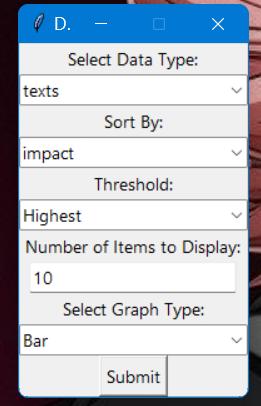
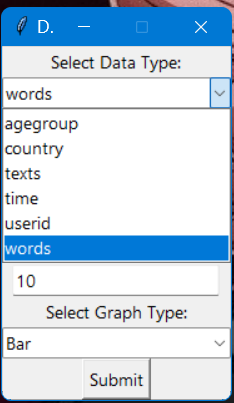
# Results and Discussion:

Output of the code:



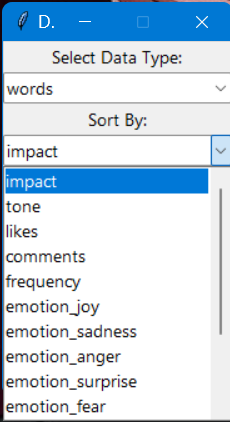
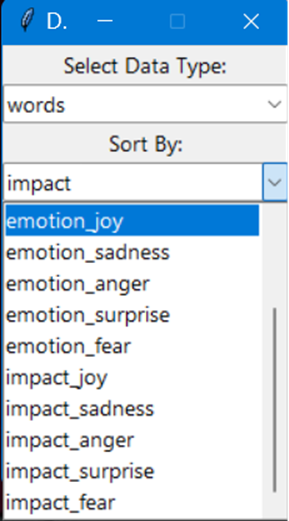
Gui to take user input made for all user interactions

The code can analyse by sorting data as per the following parameters:

* Data type to sort by 

It can sort results for the data types of agegroup, country, texts, time, userid and words texted

Sort by parameters:



it can sort by impact which is calculated as

impact = impacting parameter (default tone) \* (number of likes 10 + number of comments)

this is done to check the overall impact the text has made in the social media users

likes and comments are weighed differently because commenting shows a much higher degree of user involvement to the content and hence is more impactful. This is why it can also be observed number of likes are much higher in quantity than the number of comments.

It can also sort for impact by each emotion which is calculated as

Impact by {emotion} = impacting {emotion} \* (numberof likes 10 + number of comments)

Again this is done done to check the real emotional impact the text has made in the social media users

likes and comments are weighed differently because commenting shows a much higher degree of user involvement to the content and hence is more impactful. This is why it can also be observed number of likes are much higher in quantity than the number of comments.

Other than this it can also sort by the frequency of the data type, number of likes, number of comments, pure emotional score of the data and pure tonal score of the data

For non text and non word datatypes such as country, agegroup, time etc, the program displays the net sum of the sorting parameter grouped by the datatype

For example if we give country sorted by impact joy:

It would display the net sum of the impact joy for all texts grouped countrywise

The impact joy of said country is the sum of the net impact on joy for all its users

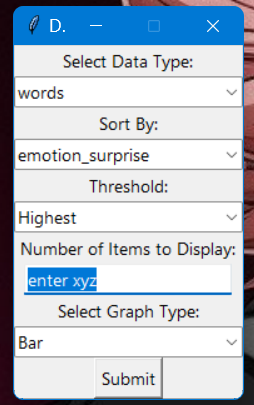
Similarly if given agegroup or time sorted by tone or likes it would return:

The net sum of tones or likes of texts grouped agegroup or time wise

The tone or like of a given agegroup or time is considered the sum of tones of all texts generated by

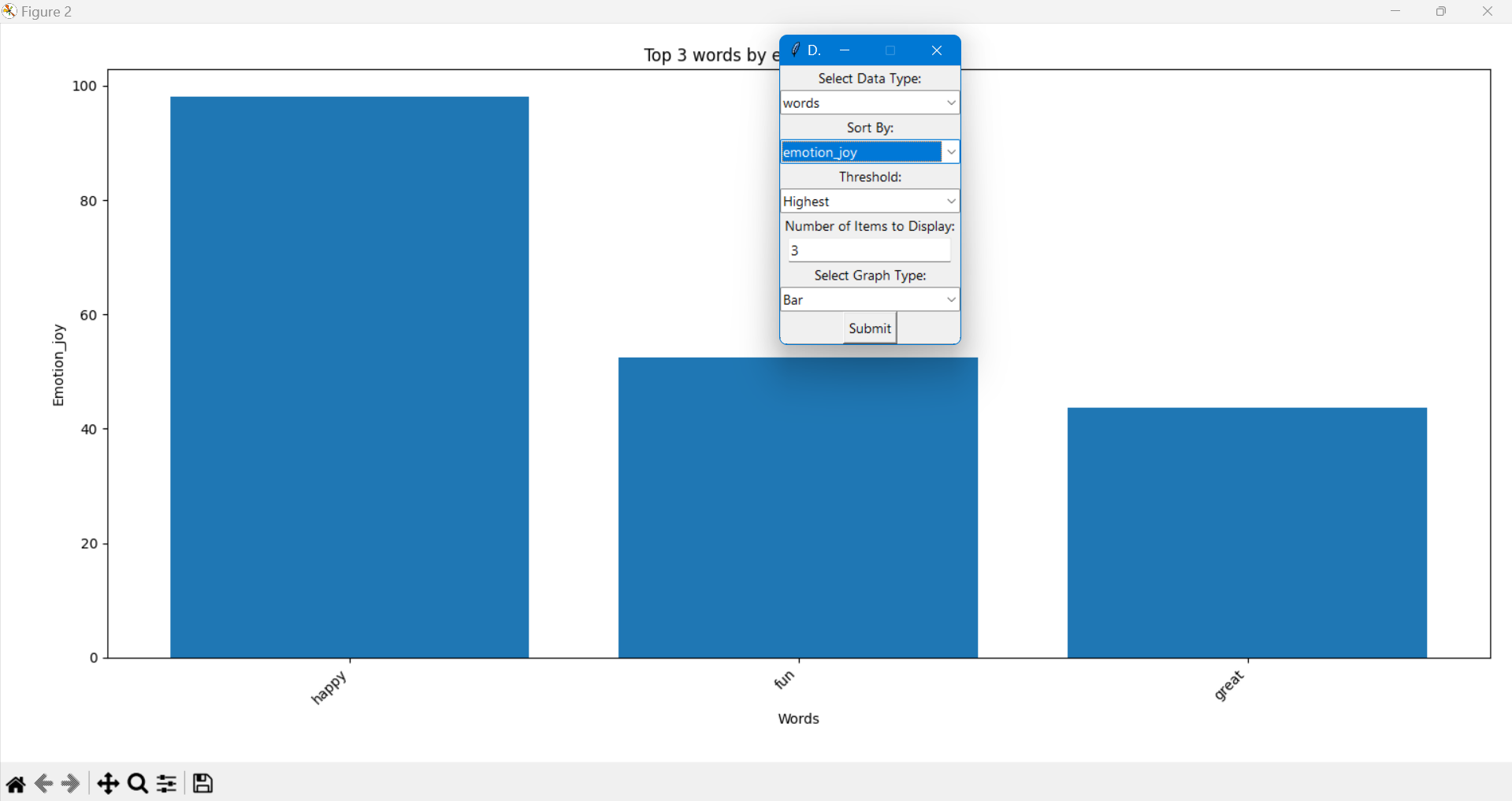
That have been generated by that group or in that time

Sort by number of items:



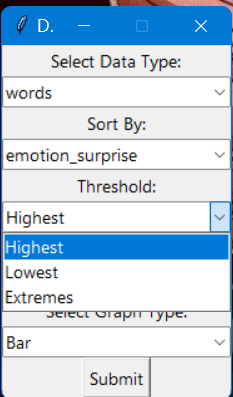
Error handling for input with invalid message on entering non integer



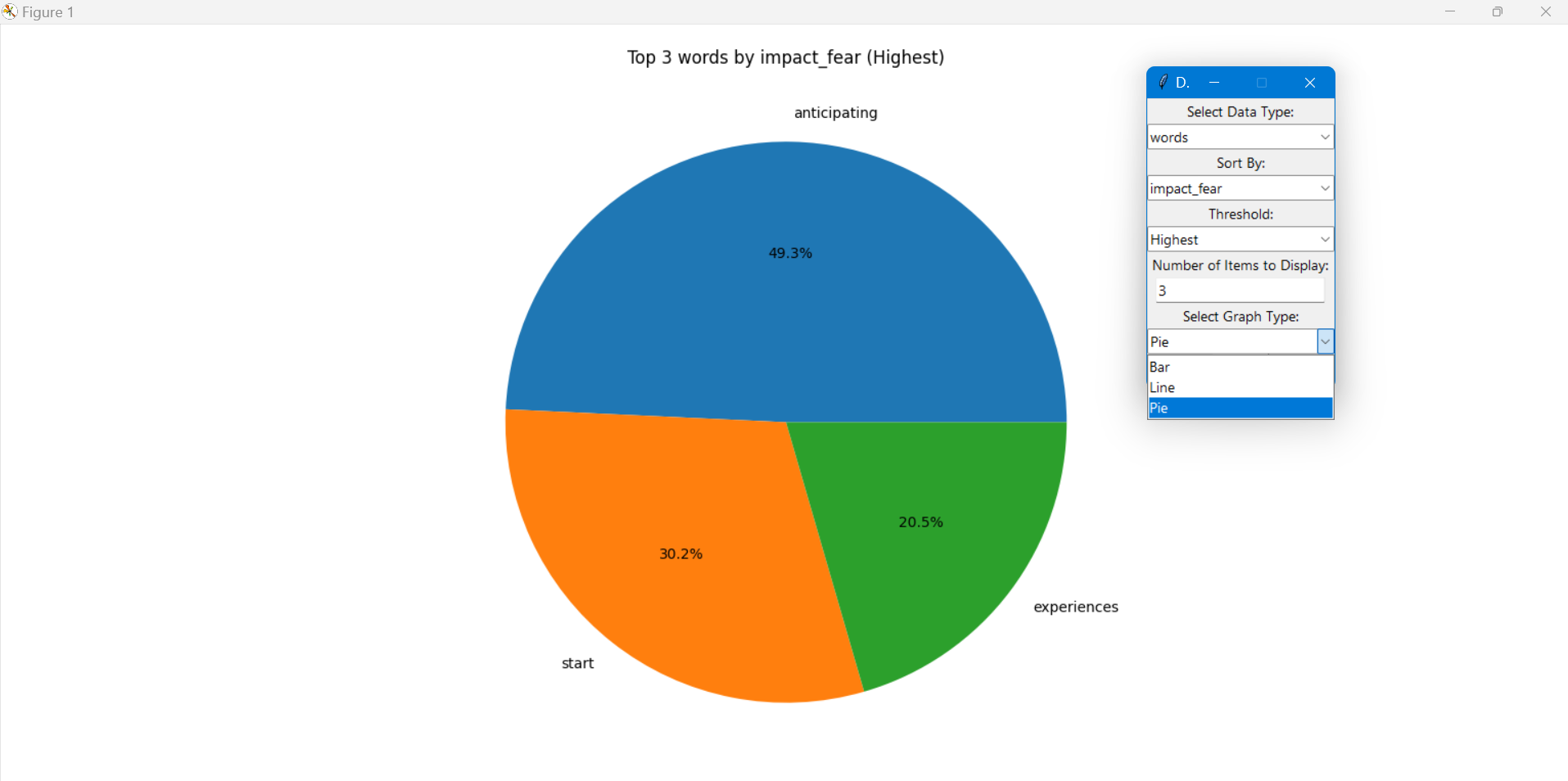


Sample output

Threshold for sorting:



Plot graph type:



Sample output

Output:  
The codebase has been able to process and analyze textual data on all possible dimensions:  
Sentiment Trends: Clear identification of the positive, negative, and neutral tones of the dataset.  
Emotional Insights: Quantification of emotions such as joy, sadness, anger, and fear along with scores associated with texts and words.  
Impact Metrics: Precise calculation of overall and emotion-specific impact scores that gives a more accurate view of the audience engagement level.  
• Visualization Outputs: Dynamic graphical representations, including bar charts for categorical analysis, pie charts for proportion visualization, and line plots for trend analysis.