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**COMPUTER ENGINEERING**

**INTRODUCTION TO COMPUTER ENGINEERING**

**TITLE OF HOMEWORK**

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**SİVAS**

**THE DIFFERENCE BETWEEN IF AND SWİCH**

#include <iostream>

using namespace std;

int main() {

int number;

cout << "Enter a number: ";

cin >> number;

// Using if statement

cout << "Using if statements: ";

if (number >= 0 && number <= 5) {

cout << "The number is between 0 and 5." << endl;

}

else if (number > 5 && number <= 10) {

cout << "The number is between 5 and 10." << endl;

}

else {

cout << "The number is greater than 10." << endl;

}

}

#include <iostream>

using namespace std;

int main() {

int number;

cout << "Enter a number: ";

cin >> number;

// Using switch statement

cout << "Using switch statement: ";

switch (number) {

case 0:

case 1:

case 2:

case 3:

case 4:

case 5:

cout << "The number is between 0 and 5." << endl;

break;

case 6:

case 7:

case 8:

case 9:

case 10:

cout << "The number is between 5 and 10." << endl;

break;

default:

cout << "The number is greater than 10." << endl;

}

}

if structure and switch structure basically do the same function. there are 2 different codes above that do the same job. As someone who has been dealing with software for a long time, I have many observations. the swich structure generally works faster and more performant. I think it can be debugged more easily. but the if-else structure has a much more flexible structure. and this structure is generally preferred in very complex jobs. in the codes above there are 2 different codes that do the same job, but for stable versions of c++, I think the swich-case structure is not much more flexible than the if-else structure. although the differences I mentioned are not felt for codes that do not require much processing. when the processing load increases, we can observe the difference more clearly.