**Notice(sae15projet)**

This code aims to analyse a packet capture file (tcpdump) to extract useful information and present it in graphical and tabular form.

1. First, it imports the libraries needed to read the file, generate graphs and tables, and open the html file generated at the end of the analysis.
2. It then opens the packet capture file in read mode (file=open("DumpFile.txt", "r"))
3. It then creates empty lists to store the information extracted from each line of the file (ipsr, ipde, length, flag, seq, time)
4. It also creates counters to count the number of flags of different types, the number of frames exchanged, the number of ICMP requests and responses, the number of sequences, acknowledgements, and windows.
5. It then uses a loop to traverse each line of the file. For each line, it uses the split() method to separate the information using a space as a delimiter.
6. It then uses conditions to check if the line contains useful information, such as IP addresses, flags, sequences, times, etc. If it finds useful information, it will use the split() method.
7. If it finds useful information, it will store it in the appropriate lists.
8. It will also use counters to count the number of flags

The next part of the code uses the csv library to save the extracted data in separate csv files for each list created. This allows the data to be stored in a structured way and used later for analysis or visualisation.

Secondly, the code uses the webbrowser library to open a web browser and display an html file generated from the data saved in the csv files. This html file contains tables and graphs created using the matplotlib library, which allow the data to be visualised in a clear and intuitive way.

The last part of the code consists of several for loops and if conditions that clean up the data by removing irrelevant information and grouping similar data. These for loops and if conditions also allow for counting different types of data, such as flags, queries, responses, etc. These counts are then used to create a list of all the data types in the database. These counters are then used to create graphs of aggregated data in the html file.

In summary, this code reads a tcpdump packet trace file, extracts the important data, saves it to csv files, cleans up the data and organises it using for loops and if conditions, and then displays the cleaned data in tabular and graphical form in an html file using matplotlib and webbrowser.