

# Final Project

This is an individual project marked out of 60 points.

**Due Date: April 13, 2021, 11:59PM**

## Project Features (40 points)

For this assignment, you will take the output of your group's A3 and continue development with it by adding extra features. That means, clone your A3 team repository and work on your own repository from here on.

In this project, we will use a "buffet" setup for developing your program. Select any feature(s) from the list below to work on. If you have suggestions, bring it up with the instructor and it can be added to the list with an appropriate number of points.

- **10 points each:** Use of public APIs:
  - Google Feed API - take any public feeds and display them in a useful way in your program
  - Google Places API - access directory information and display them in a meaningful way in your program
  - Google Geocoding API - convert urban addresses and display them in a meaningful way in your program (don't bother with "rural" addresses, or at least don't bother with their conversion accuracy)
  - Google Directions API - get directions and integrate this back in your conversation
  - Google Visualization API - utilize data either from the conversation or elsewhere and display visualization in a meaningful way in your program
  - Google Translate or Bing Translate API - translate parts of the conversation into another language
  - Google Prediction API - utilize data either from the conversation or elsewhere and integrate predicted outcomes back into the conversation
  - Wikipedia API - extract knowledge from definitions for your own conversation use
  - Yahoo! Answers API - aggregate answers from Yahoo! for your own conversation use
  - Flickr API - search on specific tags based on your conversation and display relevant results
  - Twitter API - pull the latest tweets from a famous person, parse that tweet, and integrate relevant information into your conversation
  - Facebook Graph API - get information about someone and integrate that back in the conversation
  - Dropbox API - search and share information with the conversation agent
  - PayPal API (sandbox only) - simulate an e-commerce scenario for purchasing a product
  - Etsy API - grab the content and talk about it in the conversation

- Google Street View Image API - get/show directions using this API
- Wolfram API - grab the content and talk about it in the conversation
- Google Static Maps API - embeds images into conversation

Note: if you do features that aren't on this list, you may not get any points for it!

**Important Note:** The number of points associated with each feature is to indicate the maximum number of points you could get for that feature. The quality of the feature will still need to be assessed upon submission.

## **Project Documentation (15 points)**

You are to submit the following for your system:

- **3 points each:**
  - Include an updated README as before
  - Include a list of the APIs you've incorporated into your program and briefly explain how you used it in your chatbot (remember that what you've gotten points for from A3 will not be counted again for the project)

## **Presentation (5 points)**

A 60 to 90 second video of your assignment showing:

- A description of your program's conversational topic
- Each feature you've programmed and how you used it to improve either the conversation or the overall system (since A3)
- You should narrate and/or provide subtitles

## **Evaluation Criteria**

**40 points:** For all chosen programming features listed above.

**15 points:** For all the documentation listed above.

**5 points:** Video submission

## **What to Submit**

Put all your documentation into one report and submit it as a single PDF (on Canvas). Be sure to include the URL to your repository for this assignment in the report.

Be sure to include your full name in your PDF submission.

Regarding the video, TAs suggest uploading to YouTube (set video permission to unlisted so only viewable if someone has the direct link) and submit the link. But I still need you to submit one copy to Canvas for record.