**MCAC104**

**DATABASE SYSTEM**

**ASSIGNMENT 3**

**SUBMITTED BY**

**GAURAV**

**MCA(1st SEM)**

**a).Identify primary and foreign keys.**

PRIMARY KEYS : suppliers(Sno),Parts(pno),Project(Jno)

Foreign KEYS : Shipment(Sno,Pno,Jno)

**b).Get supplier numbers for suppliers in Paris with status>20.**

mysql> SELECT sno FROM suppliers WHERE scity="paris" AND status > 20;

+-----+

| sno |

+-----+

| s1 |

| s4 |

+-----+

**c). Get suppliers details for suppliers who supply part P2. Display the supplier list in increasing order**

mysql> SELECT S.sno,S.sname,S.status,S.scity FROM suppliers as S,shipment as SH WHERE S.sno = SH.sno AND SH.PNO = "P2" ORDER BY S.sno ASC;

+-----+-------+--------+--------+

| sno | sname | status | scity |

+-----+-------+--------+--------+

| s2 | Nancy | 20.00 | London |

+-----+-------+--------+--------+

**d).Get suppliers names for suppliers who do not supply part P2.**

mysql> SELECT suppliers.\* FROM suppliers JOIN shipment ON suppliers.sno = shipment.sno AND shipment.pno!="P2";

+-----+-------+--------+----------+

| sno | sname | status | scity |

+-----+-------+--------+----------+

| s1 | Ajay | 30.00 | Paris |

| s3 | Ram | 40.00 | New York |

| s4 | Isha | 70.00 | Paris |

| s5 | Ayush | 30.00 | Delhi |

| s6 | Hema | 10.00 | Chennai |

| s7 | Seema | 45.00 | London |

| s8 | Riya | 23.00 | Ontario |

+-----+-------+--------+----------+

7 rows in set (0.00 sec)

**e).For each shipment get full shipment details, including total shipment weights.**

mysql> SELECT suppliers.\*, parts.\*, project.\*, shipment.qty \* parts.weight AS total\_weight FROM suppliers, parts, project, shipment WHERE shipment.sno = suppliers.sno AND shipment.pno = parts.pno AND shipment.jno = project.jno;

+-----+-------+--------+----------+-----+-------+--------+--------+---------+-----+-------+----------+--------------+

| sno | sname | status | scity | pno | pname | colour | weight | city | jno | jname | jcity | total\_weight |

+-----+-------+--------+----------+-----+-------+--------+--------+---------+-----+-------+----------+--------------+

| s1 | Ajay | 30.00 | Paris | p1 | A | red | 7.00 | Paris | j1 | j | Chennai | 2800 |

| s2 | Nancy | 20.00 | London | p2 | B | blue | 20.00 | London | j2 | K | London | 10000 |

| s3 | Ram | 40.00 | New York | p3 | c | green | 17.00 | Newyork | j3 | L | Paris | 5950 |

| s4 | Isha | 70.00 | Paris | p4 | D | black | 21.00 | Paris | j4 | M | Ontario | 2100 |

| s5 | Ayush | 30.00 | Delhi | p5 | E | red | 9.00 | Ontario | j5 | N | Delhi | 1800 |

| s6 | Hema | 10.00 | Chennai | p6 | F | grey | 10.00 | Delhi | j6 | O | Chennai | 6000 |

| s7 | Seema | 45.00 | London | p7 | G | silver | 18.00 | Chennai | j7 | P | London | 12600 |

| s8 | Riya | 23.00 | Ontario | p8 | H | red | 7.00 | Delhi | j8 | Q | New York | 1750 |

+-----+-------+--------+----------+-----+-------+--------+--------+---------+-----+-------+----------+--------------+6 rows in set (0.00 sec)

**f). Get all the shipments where the quantity is in the range 300 to 750 inclusive.**

mysql> SELECT \* FROM shipment WHERE qty BETWEEN 300 AND 750;

+-----+------+------+------+

| sno | pno | jno | qty |

+-----+------+------+------+

| S1 | P1 | J1 | 400 |

| S2 | P2 | J2 | 500 |

| S3 | P3 | J3 | 350 |

| S6 | P6 | J6 | 600 |

| S7 | P7 | J7 | 700 |

+-----+------+------+------+

5 rows in set (0.00 sec)

**g). Get part nos. for parts that either weigh more than 16 pounds or are supplied by suppliers S2, or both.**

mysql> SELECT pno FROM parts WHERE weight > 16 OR pno IN (SELECT pno FROM shipment WHERE sno = 'S2');

+-----+

| pno |

+-----+

| p2 |

| p3 |

| p4 |

| p7 |

+-----+

4 rows in set (0.00 sec)

**h).Get the names of cities that store more than five red parts.**

mysql> SELECT city FROM parts WHERE colour = 'red' GROUP BY city HAVING COUNT(\*) > 5;

Empty set (0.00 sec)

5 rows in set (0.00 sec)

**i). Get full details of parts supplied by a supplier in London.**

mysql> SELECT p.\* FROM parts AS p, suppliers AS s, shipment AS sh WHERE sh.sno = s.sno AND sh.pno = p.pno AND s.scity = 'London';

+-----+-------+--------+--------+---------+

| pno | pname | colour | weight | city |

+-----+-------+--------+--------+---------+

| p2 | B | blue | 20.00 | London |

| p7 | G | silver | 18.00 | Chennai |

+-----+-------+--------+--------+---------+

2 rows in set (0.00 sec)

**j).Get part numbers for part supplied by a supplier in London to a project in London**

mysql> SELECT p.pno FROM parts AS p, suppliers AS s, shipment AS sh WHERE sh.sno = s.sno AND sh.pno = p.pno AND s.scity = 'London' AND p.city = 'London';

+-----+

| pno |

+-----+

| p2 |

+-----+

1 row in set (0.00 sec)

**k). Get the total number of project supplied by a supplier (say, S1).**

mysql> SELECT sno, COUNT(jno) FROM shipment GROUP BY sno;

+-----+------------+

| sno | COUNT(jno) |

+-----+------------+

| S1 | 1 |

| S2 | 1 |

| S3 | 1 |

| S4 | 1 |

| S5 | 1 |

| S6 | 1 |

| S7 | 1 |

| S8 | 1 |

+-----+------------+

8 rows in set (0.00 sec)

**1).Get the total quantity of a part (say, PI) supplied by a supplier (say, S1).**

mysql> SELECT shipment.sno, shipment.pno, shipment.qty \* parts.weight AS total\_quantity FROM shipment JOIN parts ON parts.pno = shipment.pno;

+-----+------+----------------+

| sno | pno | total\_quantity |

+-----+------+----------------+

| S1 | P1 | 2800 |

| S2 | P2 | 10000 |

| S3 | P3 | 5950 |

| S4 | P4 | 2100 |

| S5 | P5 | 1800 |

| S6 | P6 | 6000 |

| S7 | P7 | 12600 |

| S8 | P8 | 1750 |

+-----+------+----------------+

8 rows in set (0.00 sec)