

Control Statements

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11:04 PM

Generally, the statements in a program get executed in the order in which they are written. This is referred as **Sequential Execution**. If the programmer wants to execute some statements even before other statements by surpassing the order, he must transfer the control of the program temporarily. This can be achieved with control structures like if, for and switch etc.,

If – else – else if structures

The ‘if’ structure is called as a single selection structure because it selects or ignores a single action. The if ..else structure is said to be double selection structure because it selects either of two different actions.

Switch Structure

If is for single selection and if.. else is for double selection. When there is a situation where multiple conditions are to be evaluated then it is always better to use switch structure. The switch structure contains a set of case labels, and an optional default case. Each case label is terminated by a statement break.

```
switch(condition/expression)
```

```
{
```

```
case constant:
```

```
case constant:
```

```
default:
```

```
statements; break;
```

```
statements; break;
```

```
<<<<<..
```

```
statements; break;
```

```
}
```

Here case, break, default are the keywords.

While Structure:

While & For structures are said to be repetitive control structures or looping structures as the programmer can repeat the execution of the same statements as many times as required. The process of executing a block of statements terminates when the condition becomes false.

Syntax: While(condition)

```
{
```

```
Set of statements'
```

```
}
```

do... while Structure :

The do... while structure is a bit different from while. In while, the condition is checked first and then the statements in the loop are evaluated where as in do...While structure, the statements in the loop are executed first and then the condition is evaluated.

Syntax:

```
do
```

```
{
```

```
Set of statements;
```

```
}
```

```
While(condition);
```

For Structure:

The ‘for’ structure is also a looping structure that performs a statement / a block statements for a specified no. of times. In other words, for control structure may be used if the no. of iterations is definite

Syntax:

```
for(initialization; condition;
```

```
incrementation/decrementation)
```

```
{
```

```
Statements
```

```
}
```

In JDK1.5, a new version of for control structure was introduced. The syntax follows:

```
for (identifier in Range)
```

```
{
```

```
Set of statements;
```

```
}
```