conditional statement

Problem_01

Task:

Define a variable x with a numeric value.

1. Use an if statement to print "Smaller" if x is less than 10.
2. Use another if statement to print "Bigger" if x is greater than 20.
3. Print "Finish" at the end of the program.

Start coding or generate with AI.

Problem_02

Background:

In biology and zoology, the classification and analysis of animals based on their species and age are fundamental practices. Understanding an animal's species and age group can provide insights into its behavior, habitat, and role in the ecosystem.

Task:

Create a Python program that analyzes and prints information about an animal based on its species and age. The program should:

1. Define variables for the animal's species and age.
2. Use an if statement to check if the species is "lion". If it is, print relevant messages about the lion.
3. Use another if statement to determine if the animal's age is greater than 6 years, indicating it is an adult. If so, print messages that confirm its maturity.
4. End the program with a statement indicating that the analysis is complete.

   Expected Behavior:

- The program should correctly identify the species and age group of the animal and provide corresponding messages.
- It should conclude with a message that the analysis is complete.

Start coding or generate with AI.

Example_03: Multi-way

Problem Statement: BMI Calculator and Classification Tool

Background:

Body Mass Index (BMI) is a widely used measure to classify weight categories, potentially indicating the level of health risks due to weight issues. BMI is calculated based on a person's weight and height and is used to broadly categorize individuals as underweight, normal weight, overweight, or obese. These categories can help in assessing the need for lifestyle changes or medical interventions.

Task:

Develop a Python program that calculates a person's BMI and classifies their weight category. The program should prompt the user to enter their weight in kilograms and their height in feet. It will then calculate their BMI based on these inputs and classify their weight category as underweight, normal weight, overweight, or obese according to the BMI value.

Program Requirements:

User Input:

Prompt the user to input their weight in kilograms (kg).

Prompt the user to input their height in feet.

BMI Calculation:

Convert height from feet to meters (1 foot = 0.3048 meters). Calculate the BMI using the formula: BMI = weight (kg) / height (m)^2.

BMI Classification: Display the calculated BMI. Classify and print the weight category based on the BMI value:

1. Underweight: BMI less than 18.5
2. Normal weight: BMI 18.5 to 24.9
3. Overweight: BMI 25 to 29.9
4. Obese: BMI 30 or more

Expected Behavior: The user inputs their weight and height. The program calculates and displays the BMI. The program indicates the user's weight category based on the calculated BMI.

Start coding or generate with AI.

Example_04: Multi-way

Problem Statement: Reptile Temperature Requirement Classification

Background:

The survival and well-being of reptiles are significantly influenced by their surrounding temperature. Different reptile species have adapted to thrive in various temperature ranges, from cold to hot environments. Understanding a reptile's temperature preference is crucial for habitat conservation, zoological studies, and pet care.

Task:

Develop a Python program that classifies a reptile based on its ideal temperature range. The program should take the temperature requirement of a reptile species as an input variable and use conditional statements to determine and print its preferred environmental temperature range.

```
let the temperature requirement is 28 degree celsius

Now you have to give a feedback based on the requirement

if the requirement is less than 15 degree celsius, the reptile is suited for cold environments.
if the requirement is greater than 35 degree celsius, the reptile is suited for hot environments.
Otherwise that reptile is suited for moderate environments.
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Start coding or generate with AI.
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