Assignment #01

Hope to Skills

Free Artificial Intelligence Advance Course

Instructor: Irfan Malik, Dr. Sheraz

Submission:

- Make a Google Collab notebook to implement this assignment.
- In case you face difficulty in creating the Google Collab Notebook Follow these **Steps**
- Submit a. **ipynb** file detailing all the information. No other format will be accepted
- Submission file should be named as **Assignment_01_StudentName.ipynb**
- Deadline for this Assignment is **Tuesday 16-01-2024**
- Strictly follow the submission deadline.
- Make Submission in the **Assignment-01** Google Form and press the submit button.
- Click here to submit the Assignment

What you will learn

- How to create the google Collab Note Book from Scratch.
- Using the basic built in functions and apply the following.

Solve the Following Task

- Create a list named "**fruits**" containing three different fruits and display its items using for loop. **(Marks 10)**
- Create a tuple named "**numbers**" with five random numbers and display its item using for loop. **(Marks 10)**
- Create a set named "**colors**" with three different colors and display its items using for loop. **(Marks 10)**
- Create a dictionary named "**student**" with the following key-value pairs: **(Marks 20)**
    - "**name**" as the key and the student's name as the value.
    - "**age**" as the key and the student's age as the value.
    - "**grade**" as the key and the student's grade as the value.
    - Iterate over the dictionary using the for loop and display its keys

- Iterate over the dictionary using the for loop and display its values

- Create a multi-line string named "**poem**" with a short poem of your choice. **(Marks 5)**
- Write an if statement to check if the length of the "**fruits**" list is greater than **3**. If it is, print "**You have many fruits!**". **(Marks 5)**
- Create a program that takes a student's numerical grade as input and prints a corresponding letter grade. Use if-else statements to classify the grade into categories such as "A," "B," "C," "D," or "F." **(Marks 20)**
    - If the numerical grade is 90 or higher, the corresponding letter grade is "A."
    - If the numerical grade is between 80 and 89 (inclusive), the corresponding letter grade is "B."
    - If the numerical grade is between 70 and 79 (inclusive), the corresponding letter grade is "C."
    - If the numerical grade is between 60 and 69 (inclusive), the corresponding letter grade is "D."
    - If the numerical grade is below 60, the corresponding letter grade is "F."
- Create a program that takes a temperature in Celsius as input from user and classifies it into categories like "Freezing," "Cold," "Moderate," "Warm," or "Hot." Use if-else statements to define the temperature ranges for each category. **(Marks 20)**
    - If the temperature is below -10 degrees Celsius, it's classified as "Freezing."
    - If the temperature is between -10 and 0 degrees Celsius (exclusive), it's classified as "Cold."
    - If the temperature is between 0 and 20 degrees Celsius (exclusive), it's classified as "Moderate."
    - If the temperature is between 20 and 30 degrees Celsius (exclusive), it's classified as "Warm."
    - If the temperature is 30 degrees Celsius or above, it's classified as "Hot."