221005009

B Bukanga

Prac 08 Design

Input Values:

- **Fitness Rewards Array**:
    - Integer values representing rewards for 7 days:
      [5, 15, 9, 24, 0, 4, 54]
- **Total Days**:
    - Constant value: 7

Output Values:

- **CPU Integer Daily Average**:
    - Calculated integer average: 15
- **FPU Float Daily Average**:
    - Calculated floating-point average: 15.85714

Variables:

- fitnessRewards: Array of DWORD (7 integers)
- averageInt: DWORD (stores integer average)
- averageFloat: REAL4 (stores floating-point average)
- totalDays: DWORD (constant with value 7)
- NL: BYTE (newline character for formatting)
- strReward: BYTE (message string for rewards display)
- strCPUAve: BYTE (message string for CPU average display)
- strFPUAve: BYTE (message string for FPU average display)
- openBracket: BYTE (opening bracket for output)
- closeBracket: BYTE (closing bracket for output)
- commaSpace: BYTE (comma and space for formatting)

Algorithm:

1. **Display Rewards**:
    - Output the fitnessRewards array enclosed in brackets.
2. **Calculate Integer Average** (calculateIntAverage):

- Sum all values in fitnessRewards.
- Divide the sum by totalDays and store in averageInt.

3. **Calculate Floating-Point Average** (calculateFloatAverage):
    - Initialize FPU with zero.
    - Sum all values in fitnessRewards using the FPU.
    - Divide the sum by totalDays and store in averageFloat.
4. **Output Results**:
    - Display the integer average with a label.
    - Display the floating-point average with a label.