Python Interactive Bootcamp Practice Task 2

Task Title: Python Basics

Instructions:

Variable Basics:

1. Create three variables: name, age, and country.
2. Assign your own name, age, and country to these variables.
3. Print out the values of these variables in a human-readable format.

Variable Naming Rules:

1. Declare a variable with an invalid name (e.g., starting with a number or containing spaces).
2. Explain in a comment why this variable name is invalid.
3. Declare another variable with a valid name (e.g., using only letters, numbers, or underscores).
4. Print out the value of the valid variable.

Multiple Variable Assignment:

1. Create three variables: num1, num2, and num3.
2. Use a single line of code to assign the values 10, 20, and 30 to these variables, respectively.
3. Print out the values of these variables.

Data Types:

1. Create a variable called my_list and assign it a list containing any three different data types (e.g., an integer, a string, and a float).
2. Create a variable called my_dict and assign it a dictionary with three key-value pairs. Each key should represent a data type (e.g., 'int', 'str', 'float'), and the corresponding values should be examples of that data type.
3. Print out both the list and dictionary.

Conditional Statements (if-elif-else):

1. Write a Python program that takes user input for their age.
2. Use conditional statements to categorize the age into three groups: "Child" (0-12), "Teen" (13-19), and "Adult" (20 and above).
3. Print out the category based on the input age.

For Loop:

1. Create a For loop that prints the numbers from 1 to 5.

While Loop:

1. Create a while loop that counts down from 10 to 1 and prints each number.

Submission:

Write Python code for each task.

Save your code in a single Jupyter notebook