

Homework Assignment: Introduction to Conditional Statements in Python

Objective: The primary objective of this assignment is to introduce students to conditional statements in Python, emphasizing decision-making through the use of ``if``, ``elif``, and ``else`` statements.

Problem 1: Basic Conditional Statements

1. Write a Python script that prompts the user to enter an integer. Use an ``if`` statement to check if the number is positive, negative, or zero.
2. Extend the script to include an ``else`` statement. Print an appropriate message if the number is not positive.
3. Implement an ``elif`` statement to check if the number is equal to 0. Print a specific message if the number is zero.

Problem 2: Advanced Decision-Making

4. Create a program that asks the user to input their age. Use conditional statements (``if``, ``elif``, ``else``) to categorize their age into the following groups:
 - 0-12: Child
 - 13-19: Teenager
 - 20-59: Adult
 - 60 and above: Senior
5. Extend the program to check if the user is a teenager with the voting age (18 years old and above). If yes, print a message encouraging them to exercise their right to vote.
6. Write comments in your code to explain the purpose of each conditional statement and provide clarity on the decision-making process.

Additional Tips:

- Utilize online resources, Python documentation, and course materials to reinforce your understanding.
- Collaborate with classmates to discuss concepts and problem-solving.
- Seek assistance from your instructor or classmates if you encounter difficulties.