Google ads Hourly Analysis

Date : 07-06-2023

Project Start Date - End Date	• Start Date – 07 -06 -2023 • End Date – 07 -06 2023
Objectives	• To analyses how many people who clicked on the advertisement enrolled in our course • General exploratory analyses • General descriptive analyses
Milestones accomplished the week of Start Date - End Date:	• Descriptive analyses • Exploratory analyses • Classification of data with respect to term

Contact Information

This project is performed for educational purpose of under the guidance of Siddhivinayak Sir .

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Project Abstract

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This is Marketing Analysis for Education technology company.

In this data Impression indicates the visibility of the Advertisement., Clicks indicates the interested persons, sales unit indicates the purchase of service. As we are looking for at which preferred time in a day where we can do marketing and we will get sales definitely.

We have analyze using Descriptive and Exploratory Analyses also further we have used linear regression algorithm.

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Importing the libraries

```
In [56]: import pandas as pd
         import numpy as np
         import matplotlib.pyplot as plt
```

Importing the dataset

```
In [24]: file=pd.read_excel("C:/Users/91845/Downloads/Marketing Data Google Ads 6th june.xlsx")
```

```
In [25]: file
```

Out[25]:

	Sr no	Impressions	Clicks	Sales Unit
0	00:00:00	258647	7759.4100	54.315870
1	00:30:00	219974	8798.9600	61.592720
2	01:00:00	1096	10.9600	0.076720
3	01:30:00	1481	14.8100	0.103670
4	02:00:00	1794	17.9400	0.125580
5	02:30:00	2156	21.5600	0.150920
6	03:00:00	413	4.1300	0.028910

Processing Dataset

```
In [26]: dataset = file.drop(file.columns[0], axis=1)
```

Splitting the dataset into the Training set and Test set

```
In [43]: from sklearn.model_selection import train_test_split
         X_train, X_test, y_train, y_test = train_test_split(X, y, test_size = 0.25, random_state =0)
```

```
In [44]: print(X_train)
```

```
[[4.2282400e+02]
 [2.0247200e+03]
 [2.2969752e+04]
 [1.0960000e+01]
 [1.2871560e+04]
 [6.8302800e+02]
 [3.6996000e+02]
```

Training the Simple Linear Regression model on the Training set

In [49]:
```
from sklearn.linear_model import LinearRegression
LR = LinearRegression()
LR.fit(X_train, y_train)
```

Predicting the Test set results

In [51]:
```
y_pred = LR.predict(X_test)
```

In [52]:
```
print(X_train)
```

```
[[4.2282400e+02]
 [2.0247200e+03]
 [2.2969752e+04]
 [1.0960000e+01]
 [1.2871560e+04]
 [6.8302800e+02]
```

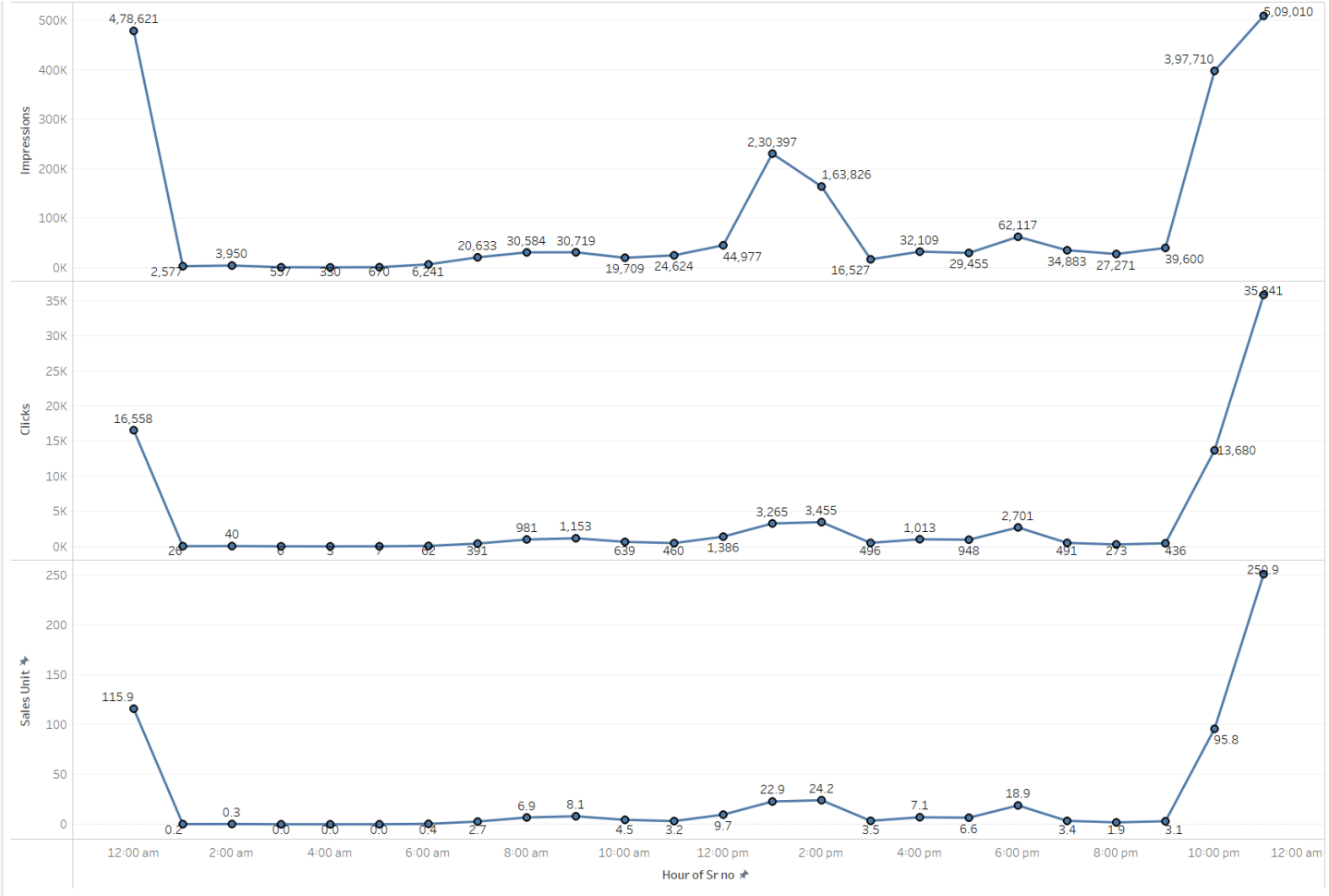
Visualizing the Training set results

In [55]:
```
plt.scatter(X_train, y_train, color = 'red')
plt.plot(X_train, LR.predict(X_train), color = 'blue')
plt.title('Clicks vs sales (Training set)')
plt.xlabel('clicks')
plt.ylabel('Sales')
plt.show()
```

Conclusion

From the graph we can conclude that the linear regression is giving perfect accuracy for advertisement data.

Data Visualization (using Tableau)



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