BERKAY AKTÜRK

Question 1:

Write SQL code in a word document that will answer the questions below using the following two tables.

Inventory position table

	Date	StoreCode	ProductCode	SalesQuantity	SalesRevenue	ShipmentQuantity	StoreStock	IncomingStock
1	2014-01-01	514	001771582730 / 32	1	92.5833	0	0	0
2	2014-01-16	514	001771582730 / 32	0	0.0000	0	1	0
3	2014-03-04	514	001771582730 / 32	0	0.0000	0	0	0
4	2014-01-01	514	002021478136 / 32	1	83.3240	0	2	0
5	2014-01-06	514	002021478136 / 32	0	0.0000	2	4	0
6	2014-01-09	514	002021478136 / 32	1	111.1018	0	3	0
7	2014-02-04	514	002021478136 / 32	0	0.0000	3	6	0
8	2014-02-16	514	002021478136 / 32	1	111.1018	0	5	0
9	2014-02-24	514	002021478136 / 32	1	111.1018	0	4	0
10	2014-03-04	514	002021478136 / 32	1	111.1018	0	3	0

Store table

	StoreCode	StoreDescription	IsBlocked	StoreDetailedCode	SalesChannelType	Location	BuildingType
	510	MASLAK	1	NULL	Store	20	SOKAK
	511	IST AVP METR...	0	NULL	Store	16	AVM
	512	IST AVP YENIB...	0	NULL	Store	3	SOKAK
	513	SUADİYE	1	NULL	Store	69	SOKAK
	514	IST AVP BEYO...	0	NULL	Store	8	SOKAK
	515	BEYOĞLU TÜN...	1	NULL	Store	8	SOKAK
	516	IST AVP ISTIN...	0	NULL	Store	18	AVM
	517	IST AND UMR...	0	NULL	Store	74	AVM
	518	AIRPORT	1	NULL	Store	3	AVM
)	519	IST AVP CAPA...	0	NULL	Store	4	AVM

- **Find the latest StoreStock for each StoreCode, ProductCode pair**

```sql
WITH LatestDates AS (
    SELECT StoreCode, ProductCode, MAX(Date) as MaxDate
    FROM InventoryPosition
    GROUP BY StoreCode, ProductCode)

SELECT IP.StoreCode, IP.ProductCode, IP.StoreStock
FROM InventoryPosition IP
JOIN LatestDates LD ON IP.StoreCode = LD.StoreCode
AND IP.ProductCode = LD.ProductCode
AND IP.Date = LD.MaxDate
```

- **Sum sales by BuildingType**

```sql
SELECT S.BuildingType, SUM(IP.SalesRevenue) AS TotalSales
FROM InventoryPosition IP
JOIN Store S ON IP.StoreCode = S.StoreCode
GROUP BY S.BuildingType
```

- **List stores description which have sales revenue lower than 50TL in 2014 May**

```sql
SELECT DISTINCT S.StoreDescription
FROM InventoryPosition IP
JOIN Store S ON IP.StoreCode = S.StoreCode
WHERE IP.SalesRevenue < 50
AND YEAR(IP.Date) = 2014
AND MONTH(IP.Date) = 5
```

- **In February 2014, what is the difference between the highest-selling store and the least-selling store?**

```sql
WITH MonthlySales AS (
    SELECT IP.StoreCode, SUM(IP.SalesRevenue) AS TotalSales
    FROM InventoryPosition IP
    WHERE YEAR(IP.Date) = 2014 AND MONTH(IP.Date) = 2
    GROUP BY IP.StoreCode)
SELECT (MAX(MS.TotalSales) - MIN(MS.TotalSales)) AS SalesDifference
FROM MonthlySales MS
```