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Database Management

Section 902

Dr.Schwartz

Lab 1

Query 0 Vendors:

Full detail of vendors table sorted by primary key.

SQL Statement:

```
SELECT V.*  
FROM VENDORS V  
ORDER BY V.VNUM;
```

Table:

VNUM	VENDORNAME	REGION	HQLOC
V10	SnackMeister	10	LosAngeles
V20	CostMore	20	Seattle
V30	ScamsClub	30	Seattle
V40	Scamazon	50	LosAngeles
V50	HomerClub	30	Miami

Cardinality: 5

Query 0 Snacks:

Full detail of snacks table sorted by primary key.

SQL Statement:

```
SELECT S.*  
  
FROM SNACKS S  
  
ORDER BY S.SNUM;
```

Table:

SNUM	SNACKNAME	PRICE	QTY	SOURCECITY
S10	Pickles	14.99	120	LosAngeles
S20	Hamburgers	24.99	60	Seattle
S30	HotDogs	19.99	80	NewOrleans
S40	Chips	14.99	150	LosAngeles
S50	Nachos	19.99	100	Seattle
S60	Pretzels	14.99	40	LosAngeles

Cardinality: 6

Query 0 Parks:

Full detail of parks table sorted by primary key.

SQL Statement:

```
SELECT P.*  
  
FROM PARKS P  
  
ORDER BY P.PNUM;
```

Table:

PNUM	PARKNAME	CAPACITY	LOCATION
P100	OraclePark	5500	Seattle
P200	MySQLPark	20400	NewOrleans
P300	MongoField	5500	Miami
P400	PostgreSQLPark	13600	Miami
P500	DB2Field	8300	LosAngeles
P600	AccessStadium	6300	Poughkeepsie
P700	TeradataField	11100	LosAngeles

Cardinality: 7

Query 0 Delivers:

Full detail of delivers table sorted by primary keys.

SQL Statement:

```
SELECT D.*  
  
FROM DELIVERS D  
  
ORDER BY D.VNUM , D.SNUM , D.PNUM;
```

Table:

VNUM	SNUM	PNUM	AMOUNT
V10	S10	P100	200
V10	S10	P400	700
V20	S30	P100	400
V20	S30	P200	200
V20	S30	P300	200
V20	S30	P400	500
V20	S30	P500	600
V20	S30	P600	400
V20	S30	P700	800
V20	S50	P200	100
V30	S30	P100	200
V30	S40	P200	500
V40	S60	P300	300
V40	S60	P700	300
V50	S10	P400	100
V50	S20	P200	200
V50	S20	P400	100
V50	S30	P400	200
V50	S40	P400	800
V50	S50	P400	400
V50	S50	P500	500
V50	S50	P700	100
V50	S60	P200	200
V50	S60	P400	500

Cardinality: 24

Query 1:

Full detail of parks located in LosAngeles

SQL Statement:

SELECT P.*

FROM PARKS P

WHERE LOCATION = 'LosAngeles';

Table:

PNUM	PARKNAME	CAPACITY	LOCATION
P500	DB2Field	8300	LosAngeles
P700	TeradataField	11100	LosAngeles

Cardinality: 2

Query 2:

Vendor numbers of vendors that deliver to Park P100

SQL Statement:

```
SELECT V.VNUM
FROM VENDORS V, PARKS P, DELIVERS D
WHERE V.VNUM = D.VNUM
AND P.PNUM = D.PNUM
AND P.PNUM = 'P100';
```

Table:

VNUM
V10
V20
V30

Cardinality: 3

Query 3:

Full details of every delivery with an amount in the range 300-750.

SQL Statement:

```
SELECT D.*  
FROM DELIVERS D  
WHERE D.AMOUNT <= 750  
AND D.AMOUNT >= 300;
```

Table:

VNUM	SNUM	PNUM	AMOUNT
V10	S10	P400	700
V20	S30	P100	400
V20	S30	P400	500
V20	S30	P500	600
V20	S30	P600	400
V30	S40	P200	500
V40	S60	P300	300
V40	S60	P700	300
V50	S50	P400	400
V50	S50	P500	500
V50	S60	P400	500

Cardinality: 11

Query 4:

All price and source city combinations from snacks table.

SQL Statement:

```
SELECT S.PRICE, S.SOURCECITY  
  
FROM SNACKS S;
```

Table:

PRICE	SOURCECITY
14.99	LosAngeles
24.99	Seattle
19.99	NewOrleans
14.99	LosAngeles
19.99	Seattle
14.99	LosAngeles

Cardinality: 6

Query 5:

Vendor, snacks and parks number triples that are all co-located.

SQL Statement:

```
SELECT V.VNUM, S.SNUM, P.PNUM  
  
FROM VENDORS V, SNACKS S, PARKS P  
  
WHERE V.HQLOC = S.SOURCECITY  
  
AND S.SOURCECITY = P.LOCATION;
```

Table:

VNUM	SNUM	PNUM
V10	S10	P500
V10	S40	P500
V10	S60	P500
V10	S10	P700
V10	S40	P700
V10	S60	P700
V20	S20	P100
V20	S50	P100
V30	S20	P100
V30	S50	P100
V40	S10	P500
V40	S40	P500
V40	S60	P500
V40	S10	P700
V40	S40	P700
V40	S60	P700

Cardinality: 16

Query 6:

Vendor, snacks and parks number triples that not all co-located.

SQL Statement:

```
SELECT V.VNUM, S.SNUM, P.PNUM
FROM VENDORS V, SNACKS S, PARKS P
WHERE V.HQLOC <> P.LOCATION
AND V.HQLOC <> S.SOURCECITY;
```

Table:

Over 30

Cardinality: 50

Query 7:

Vendor, snacks and parks number triples that no two are all co-located.

SQL Statement:

```
SELECT V.VNUM, S.SNUM, P.PNUM
FROM VENDORS V, SNACKS S, PARKS P
WHERE V.HQLOC <> P.LOCATION
AND V.HQLOC <> S.SOURCECITY
AND P.LOCATION <> S.SOURCECITY;
```

Table:

Over 30

Cardinality: 79

Query 8:

Snack numbers for snacks that are delivered by vendor who is in LosAngeles.

SQL Statement:

```
SELECT DISTINCT S.SNUM
FROM SNACKS S, VENDORS V, DELIVERS D
WHERE S.SNUM = D.SNUM
AND V.VNUM = D.VNUM
AND V.HQLOC = 'LosAngeles';
```

Table:

SNUM
S10
S60

Cardinality: 2

Query 9:

Snack numbers for snacks that are delivered to a park in LosAngeles by a vendor who is in LosAngeles.

SQL Statement:

```
SELECT DISTINCT S.SNUM
FROM SNACKS S, VENDORS V, PARKS P, DELIVERS D
WHERE S.SNUM = D.SNUM
AND V.VNUM = D.VNUM
AND P.PNUM = D.PNUM
AND V.HQLOC = 'LosAngeles'
AND P.LOCATION = 'LosAngeles';
```

Table:

SNUM
S60

Cardinality: 1

Query 10:

All pairs of city names that a vendor from the first city delivers something to a park located in the second city.

SQL Statement:

```
SELECT V.HQLOC, P.LOCATION
FROM VENDORS V, PARKS P, DELIVERS D
WHERE P.PNUM = D.PNUM
AND V.VNUM = D.VNUM;
```

Table:

HQLOC	LOCATION
LosAngeles	Seattle
Seattle	Seattle
Seattle	Seattle
Seattle	NewOrleans
Seattle	NewOrleans
Seattle	NewOrleans
Miami	NewOrleans
Miami	NewOrleans
Seattle	Miami
LosAngeles	Miami
LosAngeles	Miami
Seattle	Miami
Miami	Miami
Miami	Miami
Miami	Miami
Miami	Miami
Miami	Miami
Miami	Miami
Seattle	LosAngeles
Miami	LosAngeles
Seattle	Poughkeepsie
Seattle	LosAngeles
LosAngeles	LosAngeles
Miami	LosAngeles

Cardinality: 24