Part 1 - Instructions:

In the file part1.py do the following:

Exercise 1:

- Create variables has_homework and has_free_time with values True and False, respectively.
- Determine if you can play video games based on whether you have no homework and have free time. Store the result in a variable and print it.

Exercise 2:

- Create a list named my_pets with at least four different types of pets (as strings).
- Add two more pets to the list at once.
- Remove the first pet from the list.
- Swap the second and last pets in the list.
- Create a new list my_favorite_pets by slicing the middle two pets from my_pets.
- Print both lists.

Exercise 3:

Given the string phrase = "Python programming is fun!", perform the following:

- Count how many times the letter "i" appears.
- Replace "Python" with "Computer".
- Slice the substring "programming is fun" and store it in a new variable.
- Print all results.

Exercise 4:

- Define a tuple my_numbers with six different numbers.
- Print the first and last numbers.
- Attempt to change the second number in the tuple to a different value (note what happens, then remove this portion from the code).

Exercise 5:

- Create a dictionary student_info containing keys for name, grade_level, and favorite_subject.
- Add a new key hobbies with a list of at least three hobbies as its value.
- Change the favorite_subject to something else.
- Print the dictionary before and after the modifications.

Exercise 6:

Given the variables day = "Saturday" and weather = "Sunny",

- Write a conditional that prints "Go for a hike!" if it's Saturday or Sunday and the weather is Sunny.
- Otherwise, print "Stay home and code!".