Discerption for Comcast Telecom Consumer Complaints project

The provided code appears to be a Python script that analyzes a dataset of Comcast telecom complaints. Here's a brief description of the project:

1. **Data Loading: The script reads the complaints data from a CSV file using the pandas library and displays the first few rows of the dataset.**
2. **Data Preprocessing: The script performs some data preprocessing steps on the dataset. It creates a new column called "date_index" by combining the "Date_month_year" and "Time" columns and converts it to a datetime format. It also converts the "Date_month_year" column to datetime format and sets it as the index. Additionally, it adds a "Day of Month" column, sets it as the index, and groups the complaints based on monthly and daily granularity levels.**
3. **Trend Charts: The script generates two trend charts using matplotlib. The first chart shows the number of complaints at the monthly granularity level, and the second chart shows the number of complaints at the daily granularity level.**
4. **Complaint Types Frequency Table: The script creates a frequency table for complaint types by counting the occurrences of each complaint and displaying the top 25 complaint types.**
5. **Categorizing Complaint Status: A new categorical variable called "newStatus" is created based on the "Status" column. Complaints with "Open" or "Pending" status are categorized as "Open," and complaints with "Closed" or "Solved" status are categorized as "Closed."**
6. **Complaint Status by State: The script groups the complaints by state and "newStatus" and generates a table showing the count of closed and open complaints for each state. It then plots a stacked bar chart to visualize the distribution of closed and open complaints across states.**

7. **Maximum Complaints: The script identifies the state with the maximum number of complaints by counting the occurrences of each state and displays the top states with the highest complaint counts. It also plots a pie chart to show the distribution of unresolved complaints across the top states.**
8. **Complaint Resolution Percentage: The script filters the dataset to include only complaints received through the internet and customer care calls. It calculates the percentage of resolved and unresolved complaints and plots a pie chart to display the distribution of complaint statuses for these channels.**

Overall, the project aims to analyze the Comcast telecom complaints dataset by exploring trends, complaint types, complaint statuses, and resolving percentages.