Some basic criteria for your project is as follows: groups of 2-3 folks with similar interest and learning goals with be brought together (either by yourselves or with instructor assistance). You are expected to first develop an individual idea here in this proposal phase and then will discuss how your idea and your group can be brought into one learning space. Some ways are to have individual members working on variations of the group idea, or to have individual members each working on one part of the goal. You are expected to come to the normal lecture time and then form into groups and make some progress in each class! This progress will be checked by you instructor in each class and lab and these will make up the parts of your total project grade. According to you syllabus, the main parts of the project will be (1) the prototype phase (initial completion of some of your proposal goals, each group has to do only one of these), (2) the presentation phase (each group only has to do one of these), where your group will put together a few slides and some written details of what you were interested in, why and what you learned during the in class session, and finally (3) the reflection phase where you will write up your final results (again only one for the group is required). You will write this like a regular paper (MLA style) and will be sure to cite the sources you used and python libraries that went into your code.

## **Proposal**

We have spent time in this course covering important computing topics such as identity and belonging, the use of artificial intelligence, and mostly programming and problem solving using the python3 programming language. We were able to write code to make a scientific calculator (with plotting of course using matplotlib), a choose your own adventure book, a data cleaning, reformatting, transformation and visualization system, audio signal processing tools, image processing tools, a word cloud and language analysis system, biological sequence analysis tools and platform and puzzle video games. Take a moment and look back at all of your **Program and Labs** these will serve as a starting point for your group project. Each response should be a paragraph at minimum (3-5 sentences) except for part [1] which is to rank your assignments.

[1 25pts] Rank the **Program** and **Labs** in order of your favorite to least favorite. The highest-ranking item (value=1) would be the assignment you found the most interesting or fun or had the highest learning value to you. This would be assigned the rank of 1. For example, if my favorite item was Program5 I would express it as: 1:Program5, 2:Program3, ...

[2 50pts] For your top three ranked items in [1] explain your criteria of how these ended up on the top of your list.

[3 50pts] If you had to spend the next three weeks working on a project where you had to spend each class session and the next two Labs doing, what kind of computational project would you want to work on. One way to answer this is to think about [1] and [2] and think where would you want to go next with that? The other way to think about this is to consider what skill or item we covered would you want to develop further and get better at?