QUESTIONS;-

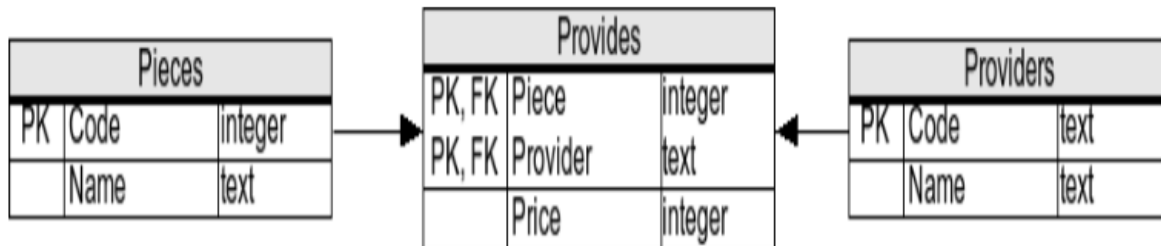**CODE-**

```
 1 ●    Create database dablb6;
 2 ●    use dablb6;
 3
 4 ● ⊖   CREATE TABLE Pieces (
 5         Code INTEGER PRIMARY KEY NOT NULL,
 6         Name TEXT NOT NULL
 7       );
 8 ● ⊖   CREATE TABLE Providers (
 9         Code VARCHAR(40)
10         PRIMARY KEY NOT NULL,
11         Name TEXT NOT NULL
12       );
13 ● ⊖   CREATE TABLE Provides (
14         Piece INTEGER,
15         FOREIGN KEY (Piece) REFERENCES Pieces(Code),
16         Provider VARCHAR(40),
17         FOREIGN KEY (Provider) REFERENCES Providers(Code),
18         Price INTEGER NOT NULL,
19         PRIMARY KEY(Piece, Provider)
20       );
```

```sql
INSERT INTO Providers(Code, Name) VALUES('HAL','Clarke Enterprises');
INSERT INTO Providers(Code, Name) VALUES('RBT','Susan Calvin Corp.');
INSERT INTO Providers(Code, Name) VALUES('TNBC','Skellington Supplies');

INSERT INTO Pieces(Code, Name) VALUES(1,'Sprocket');
INSERT INTO Pieces(Code, Name) VALUES(2,'Screw');
INSERT INTO Pieces(Code, Name) VALUES(3,'Nut');
INSERT INTO Pieces(Code, Name) VALUES(4,'Bolt');

INSERT INTO Provides(Piece, Provider, Price) VALUES(1,'HAL',10);
INSERT INTO Provides(Piece, Provider, Price) VALUES(1,'RBT',15);
INSERT INTO Provides(Piece, Provider, Price) VALUES(2,'HAL',20);
INSERT INTO Provides(Piece, Provider, Price) VALUES(2,'RBT',15);
INSERT INTO Provides(Piece, Provider, Price) VALUES(2,'TNBC',14);
INSERT INTO Provides(Piece, Provider, Price) VALUES(3,'RBT',50);
INSERT INTO Provides(Piece, Provider, Price) VALUES(3,'TNBC',45);
INSERT INTO Provides(Piece, Provider, Price) VALUES(4,'HAL',5);
INSERT INTO Provides(Piece, Provider, Price) VALUES(4,'RBT',7);
```

1) Select the name of all the pieces.

```
40 ●        SELECT Name FROM Pieces;
```

Result Grid | Filter Rows:

Name
Sprocket
Screw
Nut
Bolt

2) Select all the providers data.

```
40 ●       SELECT * FROM Providers;
```

Result Grid | Filter Rows:

Code	Name
HAL	Clarke Enterprises
RBT	Susan Calvin Corp.
TNBC	Skellington Supplies
NULL	NULL

3)Obtain the average price of each piece (show only the piece code and the average price).

```
40 ●       SELECT Piece, AVG(Price)
41              FROM Provides
42         GROUP BY Piece;
```

Result Grid | Filter Rows:

Piece	AVG(Price)
1	12.5000
2	16.3333
3	47.5000
4	6.0000

4)Obtain the names of all providers who supply piece

```
40 ●    SELECT Providers.Name
41        FROM Providers INNER JOIN Provides
42            ON Providers.Code = Provides.Provider
43               AND Provides.Piece = 1;
```

Result Grid | Filter Rows: | Export: | Wrap Cell

Name
▶ Clarke Enterprises
Susan Calvin Corp.

5)Select the name of pieces provided by provider with code HAL

```
40 ●    SELECT Pieces.Name
41        FROM Pieces INNER JOIN Provides
42        ON Pieces.Code = Provides.Piece
43            AND Provides.Provider = 'HAL';
```

Result Grid | Filter Rows: | Export: | Wrap

Name
▶ Sprocket
Screw
Bolt

6)For each piece, find the most expensive offering of that piece and include the piece name, provider name, and price (note that there could
be two providers who supply the same piece at the most expensive price).

```
40 ●      SELECT Pieces.Name, Providers.Name, Price
41          FROM Pieces INNER JOIN Provides ON Pieces.Code = Piece
42                      INNER JOIN Providers ON Providers.Code = Provider
43          WHERE Price =
44     ⊖    (
45             SELECT MAX(Price) FROM Provides
46             WHERE Piece = Pieces.Code
47          );
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: A

Name	Name	Price
Screw	Clarke Enterprises	20
Sprocket	Susan Calvin Corp.	15
Nut	Susan Calvin Corp.	50
Bolt	Susan Calvin Corp.	7

8)Increase all prices by one cent..

```
40 ●      UPDATE Provides SET Price = Price + 1;
41 ●      SELECT * FROM Provides;
```

Result Grid | Filter Rows: | Edit:

Piece	Provider	Price
1	HAL	11
1	RBT	16
1	TNBC	8
2	HAL	21
2	RBT	16
2	TNBC	15
3	RBT	51
3	TNBC	46
4	HAL	6

9)Update the database to reflect that "Susan Calvin Corp(code RBT) will not supply bolts (code 4).

```
40 ●        DELETE FROM Provides
41              WHERE Provider = 'RBT'
42                  AND Piece = 4;
43 ●        SELECT * FROM Provides;
```

Result Grid | Filter Rows: | Edit:

Piece	Provider	Price
1	HAL	11
1	RBT	16
1	TNBC	8
2	HAL	21
2	RBT	16
2	TNBC	15
3	RBT	51
3	TNBC	46
4	HAL	6
NULL	NULL	NULL

10)Update the database to reflect that;Susan Calvin Corp(code ;RBT) will not supply any pieces (the provider should still remain in the database).

```
40 ●        DELETE FROM Provides
41              WHERE Provider = 'RBT';
```

Result Grid | Filter Rows: | Edit:

Piece	Provider	Price
1	HAL	11
1	TNBC	8
2	HAL	21
2	TNBC	15
3	TNBC	46
4	HAL	6
NULL	NULL	NULL