Algorithm and data structure homework week-1

Step-by-step Explanation: Sum of Even Numbers

1. Start the program.

2. Initialize a total variable.
   Set total = 0 to store the sum of even numbers.

3. Start a loop that runs 10 times.
   Use a for loop with i = 1 to 10 so the program will take exactly 10 inputs from the user.

4. Read a number from the user each time the loop runs.
   The user enters a value, and it is stored in the variable number.

5. Check if the entered number is even.
   The program tests the condition:
   number % 2 = 0
   If this is true, the number is even.

6. If the number is even, add it to the total.
   When the condition is true, update the sum:
   total = total + number
   If the number is odd, nothing is added.

7. Repeat steps 4–6 until 10 numbers are entered.
   The loop continues until it finishes all 10 iterations.

8. After the loop ends, display the final result.
   The program outputs:
   "Sum of even numbers: " + total

9. End the program.