

Conclusion by date and time

We created Date, Time, Month, and Days of Week from our original data set using InvoiceDate column with the help of pandas.

InvoiceNo	StockCode	Description	Quantity	InvoiceDate	UnitPrice	CustomerID	Country	Date	Time	Day of Week	Month	Sales_Total
0	536365	85123A WHITE HANGING HEART T-LIGHT HOLDER	6	2010-12-01 08:26:00	2.55	17850.0	United Kingdom	01/12/2010	08:26	Wednesday	December	15.30
1	536365	71053 WHITE METAL LANTERN	6	2010-12-01 08:26:00	3.39	17850.0	United Kingdom	01/12/2010	08:26	Wednesday	December	20.34
2	536365	84406B CREAM CUPID HEARTS COAT HANGER	8	2010-12-01 08:26:00	2.75	17850.0	United Kingdom	01/12/2010	08:26	Wednesday	December	22.00
3	536365	84029G KNITTED UNION FLAG HOT WATER BOTTLE	6	2010-12-01 08:26:00	3.39	17850.0	United Kingdom	01/12/2010	08:26	Wednesday	December	20.34
4	536365	84029E RED WOOLLY HOTTIE	6	2010-12-01 08:26:00	3.39	17850.0	United Kingdom	01/12/2010	08:26	Wednesday	December	20.34

Then we analyzing these data we got the results-

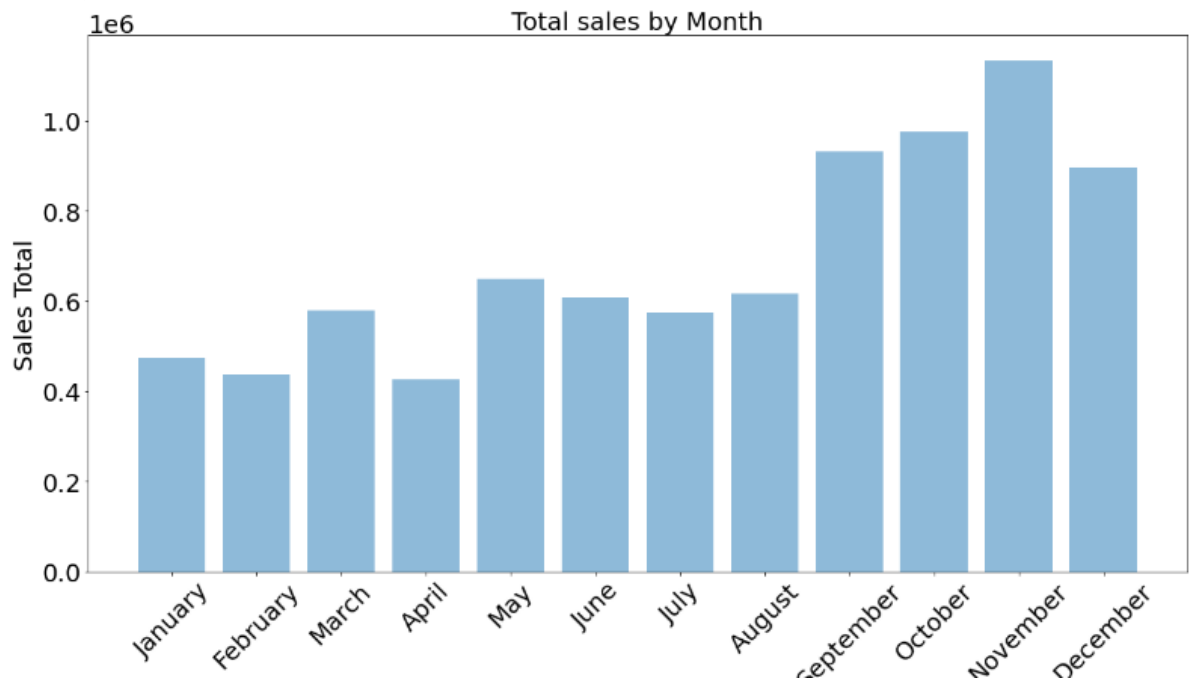
1. Transaction number every month-

```
November    65598
October     50695
December    44511
September   40822
May         28908
June        27836
March       27822
August      27662
July        27502
April       23198
January     21912
February    20363
Name: Month, dtype: int64
```

2. Total sales by every month-

```
Month
January    475074.380
February   436546.150
March      579964.610
April      426047.851
May        648251.080
June       608013.160
July       574238.481
August     616368.000
September  931440.372
October    974603.590
November   1132407.740
December   897110.400
dtype: float64
```

3. Histogram –

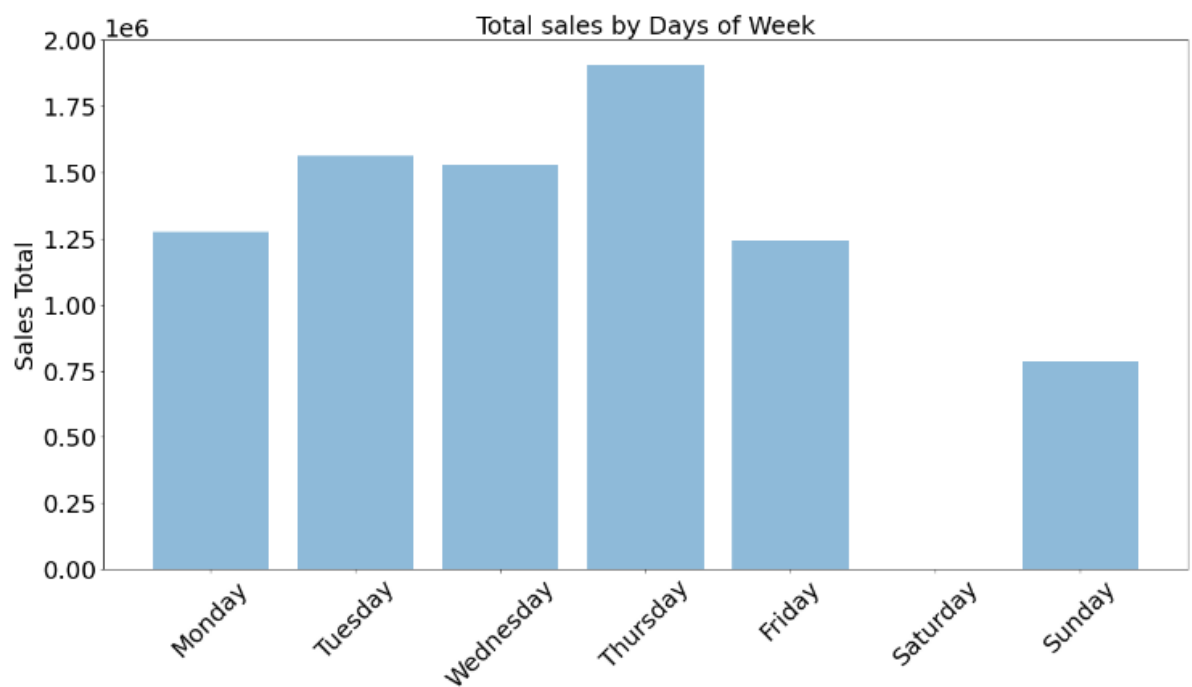


We can see most no of sales are in November, October and December.

4. Sales on days of week-

```
Day of Week
Monday      1274551.511
Tuesday     1563193.591
Wednesday   1530477.490
Thursday    1906108.190
Friday      1241316.181
Saturday     0.000
Sunday      784418.851
dtype: float64
```

5. Histogram-



Most sales are around Thursday but no sale on Saturday, may be Saturday is a off day for the company.