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Introduction to Control Statements in C

In C, the control flows from one instruction to the next instruction until now in all programs. This

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control declarations. Below we will discuss the types of Control Statements in C.

Types of Control Statements in C

C also supports an unconditional set of branching statements that transfer the control to another location in the program. Selection declarations in C.

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1. If statements (https://www.educba.com/if-statement-in-r/)
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4. Goto Statement (https://www.educba.com/goto-statement-in-c-plus-plus/)
5. Loop Statements

1. If Statements

If statement (https://www.educba.com/if-statement-in-c/) enables the programmer to choose a set of instructions, based on a condition. When the condition is evaluated to true, a set of instructions will be executed and a different set of instructions will be executed when the condition is evaluated to false. We have 4 types of if Statement which are:

1. If..else

2. Nested if

3. Else if ladder

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In this statement, there are two types of statements execute. First, if the condition is true first statement will execute if the condition is false second condition will be executed.

Syntax:

```
If(condition)
{
Statement(s);
}
else
{
Statement(s)
}
Statement
```

- **Nested if**

If the condition is evaluated to true in the first if statement, then the condition in the second if statement is evaluated (https://www.educba.com/if-statement-in-matlab/) and so on.

Syntax:

```
If(condition)
{
If(condition)
{
```

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```
Statement(s)

}

}
```

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- **else if Ladder**

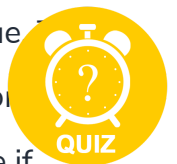The corresponding array of instructions is executed when the first condition is correct. If the

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```
If(condition)

{

Statement(s);

}

Else if(condition)

{

Statement(s);

}

else if(condition)

{

Statement(s)

}

…

Else

{

Statement(s)

}

Statement(s);
```

- **Null else or Simple else**

If the programmer can execute or skip a set of instructions based on the condition value, a simple one-way statement is selected. A set of statements is carried out if the condition If the condition is false, the control will proceed with the following declaration after the if

declaration. Simple else statement:

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```
{
Statement(s);
}
Statement(s);
```

2. Switch Statement

C offers a selection statement in several ways as if the program becomes less readable when the number of conditions increases. C has a multi-way selection statement called the switch statement (https://www.educba.com/switch-statement-in-c/) that is easy to understand to resolve this problem. The switch declaration is easy to understand if more than 3 alternatives exist. The command switches between the blocks based on the expression value. Each block will have a corresponding value.

Syntax:

```
Switch(expression)
{
Case label1:
Statement(S);
Break;
Case label2:
Statement(S);
Break;
Case label3;
Statement(s);

Break;
```

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```
Default:

Statement(s);

Break;

}
```

Using the case keyword every block is shown and the block label follows the case keyword. The default block and [the break statement (https://www.educba.com/break-statement-in-c/)](https://www.educba.com/break-statement-in-c/) are optional [in a switch statement (https://www.educba.com/python-switch-statement/)](https://www.educba.com/python-switch-statement/).

3. Conditional Operator Statement

C language provides an unusual operator, which is represented as a conditional operator.

Syntax:

```
(condition)? expr1: expr2
```

Expr1 is executed when the condition is valid. Then Expr2 will be executed if the statement is incorrect.

4. goto Statement

[goto statement (https://www.educba.com/goto-statement-in-c/)](https://www.educba.com/goto-statement-in-c/) is known for [jumping control statements (https://www.educba.com/control-statement-in-javascript/)](https://www.educba.com/control-statement-in-javascript/). It is used to transfer the control of the program from one block to another block. goto keyword is used to [declare the goto statement (https://www.educba.com/goto-statement-in-c-sharp/)](https://www.educba.com/goto-statement-in-c-sharp/).

Syntax:

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the labelname and statements followed by the labelname will be executed.

5. Loop Statements

The programmer may want to repeat several instructions when writing C programs until some requirements are met. To that end, C makes looping declarations for decision-making. We have three types of loops,

1. For Loop
2. While Loop
3. Do While Loop (https://www.educba.com/do-while-loop-in-matlab/)

For Loop

In the For loop, the initialization statement is executed only one time. After that, the condition is checked and if the result of condition is true it will execute the loop. If it is false, then for loop is terminated. However, the result of condition evaluation is true, statements inside the body of for loop gets executed, and the expression is updated. After that, the condition is checked again. This process goes on until the result of the condition becomes false. When the condition is false, the loop terminates.

Syntax:

```
for( initialization statement; condition)
{
//statements inside the loop
}
```

While Loop

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Syntax:

```
While(condition)
{
//statements inside the loop
}
```

Do While Loop

Unlike while loop, the body of the do is the difference between while and … while loop is guaranteed to be done once at a time.

Syntax:

```
Do
{
//statements inside the loop
}
While(condition);
```

Conclusion

In this article, we have seen what are the various control statements in C along with their syntax and examples.

Recommended Article

This is a guide to Control Statements in C. Here we discuss the different types of Control

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2. Break Statement in Python (https://www.educba.com/break-statement-in-python/)

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