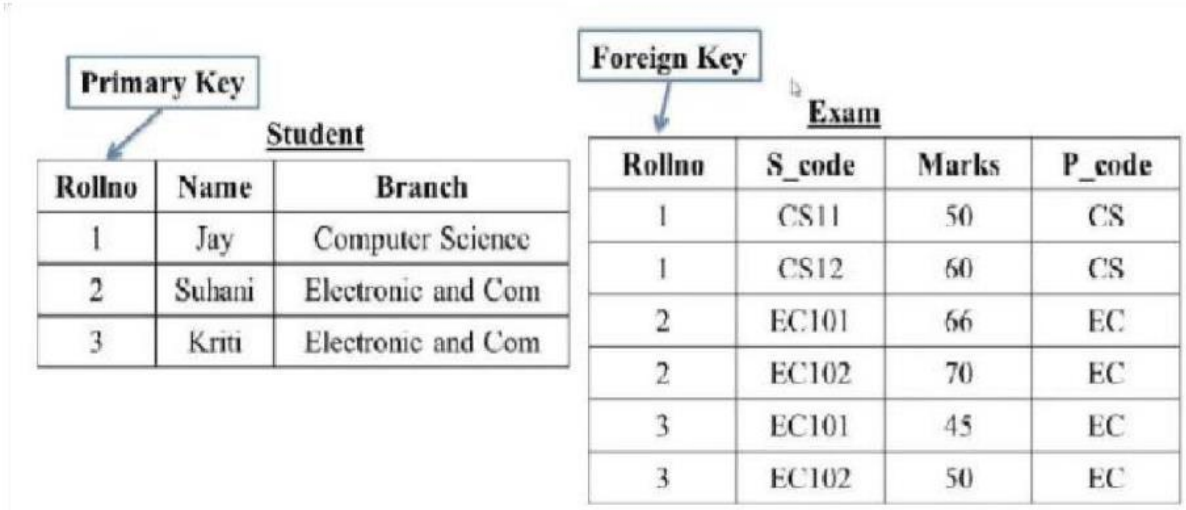
MODULE: 5 (Database)
SQL Queries

Question 1: Create Table Name: Student and Exam



Student

Rollno	Name	Branch
1	Jay	Computer Science
2	Suhani	Electronic and Com
3	Kriti	Electronic and Com

Exam

Rollno	S_code	Marks	P_code
1	CS11	50	CS
1	CS12	60	CS
2	EC101	66	EC
2	EC102	70	EC
3	EC101	45	EC
3	EC102	50	EC

Answer: Student Table Query

```
1 CREATE TABLE student
2 (
3     Roll_no int UNIQUE AUTO_INCREMENT,
4     Name Varchar(40),
5     Branch Varchar(100),
6     PRIMARY KEY (Rollo_no)
7 );
```

Exam Table Query

```
CREATE TABLE Exam
(
    Rollno int,
    S_code varchar(30),
    Marks int,
    P_code varchar(10),
    FOREIGN KEY (Rollno) REFERENCES student(Roll_no)
);
```

Question 2: Create table given below: Employee and IncentiveTable.

Employee_id	First_name	Last_name	Salary	Joining_date	Department
1	John	Abraham	1000000	01-JAN-13 12.00.00 AM	Banking
2	Michael	Clarke	800000	01-JAN-13 12.00.00 AM	Insurance
3	Roy	Thomas	700000	01-FEB-13 12.00.00 AM	Banking
4	Tom	Jose	600000	01-FEB-13 12.00.00 AM	Insurance
5	Jerry	Pinto	650000	01-FEB-13 12.00.00 AM	Insurance
6	Philip	Mathew	750000	01-JAN-13 12.00.00 AM	Services
7	TestName1	123	650000	01-JAN-13 12.00.00 AM	Services
8	TestName2	Lname%	600000	01-FEB-13 12.00.00 AM	Insurance

Name: Employee

Table Name:

Incentive

Employee_ref_id	Incentive_date	Incentive_amount
1	01-FEB-13	5000
2	01-FEB-13	3000
3	01-FEB-13	4000
1	01-JAN-13	4500
2	01-JAN-13	3500

Answer:

Employee Table Query

```sql
CREATE TABLE employee
(
    Employee_Id int UNIQUE AUTO_INCREMENT,
    First_name Varchar(40),
    Last_name varchar(40),
    Salary int,
    Joining_Date Timestamp DEFAULT CURRENT_TIMESTAMP,
    Department Varchar(40),
    PRIMARY KEY (Employee_Id)
    );
```

Incentive Table Query

```sql
CREATE TABLE Employee
(
    Employee_ref_id int NOT null,
    Incentive_date timestamp DEFAULT CURRENT_TIMESTAMP NOT null,
    Incentive_amount INT,
    FOREIGN KEY (Employee_ref_id) REFERENCES employee(Employee_id)
);
```

Question 3: Get First_Name from employee table using Tom name “Employee Name”.

Answer:

SELECT * FROM employee ORDER BY first_name ASC, salary DESC;

Question 4: Get FIRST_NAME, Joining Date, and Salary from employee table.

Answer:

```
SELECT first_name, joining_date, salary FROM employee;
```

Question 5: Get all employee details from the employee table order by First_Name ascending and Salary descending?

Answer:

```
SELECT FROM employee ORDER by first_name ASC, salary DESC;
```

Question 6: Get employee details from employee table whose first name contains 'J'.

Answer:

```
SELECT * FROM employee WHERE first_name LIKE 'J%';
```

Question 7, 8: Get department wise maximum salary from employee table order by salaryascending?

Answer:

```
SELECT department, MAX(salary)  as  max_salary FROM employee
GROUP by department ORDER BY salary ASC;
```

Question 9: Select first_name, incentive amount from employee and incentives table forthose employees who have incentives and incentive amount greater than 3000

Answer:

```sql
SELECT e.first_name, i.amount AS incentive_amount
FROM employee e
INNER JOIN incentives i ON e.employee_id = i.employee_id
WHERE i.amount > 3000;
```

Question 10: Create After Insert trigger on Employee table which insert records in viewtable

Answer:

```sql
DELIMITER $$
CREATE TRIGGER insert_into_viewtable AFTER INSERT ON employee
FOR EACH ROW
BEGIN
    INSERT INTO ViewTable (e_id, name, department, statud)
    VALUES (NEW.e_id, NEW.e_name,new.department,'Insert Record');
END;
```

Question 11: Create table given below: Salesperson and Customer

TABLE-1

TABLE NAME- SALSEPERSON

(PK)SNo	SNAME	CITY	COMM
1001	Peel	London	.12
1002	Serres	San Jose	.13
1004	Motika	London	.11
1007	Rafkin	Barcelona	.15
1003	Axelrod	New York	.1

TABLE-2

TABLE NAME- CUSTOMER

(PK)CNM.	CNAME	CITY	RATING	(FK)SNo
201	Hoffman	London	100	1001
202	Giovanne	Roe	200	1003
203	Liu	San Jose	300	1002
204	Grass	Barcelona	100	1002
206	Clemens	London	300	1007
207	Pereira	Roe	100	1004

Answer:

Salesperson Table Query:

```
CREATE table salesperson
(
      sno int UNIQUE NOT Null,
      sname varchar(30),
      city varchar (35),
      comm float,

      PRIMARY KEY (sno)
);
```

Customer Table Query:

```
CREATE table customer
(
    cno int UNIQUE NOT Null,
    cname varchar(30),
    city varchar (35),
    Rating int,
    sno int,

    PRIMARY KEY (cno),
    FOREIGN KEY (sno) REFERENCES salesperson(sno)
);
```

Question 12, 13: Retrieve the below data from above table. All orders for more than $1000.

Answer:

```sql
SELECT *
FROM customer
WHERE order_value > 1000;
```

Question 14: Names and cities of all salespeople in London with commission above 0.12.

Answer:

```sql
SELECT sname, city FROM salesperson WHERE comm >0.12;
```

Question 15: All salespeople either in Barcelona or in London.

Answer:

```sql
SELECT * FROM salesperson
WHERE city='barcelona' or city='london';
```

Question 16: All salespeople with commission between 0.10 and 0.12. (Boundary valuesshould be excluded).

Answer:

"SELECT FROM salesperson WHERE comm BETWEEN 0.10 AND 0.12;"

Question 17: All customers excluding those with rating <= 100 unless they are located in Rome

Answer:

```sql
SELECT *
FROM customer
WHERE Rating <= 100 OR city = 'Rome';
```

Question 18: Write a SQL statement that displays all the information about all salespeople

salesman_id	name	city	commission
5001	James Hoog	New York	0.15
5002	Nail Knite	Paris	0.13
5005	Pit Alex	London	0.11
5006	Mc Lyon	Paris	0.14
5007	Paul Adam	Rome	0.13
5003	Lauson Hen	San Jose	0.12

Answer:

"SELECT * FROM salespeople;"

Question 19: From the following table, write a SQL query to find orders that are delivered by a salesperson with ID. 5001. Return ord_no, ord_date, purch_amt.

Sample table: orders

ord_no	purch_amt	ord_date	customer_id	salesman_id
70001	150.5	2012-10-05	3005	5002
70009	270.65	2012-09-10	3001	5005
70002	65.26	2012-10-05	3002	5001
70004	110.5	2012-08-17	3009	5003
70007	948.5	2012-09-10	3005	5002
70005	2400.6	2012-07-27	3007	5001
70008	5760	2012-09-10	3002	5001
70010	1983.43	2012-10-10	3004	5006
70003	2480.4	2012-10-10	3009	5003
70012	250.45	2012-06-27	3008	5002
70011	75.29	2012-08-17	3003	5007
70013	3045.6	2012-04-25	3002	5001

Answer:

```
1 SELECT ord_no, ord_date, purch_amt
2 FROM orders
3 WHERE salesman_id = 5001;
```

Question 20: From the following table, write a SQL query to select a range of products whose price is in the range Rs.200 to Rs.600. Begin and end values are included. Return pro_id, pro_name, pro_price, and pro_com.

Sample table: item_mast

PRO_ID	PRO_NAME	PRO_PRICE	PRO_COM
101	Mother Board	3200.00	15
102	Key Board	450.00	16
103	ZIP drive	250.00	14
104	Speaker	550.00	16
105	Monitor	5000.00	11
106	DVD drive	900.00	12
107	CD drive	800.00	12
108	Printer	2600.00	13
109	Refill cartridge	350.00	13
110	Mouse	250.00	12

Answer:

```
1 SELECT PRO_ID, PRO_NAME, PRO_PRICE, PRO_COM
2 FROM item_mast
3 WHERE PRO_PRICE BETWEEN 200 AND 600;
```

Question 21: From the following table, write a SQL query to calculate the average price for a manufacturer code of 16. Return avg.

Sample table: item_mast

PRO_ID	PRO_NAME	PRO_PRICE	PRO_COM
101	Mother Board	3200.00	15
102	Key Board	450.00	16
103	ZIP drive	250.00	14
104	Speaker	550.00	16
105	Monitor	5000.00	11
106	DVD drive	900.00	12
107	CD drive	800.00	12
108	Printer	2600.00	13
109	Refill cartridge	350.00	13
110	Mouse	250.00	12

Answer:

```
1 SELECT AVG(PRO_PRICE) AS avg
2 FROM item_mast
3 WHERE PRO_COM = 16;
```

Question 22: From the following table, write a SQL query to display the pro_name as 'Item Name' and pro_priceas 'Price in Rs.'

Sample table: item_mast

PRO_ID	PRO_NAME	PRO_PRICE	PRO_COM
101	Mother Board	3200.00	15
102	Key Board	450.00	16
103	ZIP drive	250.00	14
104	Speaker	550.00	16
105	Monitor	5000.00	11
106	DVD drive	900.00	12
107	CD drive	800.00	12
108	Printer	2600.00	13
109	Refill cartridge	350.00	13
110	Mouse	250.00	12

Answer:

```
1 SELECT PRO_NAME AS 'Item Name',
2 CONCAT('Price in Rs. ', FORMAT(PRO_PRICE, 2))
3 AS 'Price in Rs.'
4 FROM item mast;
```

Question 23: From the following table, write a SQL query to find the items whose prices are higher than or equal to $250. Order the result by product price in descending, then product name in ascending. Return pro_name and pro_price.

Sample table: item_mast

PRO_ID	PRO_NAME	PRO_PRICE	PRO_COM
101	Mother Board	3200.00	15
102	Key Board	450.00	16
103	ZIP drive	250.00	14
104	Speaker	550.00	16
105	Monitor	5000.00	11
106	DVD drive	900.00	12
107	CD drive	800.00	12
108	Printer	2600.00	13
109	Refill cartridge	350.00	13
110	Mouse	250.00	12

Answer:

```sql
SELECT PRO_NAME, PRO_PRICE
FROM item_mast
WHERE PRO_PRICE >= 250.00
ORDER BY PRO_PRICE DESC, PRO_NAME ASC;
```

Question 24: From the following table, write a SQL query to calculate average price of the items for each company. Return average price and company code.

Sample table: item_mast

PRO_ID	PRO_NAME	PRO_PRICE	PRO_COM
101	Mother Board	3200.00	15
102	Key Board	450.00	16
103	ZIP drive	250.00	14
104	Speaker	550.00	16
105	Monitor	5000.00	11
106	DVD drive	900.00	12
107	CD drive	800.00	12
108	Printer	2600.00	13
109	Refill cartridge	350.00	13
110	Mouse	250.00	12

Answer:

```
1 SELECT PRO_COM AS Company_Code, AVG(PRO_PRICE) AS Average_Price
2 FROM Item_mast
3 GROUP BY PRO_COM;
```