Programming Fundamentals:
Conditional Problems

Write a Program that prints today is cold if the temperature is below 25 or hot (above 25). The temperature range is from 0 to 50

Nested Conditional Statements are conditional statements that have the condition(s) within the statement of another condition. The syntax looks like

If (Condition1) {

If (Condition2){

Statement;

}

*Sometimes two conditions are combined using logical operators of **and** or **not***

Write a Program which prints if the number is positive.

```cpp
#include <iostream>
using namespace std;
int main() {
    float temp;
    cout << "Enter Temperature: ";
    cin >> temp;
    if (temp > 25) {
        if (temp <= 50)
            cout << "Its hot today" << endl;
        else
            cout << "Out of range" << endl;
    }
    else if (temp < 25) {
        if (temp >= 0)
            cout << "Its cold today" << endl;
        else
            cout << "Out of range" << endl;
    }
    return 0;
}
```

```
Enter Temperature: 35
Its hot today

Process finished with exit code 0
```

Write a Program to check the weather condition.

```cpp
#include <iostream>
using namespace std;
int main() {
    float temp;
    cout << "Enter Temperature: ";
    cin >> temp;
    if (temp > 25) {
        if (temp <= 50)
            cout << "Its hot today" << endl;
        else
            cout << "Out of range" << endl;
    }
    else if (temp < 25) {
        if (temp >= 0)
            cout << "Its cold today" << endl;
        else
            cout << "Out of range" << endl;
    }
    return 0;
}
```

```
Enter Temperature: 15
Its hot today

Process finished with exit code 0
```

Write a Program to check the weather condition.

```cpp
#include <iostream>
using namespace std;
int main() {
    float temp;
    cout << "Enter Temperature: ";
    cin >> temp;
    if (temp > 25) {
        if (temp <= 50)
            cout << "Its hot today" << endl;
        else
            cout << "Out of range" << endl;
    }
    else if (temp < 25) {
        if (temp >= 0)
            cout << "Its cold today" << endl;
        else
            cout << "Out of range" << endl;
    }
    return 0;
}
```

```
Enter Temperature: -5
Out of range

Process finished with exit code 0
```

Write a Program to check the weather condition.

```cpp
#include <iostream>
using namespace std;
int main() {
    float temp;
    cout << "Enter Temperature: ";
    cin >> temp;
    if (temp > 25) {
        if (temp <= 50)
            cout << "Its hot today" << endl;
        else
            cout << "Out of range" << endl;
    }
    else if (temp < 25) {
        if (temp >= 0)
            cout << "Its cold today" << endl;
        else
            cout << "Out of range" << endl;
    }
    return 0;
}
```

```
Enter Temperature: −5
Out of range

Process finished with exit code 0
```

Write a Program to check the weather condition (using logical operations).

```cpp
#include <iostream>
using namespace std;
int main() {
    float temp;
    cout << "Enter Temperature: ";
    cin >> temp;
    if (temp > 25 && temp <= 50) {
        cout << "Its hot today" << endl;
    }
    else if (temp < 25 && temp >=0) {
        cout << "Its cold today" << endl;
    }
    else {
        cout << "Out of range" << endl;
    }
    return 0;
}
```

```
Enter Temperature: 15
Its cold today

Process finished with exit code 0
```

Write a Program to check the weather condition (using logical operations).

```cpp
#include <iostream>
using namespace std;
int main() {
    float temp;
    cout << "Enter Temperature: ";
    cin >> temp;
    if (temp > 25 && temp <= 50) {
        cout << "Its hot today" << endl;
}

    else if (temp < 25 && temp >=0) {
        cout << "Its cold today" << endl;
}

    else {
        cout << "Out of range" << endl;
}

    return 0;
}
```

```
Enter Temperature: 35
Its hot today

Process finished with exit code 0
```

Write a Program to check the weather condition (using logical operations).

```cpp
#include <iostream>
using namespace std;
int main() {
    float temp;
    cout << "Enter Temperature: ";
    cin >> temp;
    if (temp > 25 && temp <= 50) {
        cout << "Its hot today" << endl;
    }
    else if (temp < 25 && temp >=0) {
        cout << "Its cold today" << endl;
    }
    else {
        cout << "Out of range" << endl;
    }
    return 0;
}
```

```
Enter Temperature: 55
Out of range

Process finished with exit code 0
```

Write a Program that prints the timetable of the day.

Some problems take a lot of if-else conditions(7 in the previous example). We can use switches here. Syntax of Switches are

```
switch (variable) {
    case value_1:
        Statement_1;
        break;
    case value_2:
        Statement_2;
        break;
    case value_3:
        Statement_3;
        break;
        ...
        ...
    case value_n:
        Statement_n;
        break;
    }
```

Conditional Problem

Write a Program that prints the timetable of the day.

```cpp
#include <iostream>
using namespace std;
int main() {
    float temp;
    cout << "Enter Day: ";
    cin >> temp;
    switch(temp){
        case 1:
            cout << "Maths, English";
            break;
        case 3:
            cout << "Science, English";
            break;
        case 5:
            cout << "Maths, Science";
            break;
        case 2:
        case 4:
            cout << "History, Geography";
            break;
        default:
            cout << "Invalid Input";
    return 0;
}
```