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DBMS LAB 1

CSE Department

FOR QUESTION 1-5

CODE FOR TABLE

```
1 CREATE TABLE Warehouses (  
2     Code INTEGER PRIMARY KEY NOT NULL,  
3     Location varchar(250) NOT NULL ,  
4     Capacity INTEGER NOT NULL  
5 );  
6  
7 CREATE TABLE Boxes (  
8     Code varchar(250) PRIMARY KEY NOT NULL,  
9     Contents varchar(250) NOT NULL ,  
10    Value REAL NOT NULL ,  
11    Warehouse INTEGER NOT NULL,  
12    CONSTRAINT fk_Warehouses_Code FOREIGN KEY (Warehouse) REFERENCES Warehouses(Code)  
13 );
```

```
14 INSERT INTO Warehouses(Code,Location,Capacity) VALUES(1,'Hyderabad',3);  
15 INSERT INTO Warehouses(Code,Location,Capacity) VALUES(2,'Chennai',4);  
16 INSERT INTO Warehouses(Code,Location,Capacity) VALUES(3,'Kolkata',7);  
17 INSERT INTO Warehouses(Code,Location,Capacity) VALUES(4,'Mumbai',2);  
18 INSERT INTO Warehouses(Code,Location,Capacity) VALUES(5,'Delhi',8);  
19  
20 INSERT INTO Boxes(Code,Contents,Value,Warehouse) VALUES('9AB','Lays',1260,3);  
21 INSERT INTO Boxes(Code,Contents,Value,Warehouse) VALUES('1NM','Lays',440,1);  
22 INSERT INTO Boxes(Code,Contents,Value,Warehouse) VALUES('6RT','Maggi',90,4);  
23 INSERT INTO Boxes(Code,Contents,Value,Warehouse) VALUES('7GG','Lays',300,1);  
24 INSERT INTO Boxes(Code,Contents,Value,Warehouse) VALUES('8JN','Maggi',255,1);  
25 INSERT INTO Boxes(Code,Contents,Value,Warehouse) VALUES('8YU','Kurkure',180,3);  
26 INSERT INTO Boxes(Code,Contents,Value,Warehouse) VALUES('9JG','Kurkure',475,2);  
27 INSERT INTO Boxes(Code,Contents,Value,Warehouse) VALUES('4LL','Lays',360,4);  
28 INSERT INTO Boxes(Code,Contents,Value,Warehouse) VALUES('0HJ','Bingo',75,1);  
29 INSERT INTO Boxes(Code,Contents,Value,Warehouse) VALUES('2TP','Bingo',180,2);  
30 INSERT INTO Boxes(Code,Contents,Value,Warehouse) VALUES('5TU','KitKat',225,5);  
31  
32
```

Queries

1)

```
SELECT * FROM Boxes  
WHERE Value > 150;
```

```
</> Code >_ Output Run Save

9AB|Lays|1260.0|3
1NM|Lays|440.0|1
7GG|Lays|300.0|1
8JN|Maggi|255.0|1
8YU|Kurkure|180.0|3
9JG|Kurkure|475.0|2
4LL|Lays|360.0|4
2TP|Bingo|180.0|2
5TU|KitKat|225.0|5

[Program exited with exit code 0]
```

2) SELECT Warehouse, AVG(Value)

FROM Boxes

GROUP BY Warehouse;

```
</> Code >_ Output Run Save

1|267.5
2|327.5
3|720.0
4|225.0
5|225.0

[Program exited with exit code 0]
```

3) UPDATE Boxes SET Value = Value * 0.85;

SELECT Code,Contents, Value,Warehouse FROM Boxes;

```
</> Code >_ Output Run Save

9AB|Lays|1071.0|3
1NM|Lays|374.0|1
6RT|Maggi|76.5|4
7GG|Lays|255.0|1
8JN|Maggi|216.75|1
8YU|Kurkure|153.0|3
9JG|Kurkure|403.75|2
4LL|Lays|306.0|4
0HJ|Bingo|63.75|1
2TP|Bingo|153.0|2
5TU|KitKat|191.25|5

[Program exited with exit code 0]
```

4) SELECT Code

```
FROM Warehouses
WHERE Capacity <
(
    SELECT COUNT(*)
    FROM Boxes
    WHERE Warehouse = Warehouses.Code
);
```

</> Code >_ Output ▶ Run 📄 Save

1
[Program exited with exit code 0]

5)

```
DELETE FROM Boxes WHERE Warehouse IN
(
    SELECT Code
    FROM Warehouses
    WHERE Capacity <
    (
        SELECT COUNT(*)
        FROM Boxes
        WHERE Warehouse = Warehouses.Code
    )
);
```

```
Select Code,Contents,Value,Warehouse FROM Boxes;
```

</> Code

>_ Output

Run

Save

```
9AB|Lays|1260.0|3
6RT|Maggi|90.0|4
8YU|Kurkure|180.0|3
9JG|Kurkure|475.0|2
4LL|Lays|360.0|4
2TP|Bingo|180.0|2
5TU|KitKat|225.0|5

[Program exited with exit code 0]
```

FOR QUESTION 6-10

CODE FOR TABLE

```
1 CREATE TABLE Movies (
2     Code INTEGER PRIMARY KEY NOT NULL,
3     Title TEXT NOT NULL,
4     Rating TEXT
5 );
6
7 CREATE TABLE MovieTheaters (
8     Code INTEGER PRIMARY KEY NOT NULL,
9     Name TEXT NOT NULL,
10    Movie INTEGER
11    CONSTRAINT fk_Movies_Code REFERENCES Movies(Code)
12 );
13
14 INSERT INTO Movies(Code,Title,Rating) VALUES(1,'Avengers','B');
15 INSERT INTO Movies(Code,Title,Rating) VALUES(2,'The Shawshank Redemption','A');
16 INSERT INTO Movies(Code,Title,Rating) VALUES(3,'The Dark Knight','A');
17 INSERT INTO Movies(Code,Title,Rating) VALUES(4,'RADHE',NULL);
18 INSERT INTO Movies(Code,Title,Rating) VALUES(5,'SPIDERMAN HOMECOMING',NULL);
19 INSERT INTO Movies(Code,Title,Rating) VALUES(6,'RACE 3','NC-17');
20 INSERT INTO Movies(Code,Title,Rating) VALUES(7,'Schindler's List','A');
21
22
23 INSERT INTO MovieTheaters(Code,Name,Movie) VALUES(1,'IMAX',NULL);
24 INSERT INTO MovieTheaters(Code,Name,Movie) VALUES(2,'PVR',NULL);
25 INSERT INTO MovieTheaters(Code,Name,Movie) VALUES(3,'Majestic',5);
26 INSERT INTO MovieTheaters(Code,Name,Movie) VALUES(4,'MTR',6);
27 INSERT INTO MovieTheaters(Code,Name,Movie) VALUES(5,'Pheonix',NULL);
28 INSERT INTO MovieTheaters(Code,Name,Movie) VALUES(6,'INOX',1);
29
```

Queries

6)

```
SELECT *  
FROM MovieTheaters  
WHERE Movie IS NULL;
```

Enter a title... SQL ▾

Code Output Run Save

```
1|IMAX|  
2|PVR|  
5|Pheonix|  
  
[Program exited with exit code 0]
```

7)

```
INSERT INTO Movies(Title,Rating) VALUES('One, Two, Three',NULL);
```

```
SELECT Code, Title , Rating FROM Movies ;
```

Code Output Run Save

```
1|Avengers|B  
2|The Shawshank Redemption|A  
3|The Dark Knight|A  
4|RADHE|  
5|SPIDERMAN HOMECOMING|  
6|RACE 3|NC-17  
7|Schindler's List|A  
8|One, Two, Three|  
  
[Program exited with exit code 0]
```

8)

```
UPDATE Movies SET Rating='G' WHERE Rating IS NULL;
```

```
SELECT Code, Title , Rating FROM Movies WHERE rating is 'G';
```

```
</> Code >_ Output Run Save
4|RADHE|G
5|SPIDERMAN HOMECOMING|G

[Program exited with exit code 0]
```

9)

```
DELETE FROM MovieTheaters WHERE Movie IN
(SELECT Code FROM Movies WHERE Rating = 'NC-17');
```


```
SELECT Code, Title , Rating FROM Movies WHERE rating is 'NC-17';
```

```
</> Code >_ Output Run Save
6|RACE 3|NC-17

[Program exited with exit code 0]
```

10)

```
SELECT Code, Title , Rating FROM Movies
WHERE Code NOT IN
(
  SELECT Movie FROM MovieTheaters
  WHERE Movie IS NOT NULL
);
```

 Code  Output

 Run

 Save

```
2|The Shawshank Redemption|A
3|The Dark Knight|A
4|RADHE|
7|Schindler's List|A

[Program exited with exit code 0]
```