Title: Design at least 10 SQL queries for suitable database application using SQL DML

statements: all types of Join, Sub-Query and View.

* **Salesman  table:**

**create table salesman(sid number(10) primary key, name varchar(30) not null, city varchar(20), commission decimal(10,2) not null);**

**desc salesman;**

**insert into salesman values('5001','James Hoog','New York','0.15');**

**insert into salesman values('5002','Nail Knite ','Paris','0.13');**

**insert into salesman values('5005','Pit Alex ','London','0.11');**

**insert into salesman values('5006','Mc Lyon','Paris','0.14');**

**insert into salesman values('5007','Paul Adam','Rome','0.13');**

**insert into salesman values('5003','Lauson Hen','San Jose','0.12');**

**select \* from salesman;**

* **Customer  table:**

**create table customer(cid number(10) primary key, cname varchar(30) not null, city varchar(20), grade number(10), sid number(10),**

**FOREIGN KEY (sid) REFERENCES salesman(sid));**

**desc customer;**

**insert into customer values('3002',' Nick Rimando ','New York ','100','5001');**

**insert into customer values('3007','Brad Davis','New York ','200','5001');**

**insert into customer values('3005','Graham Zusi ','California','200','5002');**

**insert into customer values('3008','Julian Green ','London','300','5002');**

**insert into customer values('3004','Fabian Johnson','Paris','300','5006');**

**insert into customer values('3009','Geoff Cameron','Berlin','100','5003');**

**insert into customer values('3003','Jozy Altidor','Moscow','200','5007');**

**insert into customer values('3001','Brad Guzan','London','','5003');**

**select \* from customer;**

* **Orders:**

**CREATE TABLE Orders (**

**ord\_no NUMBER(10) PRIMARY KEY,**

**purch\_amt DECIMAL(10, 2),**

**ord\_date DATE,**

**cid NUMBER(10),**

**sid NUMBER(10),**

**FOREIGN KEY (cid) REFERENCES Customer(cid),**

**FOREIGN KEY (sid) REFERENCES Salesman(sid) );**

**INSERT INTO Orders VALUES (70001, 150.5,'10/05/2012', 3005, 5002);**

**INSERT INTO Orders VALUES (70009, 270.65,'09/10/2012', 3001, 5003);**

**INSERT INTO Orders VALUES (70002, 65.26,'10/05/2012', 3002, 5001);**

**INSERT INTO Orders VALUES (70004, 110.5,'08/17/2012', 3009, 5003);**

**INSERT INTO Orders VALUES (70007, 948.5,'09/10/2012', 3005, 5002);**

**INSERT INTO Orders VALUES (70005, 2400.6,'07/27/2012', 3007, 5001);**

**INSERT INTO Orders VALUES (70008, 5760.0,'09/10/2012', 3002, 5001);**

**INSERT INTO Orders VALUES (70010, 1983.43,'10/10/2012',3004, 5006);**

**INSERT INTO Orders VALUES (70003, 2480.4,'10/10/2012', 3009, 5003);**

**INSERT INTO Orders VALUES (70012, 250.45,'06/27/2012', 3008, 5002);**

**INSERT INTO Orders VALUES (70011, 75.29,'08/17/2012', 3003, 5007);**

**INSERT INTO Orders VALUES (70013, 3045.6,'04/25/2012', 3002, 5001);**

**select \* from Orders;**

1. **Find the salesmen and customers with their names and cities, who belong to the same city.**

**SELECT s.name AS salesman\_name, s.city AS salesman\_city, c.cname AS customer\_name, c.city AS city**

**FROM Salesman s**

**JOIN Customer c ON s.city = c.city;**

1. **Prepare a list showing which salesmen are working for which customers along with the city and commissions earned by the salesman.**

**SELECT s.name AS salesman\_name, c.cname AS customer\_name, c.city AS city, s.commission**

**FROM Salesman s**

**JOIN Customer c ON s.sid = c.sid;**

**3. Write a query to perform a join between the tables Salesman and Orders, ensuring each table's columns appear once and only relational rows are displayed.**

**SELECT s.sid, s.name AS salesman\_name, s.city AS salesman\_city, o.ord\_no, o.purch\_amt, o.ord\_date, o.cid**

**FROM Salesman s**

**JOIN Orders o ON s.sid = o.sid;**

**4.Prepare a list of salesmen who work for one or more customers or have not yet been assigned to any customers.**

**SELECT s.name AS salesman\_name, COUNT(c.cid) AS customer\_count**

**FROM Salesman s**

**LEFT JOIN Customer c ON s.sid = c.sid**

**GROUP BY s.sid, s.name**

**HAVING COUNT(c.cid) > 0 OR COUNT(c.cid) IS NULL;**

**5.Prepare a list of salesmen in ascending order who work for one or more customers or have not yet been assigned to any customers.**

**SELECT s.name AS salesman\_name, COUNT(c.cid) AS customer\_count**

**FROM Salesman s**

**LEFT JOIN Customer c ON s.sid = c.sid**

**GROUP BY s.sid, s.name**

**HAVING COUNT(c.cid) > 0 OR COUNT(c.cid) IS NULL**

**ORDER BY name ASC;**

**B:**

**create table employee3(ename varchar(30) PRIMARY KEY, street varchar(20),city varchar(20));**

**insert into employee3 values('Pravin','mashrul','Nashik');**

**insert into employee3 values('Vikas','vijapur','shambahjinagar');**

**insert into employee3 values('yash','Mashrul','Nashik');**

**insert into employee3 values('Mahesh','Amrutdham','Nashik');**

**insert into employee3 values('Omkar','Makhamalabad','Nashik');**

**insert into employee3 values('Manav','Darmpeth','Nagapur');**

**insert into employee3 values('Subham','kalavan road','Kalavan');**

**select \* from employee3;**

**create table works1(ename varchar(30) NOT NULL,com\_name varchar(20),salary number(20));**

**insert into works1 values('Pravin','Tata','30000');**

**insert into works1 values('Vikas','Tata','50000');**

**insert into works1 values('yash','Reliance','33000');**

**insert into works1 values('Mahesh','Reliance','31000');**

**insert into works1 values('Omkar','First Bank','28000');**

**insert into works1 values('Manav','First Bank','29000');**

**insert into works1 values('Subham','Tata','18000');**

**select \* from works1;**

**create table company1(com\_name varchar(20) primary key, city varchar(20));**

**insert into company1 values('Tata','Mumbai');**

**insert into company1 values('Reliance','Mumbai');**

**insert into company1 values('First Bank','Pune');**

**select \* from company1;**

**create table manages(ename varchar(20),mag\_name varchar(10));**

**insert into manages values('Pravin','Manav');**

**insert into manages values('Vikas','Subham');**

**insert into manages values('yash','Mahesh');**

**insert into manages values('Mahesh','Omkar');**

**insert into manages values('Omkar','yash');**

**insert into manages values('Manav','Vikas');**

**insert into manages values('Subham','Pravin');**

**select \* from manages;**

**1. Find the names, street addresses, and cities of residence of all employees who work for Tata and earn more than 10,000.**

**SELECT e.ename, e.street, e.city**

**FROM employee3 e**

**JOIN works1 w ON e.ename = w.ename**

**WHERE w.com\_name = 'Tata' AND w.salary > 10000;**

**2. Find all employees in the database who do not work for Tata.**

**SELECT e.ename, e.street, e.city**

**FROM employee3 e**

**WHERE e.ename NOT IN (SELECT ename FROM works1 WHERE com\_name = 'Tata');**

**3. Find all employees in the database who earn more than every employee of Reliance.**

**SELECT e.ename, e.street, e.city, w.salary**

**FROM employee3 e, works1 w**

**where e.ename=w.ename and salary > ALL (SELECT w.salary FROM works1 w WHERE w.com\_name = 'Reliance');**

**4. Find the company with the smallest payroll.**

**SELECT com\_name, min(salary) AS total\_payroll**

**FROM works1**

**GROUP BY com\_name**

**order by total\_payroll**

**LIMIT 1;**

**5. Create a view for names and cities of residence of all employees who work for First Bank**

**Corporation.**

**CREATE VIEW First\_Bank\_Employees AS**

**SELECT e.ename, e.city**

**FROM employee3 e**

**JOIN works1 w ON e.ename = w.ename**

**WHERE w.com\_name = 'First Bank';**

**select \* from First\_Bank\_Employees;**