mobileno
FROM user_details u
JOIN address_details a
ON u.address_id = a.address_id
WHERE a.city = 'chennai';
```

4. Write a query to display the userid, firstname lastname with alias name USER_NAME,email,mobileno who has taken the car polycies.

```
SELECT DISTINCT u.user_id,
    CONCAT(u.firstname,' ',u.lastname) AS USER_NAME,
    u.email,
    u.mobileno
FROM user_details u
JOIN user_policies up ON u.user_id = up.user_id
JOIN policy_sub_types ps ON up.policy_type_id = ps.policy_type_id
JOIN ref_policy_types rpt ON ps.policy_type_code = rpt.policy_type_code
WHERE rpt.policy_type_name = 'car';
```

5. Write a query to display the userid, firstname,last name who has taken the car policies but not home ploicies.

```
SELECT DISTINCT u.user_id,
    u.firstname,
    u.lastname
FROM user_details u
JOIN user_policies up ON u.user_id = up.user_id
JOIN policy_sub_types ps ON up.policy_type_id = ps.policy_type_id
JOIN ref_policy_types rpt ON ps.policy_type_code = rpt.policy_type_code
WHERE rpt.policy_type_name = 'car'
AND u.user_id NOT IN (
  SELECT up2.user_id
```

```
    FROM user_policies up2
    JOIN policy_sub_types ps2 ON up2.policy_type_id = ps2.policy_type_id
    JOIN ref_policy_types rpt2 ON ps2.policy_type_code = rpt2.policy_type_code
    WHERE rpt2.policy_type_name = 'home'
);
```

6. Write a query to display the policytypecode, policytype name which policytype has maximum no of policies.

```
SELECT ps.policy_type_code,
      rpt.policy_type_name
FROM policy_sub_types ps
JOIN ref_policy_types rpt
ON ps.policy_type_code = rpt.policy_type_code
GROUP BY ps.policy_type_code, rpt.policy_type_name
HAVING COUNT(*) = (
   SELECT MAX(cnt)
   FROM (
      SELECT COUNT(*) cnt
      FROM policy_sub_types
      GROUP BY policy_type_code
   ) t
);
```

7. Write a query to display the userid, firtsname, lastname, city state whose city is ending with ‘bad’.

```
SELECT u.user_id,
      u.firstname,
      u.lastname,
      a.city,
      a.state
FROM user_details u
JOIN address_details a
ON u.address_id = a.address_id
WHERE a.city LIKE '%bad';
```

8. Write a query to display the userid, firstname, lastname ,ploicyno, dateregistered who has registered before may 2012.

```
SELECT u.user_id,
     u.firstname,
     u.lastname,
     up.policy_no,
     up.date_registered
FROM user_details u
JOIN user_policies up
ON u.user_id = up.user_id
WHERE up.date_registered < '2012-05-01';
```

9. Write a query to display the userid, firstname, lastname who has taken more than one policies.

```
SELECT u.user_id,
      u.firstname,
      u.lastname
FROM user_details u
JOIN user_policies up
ON u.user_id = up.user_id
GROUP BY u.user_id, u.firstname, u.lastname
HAVING COUNT(up.policy_no) > 1;
```

10. Write a query to display the policytypecode, policytypename, policytypeid, userid, ploicyno whose maturity will fall in the month of august 2013.

```
SELECT rpt.policy_type_code,
    rpt.policy_type_name,
    ps.policy_type_id,
    up.user_id,
    up.policy_no
FROM user_policies up
JOIN policy_sub_types ps ON up.policy_type_id = ps.policy_type_id
JOIN ref_policy_types rpt ON ps.policy_type_code = rpt.policy_type_code
WHERE DATE_ADD(up.date_registered, INTERVAL ps.maturityperiod YEAR)
BETWEEN '2013-08-01' AND '2013-08-31';
```

11. Write a query to display the policytypecode, policytypename, policytypeid whose maturity amount is the double than the total paid amount.

```
SELECT DISTINCT ps.policy_type_code,
    rpt.policy_type_name,
    ps.policy_type_id
FROM policy_sub_types ps
JOIN ref_policy_types rpt ON ps.policy_type_code = rpt.policy_type_code
JOIN user_policies up ON ps.policy_type_id = up.policy_type_id
JOIN policy_payments pp ON up.policy_no = pp.policy_no
GROUP BY ps.policy_type_code, rpt.policy_type_name, ps.policy_type_id, ps.maturityamount
HAVING ps.maturityamount = 2 * SUM(pp.amount);
```

12. Write a query to display the userid, total amount paid by the customer with alias name total_amount.

```
SELECT user_id,
    SUM(amount) AS total_amount
FROM policy_payments
GROUP BY user_id;
```

13. Write a query to display the user_id, policy_no, total amount paid by the customer for the each policies.

```
SELECT user_id,
    policy_no,
    SUM(amount) AS total_amount
FROM policy_payments
GROUP BY user_id, policy_no;
```

14. Write a query to display the user_id, policy_no, balance_amount for each policies.

```
SELECT up.user_id,
    up.policy_no,
    (ps.maturityamount - SUM(pp.amount)) AS balance_amount
FROM user_policies up
JOIN policy_sub_types ps ON up.policy_type_id = ps.policy_type_id
JOIN policy_payments pp ON up.policy_no = pp.policy_no
GROUP BY up.user_id, up.policy_no, ps.maturityamount;
```

15. write a query to display the user_id,policy_no, balancepayment years with alias name BALANCE_YEARS for all the customer for each policies.

```
SELECT up.user_id,
    up.policy_no,
    (ps.yearsofpayements - COUNT(pp.receipno)) AS BALANCE_YEARS
FROM user_policies up
JOIN policy_sub_types ps ON up.policy_type_id = ps.policy_type_id
```

```
LEFT JOIN policy_payments pp ON up.policy_no = pp.policy_no
GROUP BY up.user_id, up.policy_no, ps.yearsofpayements;
```

16. Write a query to display the user details userid,firstname,last who has taken car, home and life loans.

```
SELECT u.user_id,
    u.firstname,
    u.lastname
FROM user_details u
JOIN user_policies up ON u.user_id = up.user_id
JOIN policy_sub_types ps ON up.policy_type_id = ps.policy_type_id
JOIN ref_policy_types rpt ON ps.policy_type_code = rpt.policy_type_code
GROUP BY u.user_id, u.firstname, u.lastname
HAVING COUNT(DISTINCT rpt.policy_type_name) = 3;
```

17. Write a query to select policy_type_code,total amount paid by all the customers with alias name total_amount for each policy department.

```
SELECT ps.policy_type_code,
    SUM(pp.amount) AS total_amount
FROM policy_payments pp
JOIN user_policies up ON pp.policy_no = up.policy_no
JOIN policy_sub_types ps ON up.policy_type_id = ps.policy_type_id
GROUP BY ps.policy_type_code;
```

18. Write a query to select user_id,user_name,policy_type_code,policy_type_id of users who has registered more than one policy type unde same policy code.

```
SELECT u.user_id,
    CONCAT(u.firstname,' ',u.lastname) AS user_name,
    ps.policy_type_code,
    ps.policy_type_id
FROM user_details u
JOIN user_policies up ON u.user_id = up.user_id
JOIN policy_sub_types ps ON up.policy_type_id = ps.policy_type_id
GROUP BY u.user_id, user_name, ps.policy_type_code
HAVING COUNT(DISTINCT ps.policy_type_id) > 1;
```

19. Write a query to display the policy_type_code,policytype name in which policy department has min number of policies registered.

```
SELECT rpt.policy_type_code,
    rpt.policy_type_name
FROM ref_policy_types rpt
JOIN policy_sub_types ps ON rpt.policy_type_code = ps.policy_type_code
GROUP BY rpt.policy_type_code, rpt.policy_type_name
HAVING COUNT(*) = (
  SELECT MIN(cnt)
  FROM (
    SELECT COUNT(*) cnt
    FROM policy_sub_types
    GROUP BY policy_type_code
  ) t
);
```

20. Write a query to display the user_id,user_name, address,phoneno,policytypecode,policytypeid,policytypename, who has complemented all payements for the policies.

```
SELECT u.user_id,
    CONCAT(u.firstname,' ',u.lastname) AS user_name,
    a.addressline1 AS address,
    u.mobileno AS phoneno,
    ps.policy_type_code,
    ps.policy_type_id,
    rpt.policy_type_name
FROM user_details u
JOIN address_details a ON u.address_id = a.address_id
JOIN user_policies up ON u.user_id = up.user_id
JOIN policy_sub_types ps ON up.policy_type_id = ps.policy_type_id
JOIN ref_policy_types rpt ON ps.policy_type_code = rpt.policy_type_code
JOIN policy_payments pp ON up.policy_no = pp.policy_no
GROUP BY u.user_id, up.policy_no, ps.yearsofpayements
HAVING COUNT(pp.receipno) = ps.yearsofpayements;
```

21. write a query to display the user_id, user_name, address,phoneno,policytypecode,policytypeid,policytypename,date ofd register who has registered latest 2.

```
SELECT u.user_id,
    CONCAT(u.firstname,' ',u.lastname) AS user_name,
    a.addressline1 AS address,
    u.mobileno AS phoneno,
    ps.policy_type_code,
    ps.policy_type_id,
    rpt.policy_type_name,
    up.date_registered
FROM user_policies up
JOIN user_details u ON up.user_id = u.user_id
JOIN address_details a ON u.address_id = a.address_id
JOIN policy_sub_types ps ON up.policy_type_id = ps.policy_type_id
JOIN ref_policy_types rpt ON ps.policy_type_code = rpt.policy_type_code
ORDER BY up.date_registered DESC
LIMIT 2;
```