

SE 1105 PROGRAMMING AND PROBLEM SOLVING I

Week 6

Lab Assignment 1

Task 1: Find Even Numbers

Write a C program that lists all numbers up to a given integer n that are even.

Instructions:

1. Write a function called **listEvenNumbers** that takes one positive integer n as argument and lists all even numbers within the range $[0, n]$.
2. In the main function:
 - Prompt the user to enter a positive integer n .
 - Call the **listEvenNumbers** function with the user's input as argument.

Task 2: Temperature Logger Tracker

Create a simple temperature logging program where the user can log temperatures and view the highest and lowest logged values.

Instructions:

1. Implement a menu system that allows users to choose from the following options: (1) Log Temperature, (2) View Highest Temperature, (3) View Lowest Temperature, and (4) Exit.
2. Initialize three variables: `highestTemp` and `lowestTemp` set to -1 initially, and a `currentTemp` for logging each new temperature.
3. Use a for loop to repeatedly display the menu and process the user's choice until the user selects "Exit."
4. If the user chooses "Log Temperature" prompt them to enter the temperature as an integer.
 - If it's the first temperature being logged, set both `highestTemp` and `lowestTemp` to this value.
 - For subsequent entries, update `highestTemp` if the new temperature is greater, and `lowestTemp` if it's lower.
5. If the user chooses "View Highest Temperature" display `highestTemp`.
6. If the user chooses "View Lowest Temperature" display `lowestTemp`.
7. If the user enters an invalid input, ask the user to enter a new input until a valid input is provided.
8. If the user selects "Exit" display a farewell message with the highest and lowest temperatures recorded.