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Retro Video Games Lab 3a

Database Management 308N-113

Query21

Name the consoles that have at least one game that was played by Sheldon.

```
SELECT C.ConsoleName
FROM Consoles AS C, Plays AS P, Users AS U
WHERE U.UNum = P.UNum
AND C.CNum = P.CNum
AND U.UserName = 'Sheldon';
```

Query21
ConsoleName
Atari
PlayStation
Cardinality: 2

Query22

Get user numbers for users who have a Mastery lower than that of Sheldon.

```
SELECT U2.UNum
FROM Users AS U1, Users AS U2
WHERE U1.UserName = 'Sheldon'
AND U2.Mastery < U1.Mastery;
```

Query22
UNum
U20

Cardinality: 1

Query23

Get console numbers for consoles whose Manufacturer Location is first in the alphabetic list of such cities.

```
SELECT C.CNum
FROM Consoles AS C
WHERE C.ManuLoc IN
    (SELECT MIN(C.ManuLoc)
     FROM Consoles AS C);
```

Query23

CNum
C1

Cardinality: 1

Query24

Get console numbers for consoles that have plays of game G100 in an average TimesPlayed less than the greatest TimesPlayed for any game played on console C1.

```
SELECT P.CNum
FROM Plays AS P
WHERE P.GNum = 'G100'
GROUP BY P.CNum
HAVING AVG(P.TimesPlayed) <
    (SELECT Max(Plays.TimesPlayed)
     FROM Plays
     WHERE Plays.CNum = 'C1');
```

Query24

CNum
C1
C4

Cardinality: 1

Query25

Get user numbers for users that played game G100 on some console in a TimesPlayed greater than the average TimesPlayed of game G100 for that console.

```
SELECT DISTINCT P.UNum
FROM Plays AS P
GROUP BY P.UNum, P.GNum
HAVING P.GNum = 'G100'
AND SUM(TimesPlayed)>
    (SELECT AVG(TimesPlayed)
     FROM Plays
     GROUP BY Plays.GNum
     HAVING Plays.GNum = 'G100')
```

Query25
UNum
U10

Cardinality: 1

Query26

Name the cities with which at least one user, game, or console is associated.

```
SELECT U.Hometown AS Cities
FROM Users AS U
```

UNION

```
SELECT G.CityCreated
FROM Games AS G
```

```
UNION SELECT C.ManuLoc
FROM Consoles AS C
```

Query26
Cities
NewYork
Peking
Poughkeepsie
Seattle
Tokyo
Cardinality: 5

Query27

Get game numbers for games that were played either by a user from Tokyo or on a console manufactured in Tokyo.

```
SELECT DISTINCT P.GNum
FROM Users AS U, Plays AS P, Consoles AS C
WHERE U.UNum = P.UNum
AND C.CNum = P.CNum
AND (U.hometown = 'Tokyo'
OR C.ManuLoc = 'Tokyo');
```

Query27
GNum
G100
G300
G500
G600
Cardinality: 4