1. What are the names and NetIDs of all your team members? Who is the captain? The captain will have more administrative duties than team members.
    a. Xinran Hua (xinranh2), Teresa Dong (teresad2), Christina Hu (ch35), Amy Qian (amyyq2)
    b. Captain: Amy Qian

2. What topic have you chosen? Why is it a problem? How does it relate to the theme and to the class?

    We have chosen to create a chrome extension that will analyze the sentiment of YouTube videos based on the comment section. We will color-annotate a page of videos based on the positivity/negativity on the video. For example, there will be a green box highlighting videos that are liked by video commenters and a red box around videos that are disliked by video commenters. This chrome extension will help YouTube influencers produce more videos that their followers like. It can also help viewers decide which videos to watch based on how positive the commentary is. This project relates to the theme of “Intelligent Browsing” and CS410: Text Information System because we have to scrape and analyze text (user commentary) to provide real-time information to the user while browsing a page of Youtube videos.

3. Briefly describe any datasets, algorithms or techniques you plan to use

    We will be using the comment section of Youtube videos as our dataset and we plan on using Python libraries to perform sentiment analysis.

4. How will you demonstrate that your approach will work as expected?

    We will analyze Youtube pages that are known to be highly disliked. Our approach works if most of the videos on those pages are highlighted red. We will do the same with pages that are known to be highly liked by commenters, and ensure these videos are highlighted green.

5. Which programming language do you plan to use?

    We will use Python for backend and sentiment analysis, and Javascript to create the Chrome extension

6. Please justify that the workload of your topic is at least 20*N hours, N being the total number of students in your team. You may list the main tasks to be completed, and the estimated time cost for each task.

    Researching and creating a Chrome Extension - 20 hours
    Researching and creating sentiment analyzer - 15 hours
    Combine sentiment analyzer into Chrome Extension - 10 hours

Analyze a Youtube video comment section using Chrome Extension and sentiment analyzer - 20 hours
Display results of analysis with green/red boxes in real time on YouTube Channel page - 15 hours