Python Basics

Assignment Question

PW SKILLS

TOPIC: Python Basics Variable

1. Declare two variables, `x` and `y`, and assign them integer values. Swap the values of these variables without using any temporary variable.

2. Create a program that calculates the area of a rectangle. Take the length and width as inputs from the user and store them in variables. Calculate and display the area.

3. Write a Python program that converts temperatures from Celsius to Fahrenheit. Take the temperature in Celsius as input, store it in a variable, convert it to Fahrenheit, and display the result.

TOPIC: String Based Questions

1. Write a Python program that takes a string as input and prints the length of the string.

2. Create a program that takes a sentence from the user and counts the number of vowels (a, e, i, o, u) in the string.

3. Given a string, reverse the order of characters using string slicing and print the reversed string.

4. Write a program that takes a string as input and checks if it is a palindrome (reads the same forwards and backwards).

5. Create a program that takes a string as input and removes all the spaces from it. Print the modified string without spaces.

Submission Guidelines:

- Answer all the questions in a single Jupyter Notebook file (.ipynb).
- Include necessary code, comments, and explanations to support your answers and implementation.
- Ensure the notebook runs without errors and is well-organized.
- Create a GitHub repository to host your assignment files.
- Rename the Jupyter Notebook file using the format "date_month_topic.ipynb" (e.g., "19th_August_Python_Basics.ipynb").
- Place the Jupyter Notebook file in the repository.
- Commit and push any additional files or resources required to run your code (if applicable) to the repository.
- Ensure the repository is publicly accessible.
- Submit the link to your GitHub repository as the assignment submission.

Grading Criteria:

1. Understanding and completeness of answers: 40%
2. Clarity and depth of explanations: 25%
3. Correct implementation and evaluation of optimizer techniques: 15%
4. Analysis and comparison of different optimizers: 10%
5. Proper code implementation and organization: 10%

Note: *Create your assignment in Jupyter notebook and upload it to GitHub & share that uploaded assignment file link through your dashboard. Make sure the repository is public.*