

Control Structures – If, Elif, Else, and the Boolean Data Types

Model Answer Approach

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Auto-graded task

The model answer to this task evaluates a user's age and returns specific messages based on different age ranges. The program begins by prompting the user to enter their age and storing it in the variable age. Through the use of conditional statements (if, elif, and else), the program categorises the age into predefined ranges and outputs appropriate responses. For example, if the user's age is 100 or above, the program outputs a message reflecting their advanced age; for ages between 65 and 99, the user is encouraged to enjoy retirement. Other age groups, such as those turning 21 or those eligible for a child discount, are also accounted for.

This approach ensures that the code is easy to follow, with clear logic applied to each condition. It highlights how conditional branching in Python can be used to handle multiple scenarios with simple comparisons. The sequential structure of the conditions helps the program respond accurately based on the user's input.

A possible pitfall in this code is the lack of validation for user input. If the user enters a non-integer value (like a string or special character), the program will raise a ValueError. To enhance robustness, input validation could be introduced to handle such cases gracefully.