Week 3: Control Flow

W3_Practical.cpp

Objective: Use conditional statements (`if-else`) and loops (`for`) to control program execution. **Task:** Write a program that asks the user for a score out of 100. Based on the score, it should print the corresponding grade (A: 70+, B: 60-69, C: 50-59, Fail: <50). Then, use a `for` loop to print "Well done!" three times if the grade is an A.

Solution:

C++

```cpp
#include <iostream>

int main() {
    int score;
    char grade;

    // Prompt the user for input.
    std::cout << "Please enter your score (0-100): ";
    std::cin >> score; // Read integer input from the user.

    // Use an if-else if-else chain to determine the grade.
    if (score >= 70 && score <= 100) {
        grade = 'A';
    } else if (score >= 60) {
        grade = 'B';
    } else if (score >= 50) {
        grade = 'C';
    } else {
        grade = 'F'; // 'F' for Fail
    }

    std::cout << "Your grade is: " << grade << std::endl;
```

```cpp
    // Use an if statement and a for loop for a special message.
    if (grade == 'A') {
        for (int i = 0; i < 3; ++i) {
            std::cout << "Well done!" << std::endl;
        }
    }


    return 0;
}
```