**Lab 2**

**Name : Gandhi , Pritesh**

11. Get part numbers for parts shipped to any job by a supplier in the same city as that job.

Query:

SELECT DISTINCT SP.PNUM

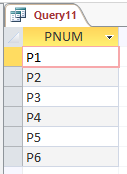
FROM SHIPMENT AS SP, SUPPLIER AS S, JOB AS J

WHERE SP.SNUM=S.SNUM

AND SP.JNUM=J.JNUM

AND S.CITY=J.CITY;

Result:



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12. Get job numbers for jobs that receive shipment(s) from at least one supplier not in the same city as that job.

Query:

SELECT DISTINCT J.JNUM

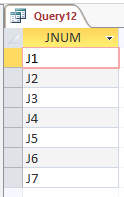
FROM JOB AS J, SHIPMENT AS SP, SUPPLIER AS S

WHERE J.JNUM=SP.JNUM

AND S.SNUM=SP.SNUM

AND J.CITY<>S.CITY;

Result:



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13. Get all pairs of part numbers such that some supplier ships both the indicated parts.

Query:

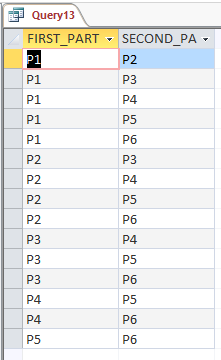
SELECT DISTINCT SP\_FIRST.PNUM AS FIRST\_PART, SP\_SECOND.PNUM AS SECOND\_PART

FROM SHIPMENT AS SP\_FIRST, SHIPMENT AS SP\_SECOND

WHERE SP\_FIRST.SNUM=SP\_SECOND.SNUM

AND SP\_FIRST.PNUM < SP\_SECOND.PNUM;

Result:



Cardinality:



14. Get the total number of jobs that receive shipments from supplier S5.

Query:

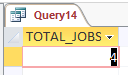
SELECT COUNT(SP.JNUM) AS TOTAL\_JOBS

FROM (SELECT DISTINCT JNUM

FROM SHIPMENT

WHERE SNUM='S5') AS SP;

Result:



Cardinality:



15. Get the total quantity of part P1 shipped by supplier S1.

Query:

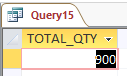
SELECT SUM(QTY) AS TOTAL\_QTY

FROM SHIPMENT

WHERE PNUM='P1'

AND SNUM='S1';

Result:



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16. For each part being shipped to a job, get the part number, the job number, and the corresponding total quantity.

Query:

SELECT SP.PNUM, SP.JNUM, SUM(SP.QTY) AS TOTAL\_QTY

FROM SHIPMENT AS SP

GROUP BY SP.PNUM, SP.JNUM;

Cardinality:



17. Get part numbers of parts shipped to some job in an average quantity of more than 320.

Query:

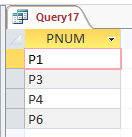
SELECT SP.PNUM

FROM SHIPMENT AS SP

GROUP BY SP.PNUM

HAVING AVG(SP.QTY)>320;

Result:



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18. Get job names for jobs that receive shipment(s) from supplier S1.

Query:

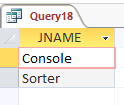
SELECT DISTINCT J.JNAME

FROM JOB AS J, SHIPMENT AS SP

WHERE J.JNUM=SP.JNUM

AND SP.SNUM='S1';

Result:



Cardinality:



19. Get colors of parts shipped by supplier S1.

Query:

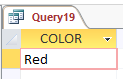
SELECT DISTINCT P.COLOR

FROM SHIPMENT AS SP, PART AS P

WHERE SP.PNUM=P.PNUM

AND SP.SNUM='S1';

Result:



Cardinality:

20. Get part numbers for parts shipped to any job in London.

Query:

SELECT DISTINCT P.PNUM

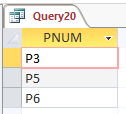
FROM PART AS P, SHIPMENT AS SP, JOB AS J

WHERE P.PNUM=SP.PNUM

AND J.JNUM=SP.JNUM

AND J.CITY='London';

Result:



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