The following are examples for CS Principles Create Task. For each example explain:

- What information you think is being stored in a list

- What are the options for the conditional statements.

Example: [CSP Create PT Example](https://youtu.be/tQE3bkyaoes)

* List: both French and Spanish colors and their pronunciation.
* Conditional Statement: Choice between French and Spanish.
* [CSP Create PT Sample 1](https://docs.google.com/file/d/1QkAkYVDp5pxuE_g60-vaziOknrEDfwJx/preview)
  + List: All the words for each amount of letters with different starting letters.
  + Conditional Statement: The choice between the amount of letters and the starting letter.
* [CSP Create PT Sample 2](https://docs.google.com/file/d/1G0kHFUkaib8eDEqa6EyGrzsJcf3smBSM/preview)
  + List: The different messages and the icons in a corresponding index to the messages.
  + Conditional Statement: Was the magic 8 ball clicked? What was the message -> corresponds to an icon.
* [CSP Create PT Sample 3](https://docs.google.com/file/d/13medsGUeI2T3BlWcgzebVxlAnVgSKc2e/preview)
  + List: A list of small dogs, a list of medium dogs, and a list of large dogs.
  + Conditional Statement: Which category (small, medium, or large) of dogs was chosen.
* [CSP Create PT Sample 4](https://youtu.be/tEXoC-zYsrU)
  + List: The 2 dimensional array/list that shows the positions of the cells in the game.
  + Conditional Statement: Check if each cell has others around it and act upon that.:
    - Any live cell with two or three live neighbors survives
    - Any ded cell with three live neighbors becomes a live cell
    - All other cells die in the next generation. All other dead cells stay dead.
* [CSP Create PT Sample 5](https://youtu.be/VTtZi_Cr4Cc)
  + List: A list of the inputs from the user categorized into nouns, verbs, and adverbs. A dictionary could be useful here.
  + Conditional Statement: If the person answers “yes” or if they answer “no” to the question “would you like articles such as ‘the’ and ‘and’ to be included or not?”
* [CSP Create PT Sample 6](https://secure-media.collegeboard.org/apc/ap-computer-science-principles-2022-create-performance-task-sample-c-video.mp4)
  + List: The list of letters entered and the list of letters in the correct word, compare the lists.
  + Conditional Statement: If the letter is correct, place it in its corresponding place in the correct word. If it was incorrect, decrease the lives by one. If all letters in the correct word were found, say “You won.” If the lives reach 0, say “You lost” and reveal the correct word.
* [CSP Create PT Sample 7](https://youtu.be/9brnJXEXafg)
  + List: Two-dimensional array to store the location of discs in the connect 4 game.
  + Conditional Statement: Whether 4 of the same player discs are next to each other, then they won. If someone inputs an invalid column number, then ask again.

**Your Turn:**

What program are you planning on for the Create Task. (at least a couple of sentences)

I will create a unit converter to convert millimeters, centimeters, meters, kilometers, lightyears, feet, inches, and other units. I will start with distance, and if I have time, then I will add other units such as weight, time, force, voltage, resistance, and current

What will you store in a list?

I will store the units in a list and their cooresponding conversion factors to the base unit.

Example:

unitWords = [‘mm’, ‘cm’, ‘dm’, ‘m’, ‘dam’, ‘h’, ‘km’]

unitConversions = [‘1000’, ‘100’, ‘10’, ‘1’, ‘0.1’, ‘0.01’, ‘0.001’]

What Conditional Statement will you implement?

I will check what category of units the user selected (distance, time, weight, force, etc.) and display the corresponding options for units of that category for the user to choose from.