**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.

