Bimal Murali - PL2121

1.1

```
CREATE TABLE Items
  (ItemID INT PRIMARY KEY,
  ItemName VARCHAR(40)
  )

CREATE TABLE Shops
  (ShopID INT PRIMARY kEY,
  ShopName VARCHAR(40)
  )

INSERT INTO Items VALUES
  (1,'Bar-one'),
  (2,'Kitkat'),
  (3,'MilkyBar'),
  (4,'Munch')

INSERT INTO Shops VALUES
  (1,'AmalStores'),
  (2,'JyothiStores'),
  (3,'IndiraStores')

CREATE TABLE SaleDates (
    SaleDateID INT PRIMARY KEY,
    SaleDate DATE NOT NULL
)
INSERT INTO SaleDates (SaleDateID, SaleDate)
VALUES
    (1, '2018-10-05'),
    (2, '2018-10-10'),
    (3, '2018-09-15');

CREATE TABLE Sales (
    SaleID INT PRIMARY KEY,
    SaleDateID INT,
    ShopID INT,
    ItemID INT,
    Quantity INT,
    UnitPrice DECIMAL(10, 2),
    FOREIGN KEY (SaleDateID) REFERENCES SaleDates (SaleDateID),
    FOREIGN KEY (ShopID) REFERENCES Shops (ShopID),
    FOREIGN KEY (ItemID) REFERENCES Items (ItemID))
```

```
INSERT INTO Sales (SaleID, SaleDateID, ShopID, ItemID, Quantity, UnitPrice)
VALUES
    (1, 1, 1, 1, 100, 10.00),
    (2, 1, 1, 2, 200, 15.00),
    (3, 1, 1, 3, 50, 5.00),
    (4, 1, 1, 4, 150, 10.00),
    (5, 2, 2, 1, 10 * 28, 280.00),
    (6, 2, 2, 2, 30 * 28, 420.00),
    (7, 2, 2, 3, 40 * 28, 140.00),
    (8, 2, 2, 4, 20 * 28, 280.00),
    (9, 3, 3, 1, 50 * 28, 280.00),
    (10, 3, 3, 2, 70 * 28, 420.00),
    (11, 3, 3, 3, 30 * 28, 140.00),
    (12, 3, 1, 1, 150, 10.00),
    (13, 3, 1, 2, 250, 15.00),
    (14, 3, 1, 4, 200, 10.00);

SELECT * FROM sales
SELECT * FROM saledates
SELECT * FROM Items
  SELECT * FROM Shops
```

	SaleID	SaleDateID	ShopID	ItemID	Quantity	UnitPrice
1	1	1	1	1	100	10.00
2	2	1	1	2	200	15.00
3	3	1	1	3	50	5.00
4	4	1	1	4	150	10.00
5	5	2	2	1	280	280.00
6	6	2	2	2	840	420.00
7	7	2	2	3	1120	140.00
8	8	2	2	4	560	280.00

	SaleDateID	SaleDate
1	1	2018-10-05
2	2	2018-10-10
3	3	2018-09-15

	ItemID	ItemName
1	1	Bar-one
2	2	Kitkat
3	3	MilkyBar
4	4	Munch

	ShopID	ShopName
1	1	AmalStores
2	2	JyothiStores
3	3	IndiraStores

--1.2

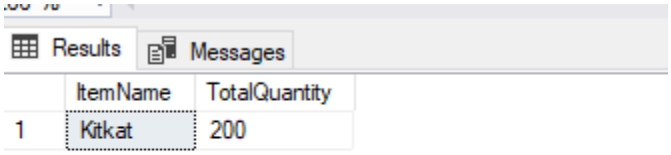
```
SELECT TOP 1 I.ItemName,SUM(S.Quantity * S.UnitPrice) AS Revenue
FROM Sales S
JOIN SaleDates SD ON S.SaleDateID = SD.SaleDateID
JOIN Items I ON S.ItemID = I.ItemID
WHERE MONTH(SD.SaleDate) = 10
GROUP BY I.ItemName
ORDER BY Revenue DESC
```

Results Messages

	ItemName	Revenue
1	Kitkat	355800.00

--1.3

```
SELECT TOP 1 I.ItemName, SUM(S.Quantity) AS TotalQuantity
FROM Sales S
JOIN SaleDates SD ON S.SaleDateID = SD.SaleDateID
JOIN Items I ON S.ItemID = I.ItemID
JOIN Shops SH ON S.ShopID = SH.ShopID
WHERE MONTH(SD.SaleDate) = 10 AND SH.ShopName = 'AmalStores'
GROUP BY I.ItemName
ORDER BY TotalQuantity DESC
```

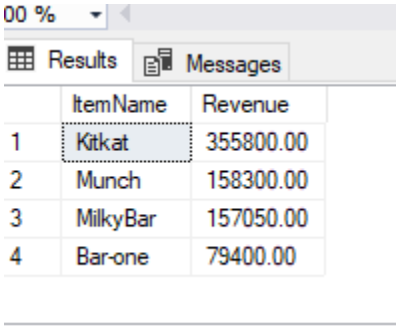


Results | Messages

	ItemName	TotalQuantity
1	Kitkat	200

–1.4

```
SELECT I.ItemName,SUM(S.Quantity * S.UnitPrice) AS Revenue
FROM Sales S
JOIN SaleDates SD ON S.SaleDateID = SD.SaleDateID
JOIN Items I ON S.ItemID = I.ItemID
WHERE MONTH(SD.SaleDate) = 10
GROUP BY I.ItemName
HAVING SUM(S.Quantity * S.UnitPrice) > 10000
ORDER BY Revenue DESC
```



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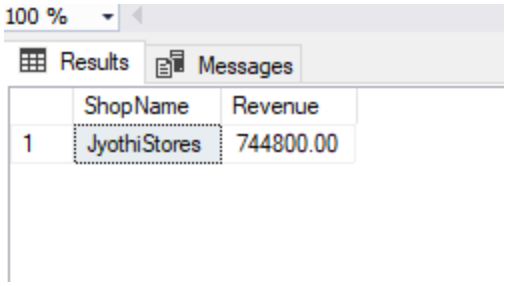
Results | Messages

	ItemName	Revenue
1	Kitkat	355800.00
2	Munch	158300.00
3	MilkyBar	157050.00
4	Bar-one	79400.00

--1.5

```
SELECT TOP 1 SH.ShopName,SUM(S.Quantity * S.UnitPrice) AS Revenue
FROM Sales S
JOIN SaleDates SD ON S.SaleDateID = SD.SaleDateID
JOIN Shops SH ON S.ShopID = SH.ShopID
WHERE MONTH(SD.SaleDate) = 10
GROUP BY SH.ShopName
ORDER BY Revenue DESC
```


100 %
Results
Messages
ShopName
Revenue
1
JyothiStores
744800.00