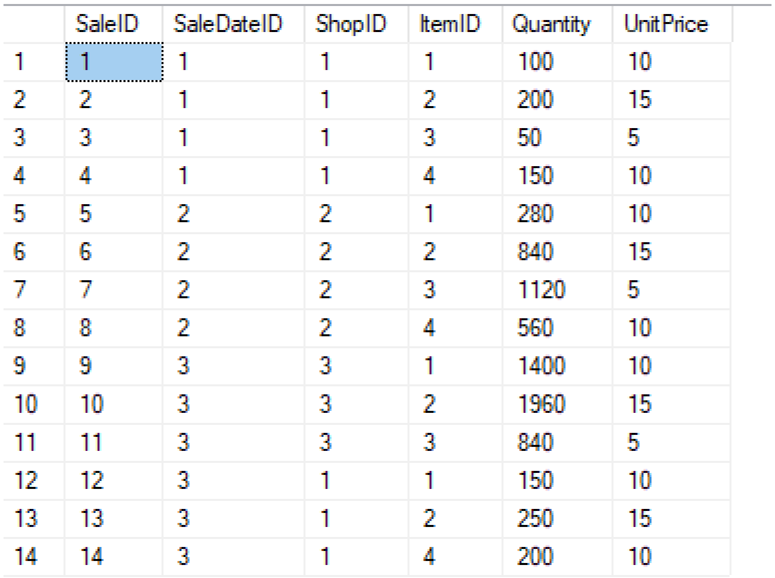
Bimal Murali - PL2121

1.1

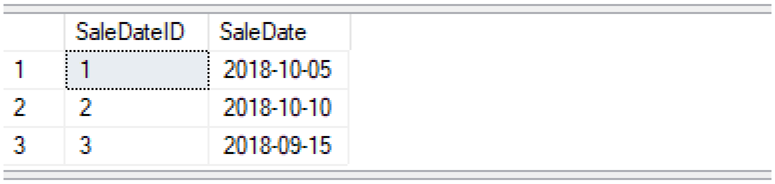
```
CREATE TABLE Items
  (ItemID INT PRIMARY KEY,
  ItemName VARCHAR(40)
  )

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 INT
    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),
    (2, 1, 1, 2, 200, 15),
    (3, 1, 1, 3, 50, 5),
    (4, 1, 1, 4, 150, 10),
    (5, 2, 2, 1, 10 * 28, 280/28),
    (6, 2, 2, 2, 30 * 28, 420/28),
    (7, 2, 2, 3, 40 * 28, 140/28),
    (8, 2, 2, 4, 20 * 28, 280/28),
    (9, 3, 3, 1, 50 * 28, 280/28),
    (10, 3, 3, 2, 70 * 28, 420/28),
    (11, 3, 3, 3, 30 * 28, 140/28),
    (12, 3, 1, 1, 150, 10),
    (13, 3, 1, 2, 250, 15),
    (14, 3, 1, 4, 200, 10);
```

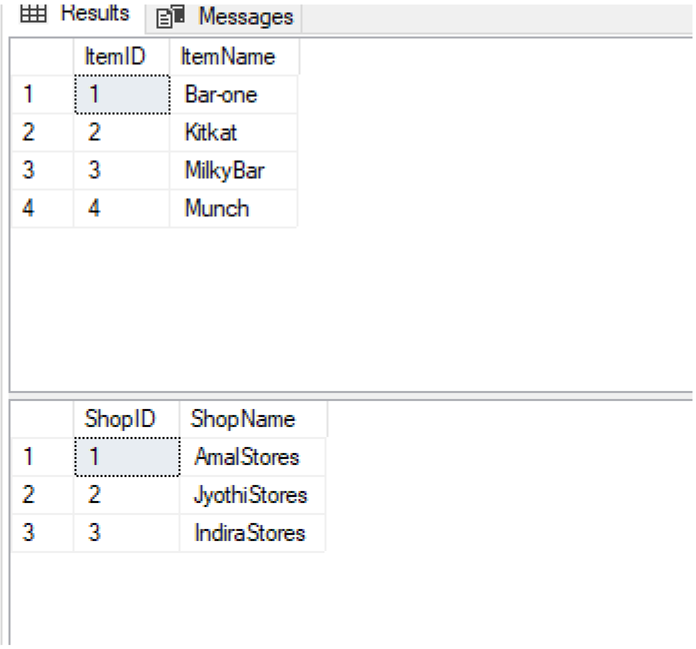
```
SELECT * FROM sales
SELECT * FROM saledates
SELECT * FROM Items
 SELECT * FROM Shops
```



	SaleID	SaleDateID	ShopID	ItemID	Quantity	UnitPrice
1	1	1	1	1	100	10
2	2	1	1	2	200	15
3	3	1	1	3	50	5
4	4	1	1	4	150	10
5	5	2	2	1	280	10
6	6	2	2	2	840	15
7	7	2	2	3	1120	5
8	8	2	2	4	560	10
9	9	3	3	1	1400	10
10	10	3	3	2	1960	15
11	11	3	3	3	840	5
12	12	3	1	1	150	10
13	13	3	1	2	250	15
14	14	3	1	4	200	10



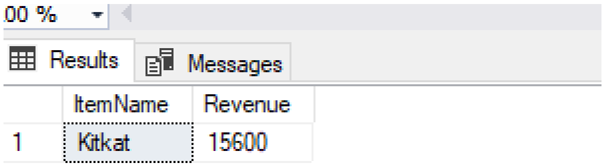
	SaleDateID	SaleDate
1	1	2018-10-05
2	2	2018-10-10
3	3	2018-09-15



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

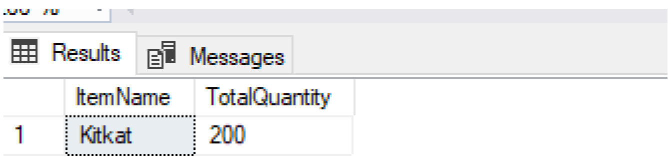
	ShopID	ShopName
1	1	AmalStores
2	2	JyothiStores
3	3	IndiraStores

```
--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
```



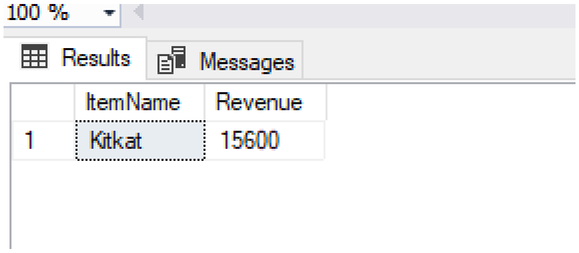
	ItemName	Revenue
1	Kitkat	15600

```
--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
```



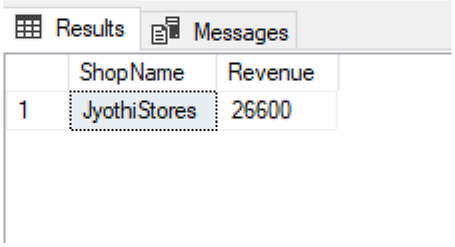
	ItemName	TotalQuantity
1	Kitkat	200

```
–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
```



	ItemName	Revenue
1	Kitkat	15600

```
--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
```



	ShopName	Revenue
1	JyothiStores	26600