

Comcast Telecom Consumer Complaints

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Introduction

This is the project report for the Project 3: Comcast Telecom Consumer Complaint” present as part to the “Data Science with Python” course of Simplilearn.

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- Language Used : Python

Problem Statement

Comcast is an American global telecommunication company. The firm has been providing terrible customer service. They continue to fall short despite repeated promises to improve. Only last month (October 2016) the authority fined them a \$2.3 million, after receiving over 1000 consumer complaints.

The existing database will serve as a repository of public customer complaints filed against Comcast. Using the dataset, help to pin down what is wrong with Comcast's customer service with the following information

1. Provide the trend chart for the number of complaints at monthly and daily granularity levels.
2. Provide a table with the frequency of complaint types.
3. Which complaint types are maximum i.e., around internet, network issues, or across any other domains.
4. Provide state wise status of complaints in a stacked bar chart. Use the categorized variable from Q3. Provide insights on “Which state has the maximum complaints?”
5. Which state has the highest percentage of unresolved complaints
6. Provide the percentage of complaints resolved till date, which were received through the Internet and customer care calls.

Solution

```
[3]: #import libraries
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import rcompleter, readline
readline.parse_and_bind('tab:complete')
import sys

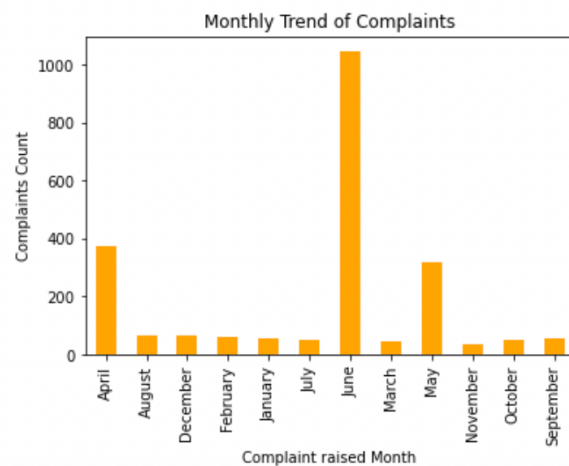
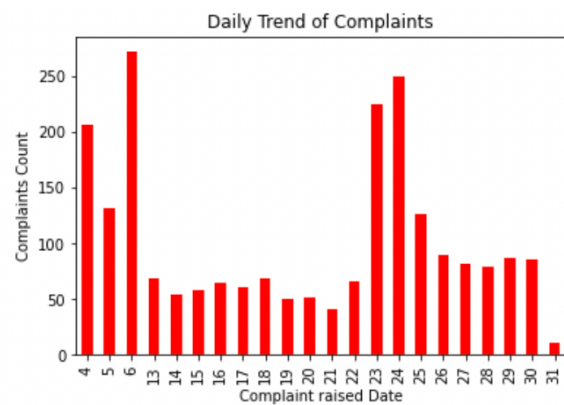
# Read the csv file from the local storage and load as dataframe. Validate the total number of rows, columns and view the 5 rows of
Comcast = pd.read_csv('/Users/renu/Learnings/Data Science With Python/Projects/Comcast Telecom Consumer Complaints/Comcast_telecom
count_row = Comcast.shape[0] # Gives number of rows
count_col = Comcast.shape[1]
print("\nTotal Columns =", count_col, "\nTotal Records =", count_row, "\n\n")
print("View of 5 rows of the data frame is as follows:\n")
Comcast.head(5)
```

Total Columns = 11
Total Records = 2224

View of 5 rows of the data frame is as follows:

	Ticket #	Customer Complaint	Date	Date_month_year	Time	Received Via	City	State	Zip code	Status	Filing
0	250635	Comcast Cable Internet Speeds	22-04-15	22-Apr-15	3:53:50 PM	Customer Care Call	Abingdon	Maryland	21009	Closed	
1	223441	Payment disappear - service got disconnected	04-08-15	04-Aug-15	10:22:56 AM	Internet	Acworth	Georgia	30102	Closed	
2	242732	Speed and Service	18-04-15	18-Apr-15	9:55:47 AM	Internet	Acworth	Georgia	30101	Closed	
3	277946	Comcast Imposed a New Usage Cap of 300GB that ...	05-07-15	05-Jul-15	11:59:35 AM	Internet	Acworth	Georgia	30101	Open	

1. Provide the trend chart for the number of complaints at monthly and daily granularity levels.



2. Provide a table with the frequency of complaint types.

Frequency of Complaints on Comcast Telecom is as follows:

```
3]:
```

	index	Customer Complaint
0	Comcast	83
1	Comcast Internet	18
2	Comcast Data Cap	17
3	comcast	13
4	Data Caps	11
...
1836	Comcast Speed and Cap misinformation	1
1837	Comcast bundling of internet and tv services a...	1
1838	Improper billing	1
1839	Comcast - Overcharging/Unnecessary Charges	1
1840	Bank Fee Refund Reques	1

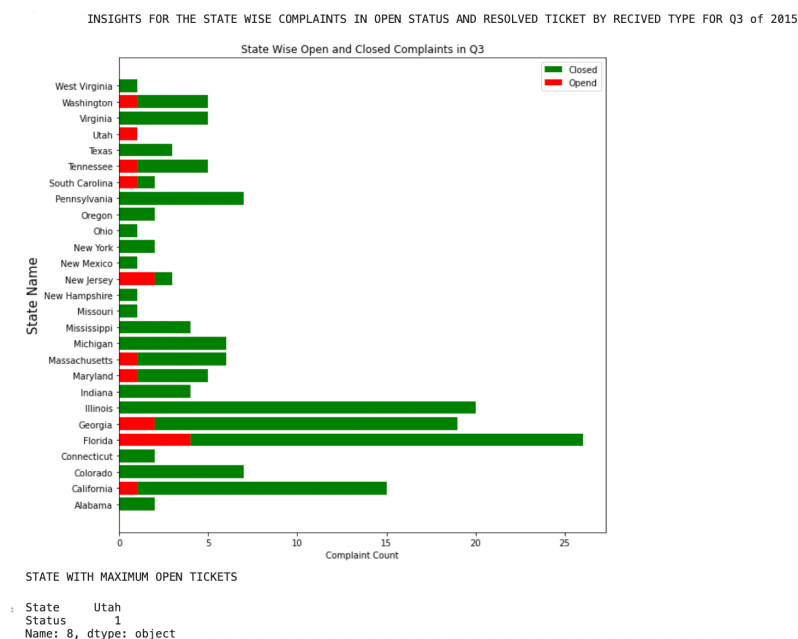
1841 rows x 2 columns

3. Which complaint types are maximum i.e., around internet, network issues, or across any other domains.

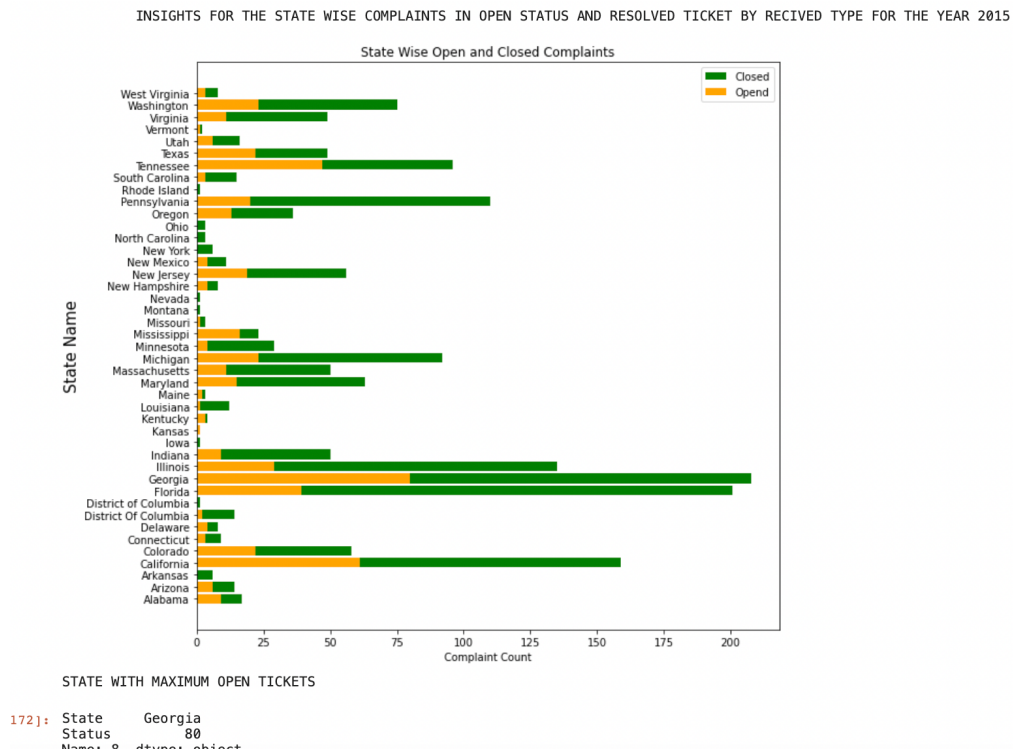
Top 5: Maximum complaints based on Complaint type or Domain:

```
]: Comcast      83
Comcast Internet 18
Comcast Data Cap 17
comcast          13
Data Caps        11
Name: Customer Complaint, dtype: int64
```

4. Provide state wise status of complaints in a stacked bar chart. Use the categorized variable from Q3. Provide insights on “Which state has the maximum complaints?” - Utah



5. Which state has the highest percentage of unresolved complaints – **Georgia**



6. Provide the percentage of complaints resolved till date, which were received through the Internet and customer care calls.

PERCENTAGE OF COMPLAINTS RESOLVED RECIEVED THROUGH INTERNET & CUSTOMER CARE CALLS

```

[173]: Status Received Via
      Closed Customer Care Call    50.62
           Internet                49.38
      Name: Received Via, dtype: float64
  
```

NOTE: The Source code and Snapshots of the result are shared in separate documents.