I have implemented a program in python named GopiMiyani_Assignment03.py for the purpose of retrieving some data from the YouTube API and do some processing on that data. User can run this program with command: "*python3 youtube_data.py --search_term mysearch --search_max mymaxresults*" where in place of mysearch and mymaxresults, user has to specify the search keywords to do a YouTube search and maximum results to get total number of results respectively. The output of program will be the results of data processing on searched data such as most and least viewed video with total number of views, best and least liked video with total number of likes, most and least disliked videos with total number of dislikes for each, most and least commented video with total number of comments.

The logic of the program is divided into two parts. In first part, it starts with fetching data from YouTube website such as ID of the video, title, views, likes, dislikes, comments, and favorites using YouTube data API, filtering the data using search keyword, retrieving total records equal to search_max and finally writing result into video_results.csv file. This part of the program is same as given in youtube_data.py on canvas.

In second part, data processing is performed. The program reads searched YouTube data from video_results.csv file using pandas library and then perform data analysis such as best liked video, most viewed video, most commented video etc. using numpy library. Finally, the program displays the result to user on the output screen.