**Visualization Canvas**

*“The greatest value of a picture is when it forces us to notice what we never expected to see.*

**John Tukey**

|  |  |
| --- | --- |
| **Story**  *What’s the problem?*  *What question do you want to answer?*  *Why did you choose it?*  *What is the context?* | Our goal is to get an interactive dashboard that represents messenger group chat analytics. It will be interesting for us and also can be used by others. We will analyze the behavior of people in group chat. |
| **Audience**  *Who is going to use the viz?* | First of all our classmates, but also can be used by everyone who uses messenger. |
| **Data**  *What type of data do you have?*  *Where is it stored?*  *Is it static or changing?* | Data can be downloaded from facebook(as JSON file). Data is static. |
| **Tools**  *What tool(s) are you going to use?*  *Why did you choose it?* | json, pandas, numpy, plotly, re, dash and html packages  We will these packages use to get convenient data and visualizations. |
| **Charts**  *What types of charts are chosen?*  *Why are they the best to answer the question posed?c*  *Any real alternatives?* | Bar charts, line charts, boxplots, scatterplots and so on. Mainly questions will be who does that action the most and comparison of different members' acts. |
| **Group** | Tigranuhi Tirabyan  Artur Avagyan |
| **Originality**  *Describe any related work that was done with the data. How is your approach original?* | There are some analytics tools available but we are going to make it interactive and do deeper analysis. |
| **Steps**  *List the steps you will implement (by each team member)* | We haven’t divided steps by each member because we are going to do the project together(with zoom or offline meetings) |

**Conversation Information**

Total Message, Voice messages, Files, Links, Photos, Videos, GIFs, Stickers and Reactions count (format ---> ‘text’)

Member’s names (format ---> ‘text’)

**Number of messages by time**

By year, month, day, weekday, hours (format ---> 3 ‘bar plots’ by days, weekdays and hours based on choice of year and month)

**Member wise statistics**

Total Message, Voice messages, Files, Links, Photos, Videos, GIFs, Stickers and Reactions count by each chat member (format ---> ‘table’ and ‘plots’ in different tab panels. ‘bar plots’ by types of messages in plot panel, interactive table with all information in table panel)

**Distribution of daily messages**

Histogram of daily messages by each member (format ---> ‘histogram’)

**Emoji statistics**

Number of sent emojis per member, number of selected emoji(s) for each member, number and count of most used emoji per member (format ---> 2 different plot panels and interactive table panel)

**Reaction statistics**

Statistics of reaction by member and reaction type (format ---> 2x2 subplots with 2 ‘piecharts’ and 2 ‘barplots’)

**Message text analysis**

WordCloud and most used words by each member (of selected length). (format ---> 2 tabs with wordcloud and interactive table)