**SI507 Final Project Proposal**

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**1. Project Overview**

I will build a program displaying the popularity of some video games by displaying Youtube information. I will collect data (from Youtube search API and video API) such as view counts, the number of postings, like/dislike comments, the number of tags and analyze them with visualization.

**2. Data Sources**

|  |  |  |
| --- | --- | --- |
| **Source** | **Description** | **Challenge Score** |
| Youtube with OAuth (Video) | Web API you haven’t used before that requires OAuth | 6 |
| Youtube w/o OAuth (Search) | Web API you haven’t used before that requires no authorization | 3 |
| Total Score | | 9 |

**3. Presentation Options and tools**

Users will be allowed to select specific period and a video game title such as Overwatch, Diablo, League of Legends, etc. After selecting, my program will output some graphs as below.

(1) The total number of view counts from Youtube for the selected game from recent 50 videos (bar chart)

(2) The ratio of like/dislike counts from Youtube (recent 50 posts per game) for the selected game (pie chart)

(3) The average number of likes and comments from Youtube (recent 50 posts per game) for selected games (grouped bar\_chart)

(4) The average number of comments from Youtube (recent 50 posts per game) for selected games (rotated bar)

I will use plotly with some python libraries (matplotlib, pandas). And I might add more charts as I will build my program further.