**CODINGCHALLENGE1**

**CREATING TABLES**

CREATE TABLE CUSTOMERS (

ID INT NOT NULL,

NAME VARCHAR (20) NOT NULL,

AGE INT NOT NULL,

ADDRESS CHAR (25),

SALARY DECIMAL (18, 2),

PRIMARY KEY (ID)

);

INSERT INTO CUSTOMERS VALUES

(1, 'Ramesh', 32, 'Ahmedabad', 2000.00),

(2, 'Khilan', 25, 'Delhi', 1500.00),

(3, 'Kaushik', 23, 'Kota', 2000.00),

(4, 'Chaitali', 25, 'Mumbai', 6500.00),

(5, 'Hardik', 27, 'Bhopal', 8500.00),

(6, 'Komal', 22, 'Hyderabad', 4500.00),

(7, 'Muffy', 24, 'Indore', 10000.00);

CREATE TABLE ORDERS (

OID INT NOT NULL,

DATE VARCHAR (20) NOT NULL,

CUSTOMER\_ID INT NOT NULL,

AMOUNT DECIMAL (18, 2)

);

INSERT INTO ORDERS VALUES

(102, '2009-10-08 00:00:00', 3, 3000.00),

(100, '2009-10-08 00:00:00', 3, 1500.00),

(101, '2009-11-20 00:00:00', 2, 1560.00),

(103, '2008-05-20 00:00:00', 4, 2060.00);

**INNER JOIN**

SELECT ID, NAME, AMOUNT, DATE

FROM CUSTOMERS

INNER JOIN ORDERS

ON CUSTOMERS.ID = ORDERS.CUSTOMER\_ID;

**LEFT JOIN**

SELECT ID, NAME, AMOUNT, DATE

FROM CUSTOMERS

LEFT JOIN ORDERS

ON CUSTOMERS.ID = ORDERS.CUSTOMER\_ID;

**RIGHT JOIN**

SELECT ID, NAME, AMOUNT, DATE

FROM CUSTOMERS

RIGHT JOIN ORDERS

ON CUSTOMERS.ID = ORDERS.CUSTOMER\_ID;

**CROSS JOIN**

SELECT ID, NAME, AMOUNT, DATE

FROM CUSTOMERS

CROSS JOIN ORDERS;

**SELF JOIN**

SELECT a.ID, b.NAME as EARNS\_HIGHER, a.NAME as EARNS\_LESS, a.SALARY as LOWER\_SALARY

FROM CUSTOMERS a, CUSTOMERS b

WHERE a.SALARY < b.SALARY

ORDER BY a.SALARY;

**AGGREGATE FUNCTION**

**AVERAGE**

SELECT AVG(SALARY) AS avg\_salary FROM customers;

**COUNT**

SELECT COUNT(AGE) AS num\_age FROM customers;

**SUM**

SELECT SUM(SALARY) as total\_salary from customers;

**SUBTOTALS**

SELECT ID,SUM(Salary) AS TotalSalary FROM customers

GROUP BY ID;

**OVER AND PARTITON BY**

SELECT OID, AVG(AMOUNT) OVER(PARTITION BY OID) AS AVG\_AMOUNT

FROM orders;