

## Control Structures – While Loops Model-Answer Approach

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## **Auto-graded task**

The provided solution effectively calculates the average of numbers entered by the user until the user inputs -1. The process begins with initialising variables to store the sum of numbers and the count of valid inputs. These are set to zero at the start.

The code then enters a continuous loop, where it prompts the user to enter a number. If the user inputs -1, the loop breaks, ending the input process. The code checks each input to see if it consists of digits, allowing for negative numbers by stripping a leading - sign. This input validation prevents errors, such as "ValueError" or "ZeroDivisionError," that could occur if the input is non-numeric or blank.

Valid inputs are converted to floats and added to the total sum, while the count of valid inputs is incremented. After the loop ends, the code checks if any valid numbers were entered. If there are valid inputs, it calculates the average by dividing the total sum by the count and displays it. If no valid numbers are entered, it informs the user accordingly.

This method ensures robust input handling and accurate calculation of the average, providing a clear and efficient approach to the task.