Python Interactive Bootcamp Practice Task 4

Task Title: String Formatting in Python

Instructions:

This assignment is designed to test your understanding of string formatting in Python.

You are required to write Python code to solve the given problems.

Please make sure to comment your code to explain your thought process.

Submit your assignment as a Jupyter Notebook file.

Problem 1: Basic String Formatting

Write a Python program that does the following:

- 1. Create two variables: name (string) and age (integer).
- 2. Ask the user to input their name and age.
- 3. Use string formatting to display a message like this: "Hello, [name]! You are [age] years old."

Problem 2: Decimal formatting

Write a Python program that does the following:

- 1. Create a variable price (float) with a decimal value.
- 2. Display the price with exactly two decimal places using string formatting. Example output: "The price is \$XX.XX" (where XX.XX is the formatted price).

Problem 3: List Formatting

Write a Python program that does the following:

- 1. Create a list of items (e.g., fruits or cities) containing at least five elements.
- 2. Use string formatting to display the list in the following format: "List of items: [item1], [item2], [item3], [item4], [item5]"

Problem 4: Table Formatting

Write a Python program that does the following:

- 1. Create a list of lists, where each inner list represents a row of data with three columns (e.g., student data: name, age, and grade).
- 2. Use string formatting to display the data in a table format with appropriate headers.

Example output:

Name	Age Grade		
John	18	A	1
Mary	19	B	1
Alice	17	A	I
Bob	20	C	1