1. What problem did you select and why did you select it?
    - Problem:
        - Image recognition from an mp4 video (5 objects)
        - Ability to recognize and tracker (show a border)
            - I'd like to have this track and identify multiple items simultaneously
    - Why:
        - This is based on a project option I have in my Software Engineering class. I'm working alone in this course as well on this project.
2. What database/dataset will you use? Is it large enough to train a deep network?
    - Person Recognition
        - https://www.kaggle.com/datasets/almightyj/person-face-dataset-thispersondoesnotexist
    - Dog and Cat
        - https://www.kaggle.com/datasets/andrewmvd/dog-and-cat-detection
    - Dalek and Lightsaber
        - I plan to follow this tutorial to create my own image database
            - https://codebox.net/pages/neural-network-for-detecting-daleks
3. What deep network will you use? Will it be a standard form of the network, or will you have to customize it?
    - It looks like YOLOv8 and ByteTrack are the leading options for this.
4. What framework will you use to implement the network? Why?
    - Pytorch. From what I can tell, the above networks interface really well with Pytorch.
5. What reference materials will you use to obtain sufficient background on applying the chosen network to the specific problem that you selected?
    - A combination of online search, Udemy search for tutorials, and ChatGPT.
6. How will you judge the performance of the network? What metrics will you use?
    - Accuracy > 85% for all classifications and capable of tracking multiple objects in the frame at once.
        - Ideally, also differentiating between the Sith Lightsaber (which is red) and other lightsabers with >=75% accuracy.
7. Provide a rough schedule for completing the project.
    - 3/27 – get repo setup and proposal sent out.
    - Week of 3/31 – get all image databases downloaded and built
        - If time allows, get the code working with the Person, Dog, and Cat recognition
            - This means I'll need to identify some mp4s to use for testing.
    - Week of 4/7 – Ensure the Dalek and Lightsaber recognition is working (I'm making the assumption that the Person, Dog, and Cat will be fairly straightforward)
        - Start structuring my report
    - Week of 4/14 – Fine tune the code to obtain the expected metrics
        - Continue working on report and start working on presentation
    - Week of 4/28 – Complete all work and push final code, report, and presentation.
        - The README will be created early in the project, but it should be complete by this time.