PHASE3:DEVELOPMENTPART1

WEBSITETRAFFICANALYSIS

PRIYADARSHINIENGINEERINGCOLLEGE

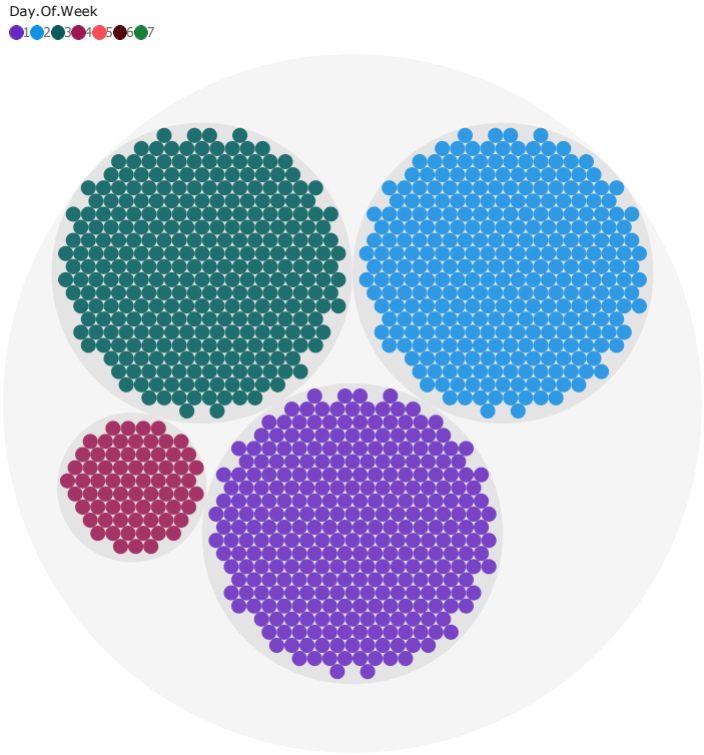
Website traffic analysis is the process of collecting, examining, andinterpretingdatarelatedtothevisitorsandinteractionsonawebsite.Itprovides invaluable insights into user behavior, preferences, and trends,helping organizations make informed decisions, optimize their onlinepresence,andenhanceuserexperiences.

Abstract:

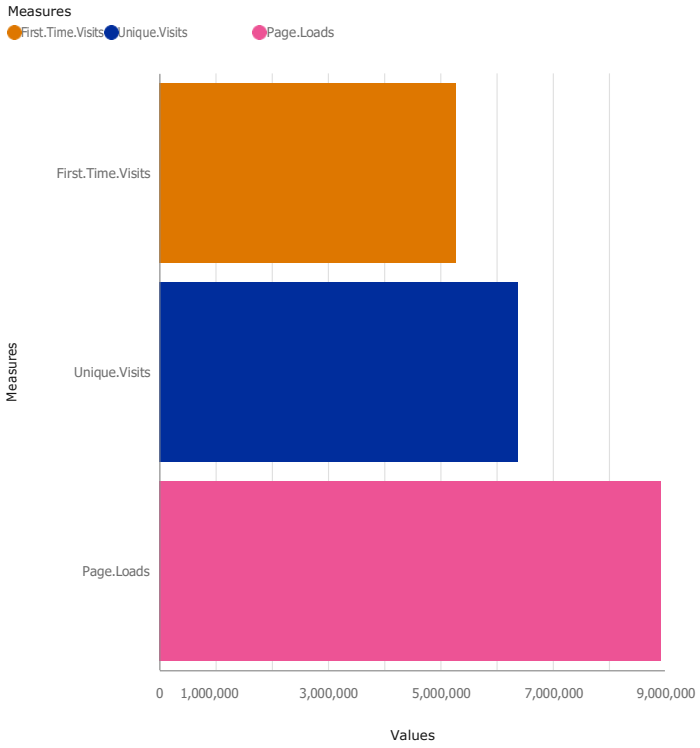
This projectaimstoanalyzewebsitetrafficdataforinsightsintouserbehavior, popular pages, and traffic sources. It involves data collection,visualization usingIBM Cognos,andPython foradvanced analysis.
The goal is to optimize user experiences and enhance websiteperformance.

Tab1

DayandDatehierarchycoloredbyDay.Of.Week



First.Time.Visits,Unique.Visits,Page.Loads

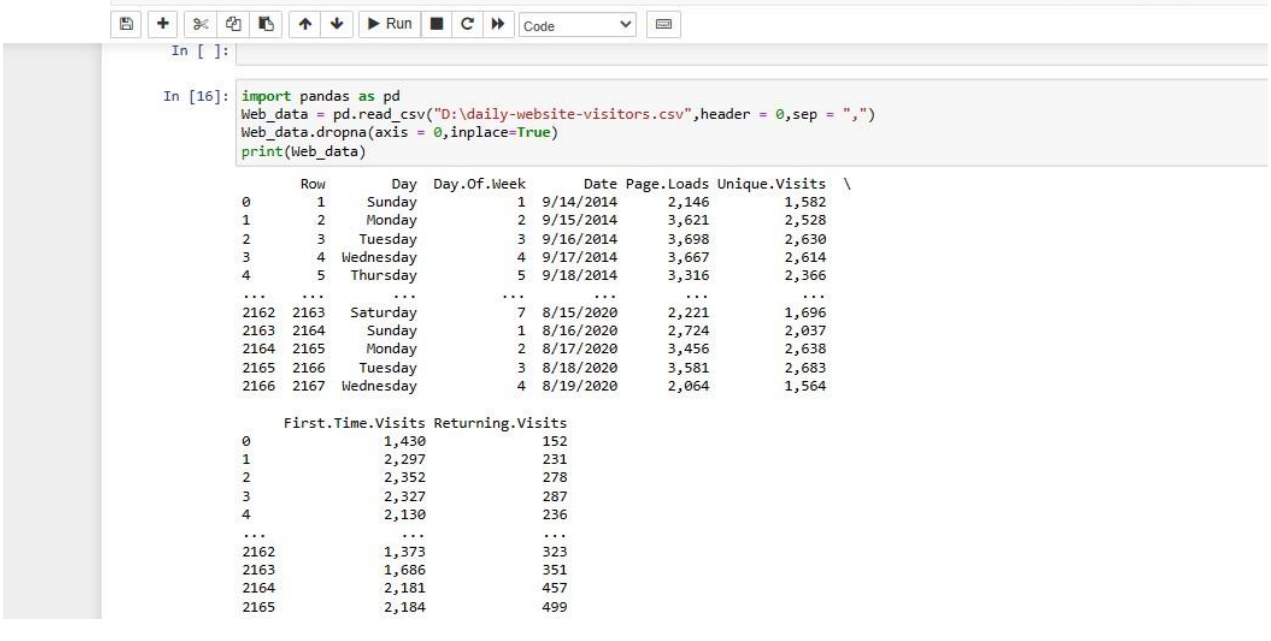


Insights:

Basedonthecurrentforecasting,**First.Time.Visits**mayreach**over395thousand**by**DayMonday+1**.
Theoverallnumberofresultsfor**First.Time.Visits**is**overtwo thousand**.
Theoverallnumberofresultsfor**Page.Loads**is**over two thousand**.
Theoverallnumberofresultsfor**Unique.Visits**is**overtwo thousand**

‘PythonIntegration’forWebsiteTrafficAnalysis:

IncludingtheInsightsintothePythontoknowtheactualdatathatprovidedbyKaggle



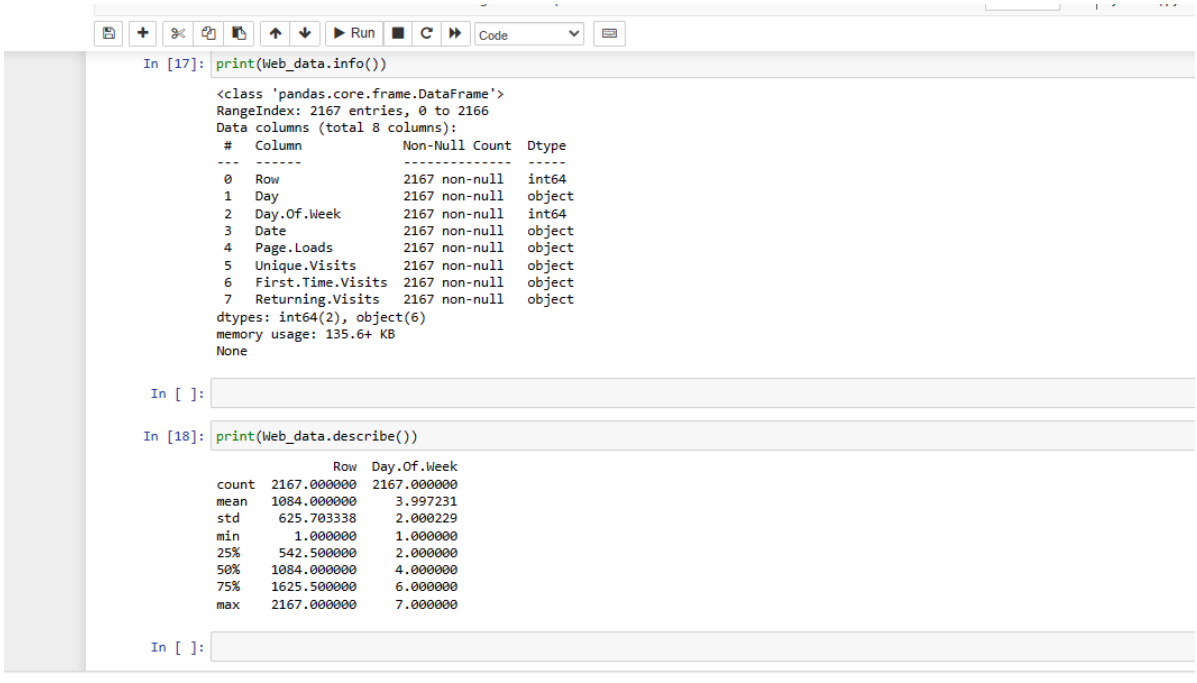
In [ ]:

In [16]:
```
import pandas as pd
Web_data = pd.read_csv("D:\daily-website-visitors.csv",header = 0,sep = ",")
Web_data.dropna(axis = 0,inplace=True)
print(Web_data)
```

```
       Row        Day  Day.Of.Week       Date Page.Loads Unique.Visits  \
0        1     Sunday            1  9/14/2014      2,146         1,582
1        2     Monday            2  9/15/2014      3,621         2,528
2        3    Tuesday            3  9/16/2014      3,698         2,630
3        4  Wednesday            4  9/17/2014      3,667         2,614
4        5   Thursday            5  9/18/2014      3,316         2,366
...    ...        ...          ...        ...        ...           ...
2162  2163   Saturday            7  8/15/2020      2,221         1,696
2163  2164     Sunday            1  8/16/2020      2,724         2,037
2164  2165     Monday            2  8/17/2020      3,456         2,638
2165  2166    Tuesday            3  8/18/2020      3,581         2,683
2166  2167  Wednesday            4  8/19/2020      2,064         1,564

     First.Time.Visits Returning.Visits
0                1,430              152
1                2,297              231
2                2,352              278
3                2,327              287
4                2,130              236
...                ...              ...
2162             1,373              323
2163             1,686              351
2164             2,181              457
2165             2,184              499
```

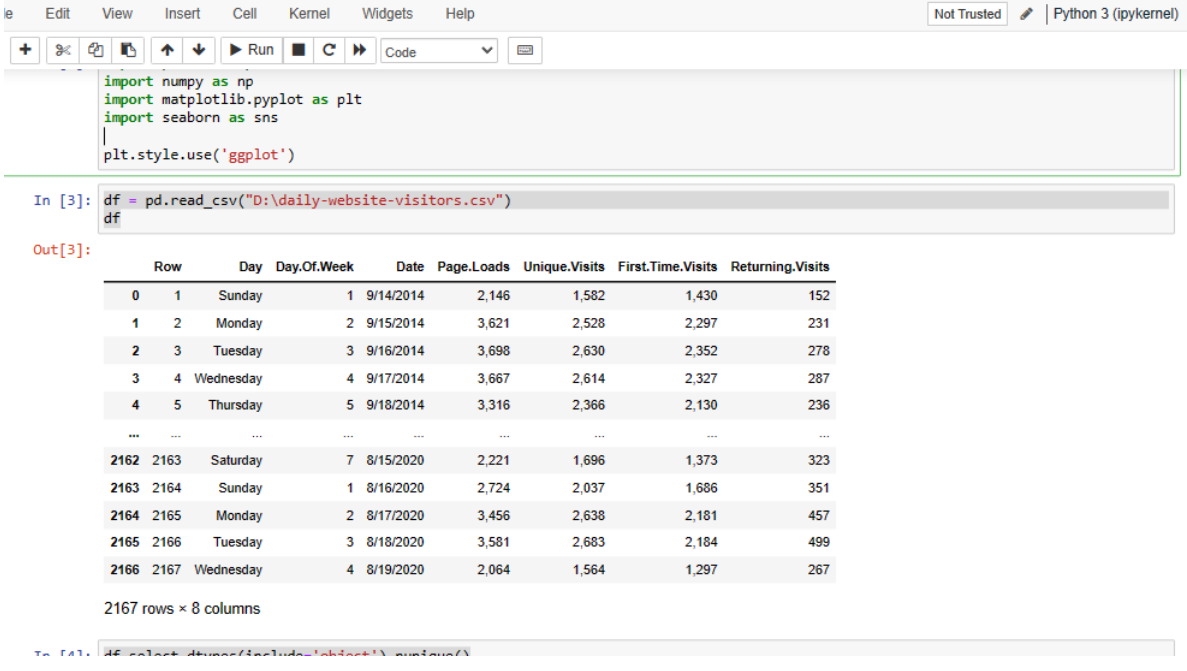
```
2166            1,297            267

[2167 rows x 8 columns]
```

Gettingofdatasetinformationusinginfofunction.



```
In [17]: print(Web_data.info())

<class 'pandas.core.frame.DataFrame'>
RangeIndex: 2167 entries, 0 to 2166
Data columns (total 8 columns):
 #   Column             Non-Null Count  Dtype
---  ------             --------------  -----
 0   Row                2167 non-null   int64
 1   Day                2167 non-null   object
 2   Day.Of.Week        2167 non-null   int64
 3   Date               2167 non-null   object
 4   Page.Loads         2167 non-null   object
 5   Unique.Visits      2167 non-null   object
 6   First.Time.Visits  2167 non-null   object
 7   Returning.Visits   2167 non-null   object
dtypes: int64(2), object(6)
memory usage: 135.6+ KB
None

In [ ]:

In [18]: print(Web_data.describe())

                Row  Day.Of.Week
count  2167.000000  2167.000000
mean   1084.000000     3.997231
std     625.703338     2.000229
min       1.000000     1.000000
25%     542.500000     2.000000
50%    1084.000000     4.000000
75%    1625.500000     6.000000
max    2167.000000     7.000000

In [ ]:
```

Printing the values ofdata setusing Pandas Library



```
In [3]: df = pd.read_csv("D:\daily-website-visitors.csv")
        df
```

Out[3]:

	Row	Day	Day.Of.Week	Date	Page.Loads	Unique.Visits	First.Time.Visits	Returning.Visits
0	1	Sunday	1	9/14/2014	2,146	1,582	1,430	152
1	2	Monday	2	9/15/2014	3,621	2,528	2,297	231
2	3	Tuesday	3	9/16/2014	3,698	2,630	2,352	278
3	4	Wednesday	4	9/17/2014	3,667	2,614	2,327	287
4	5	Thursday	5	9/18/2014	3,316	2,366	2,130	236
...	...	...	...	...	...	...	...	...
2162	2163	Saturday	7	8/15/2020	2,221	1,696	1,373	323
2163	2164	Sunday	1	8/16/2020	2,724	2,037	1,686	351
2164	2165	Monday	2	8/17/2020	3,456	2,638	2,181	457
2165	2166	Tuesday	3	8/18/2020	3,581	2,683	2,184	499
2166	2167	Wednesday	4	8/19/2020	2,064	1,564	1,297	267

2167 rows × 8 columns