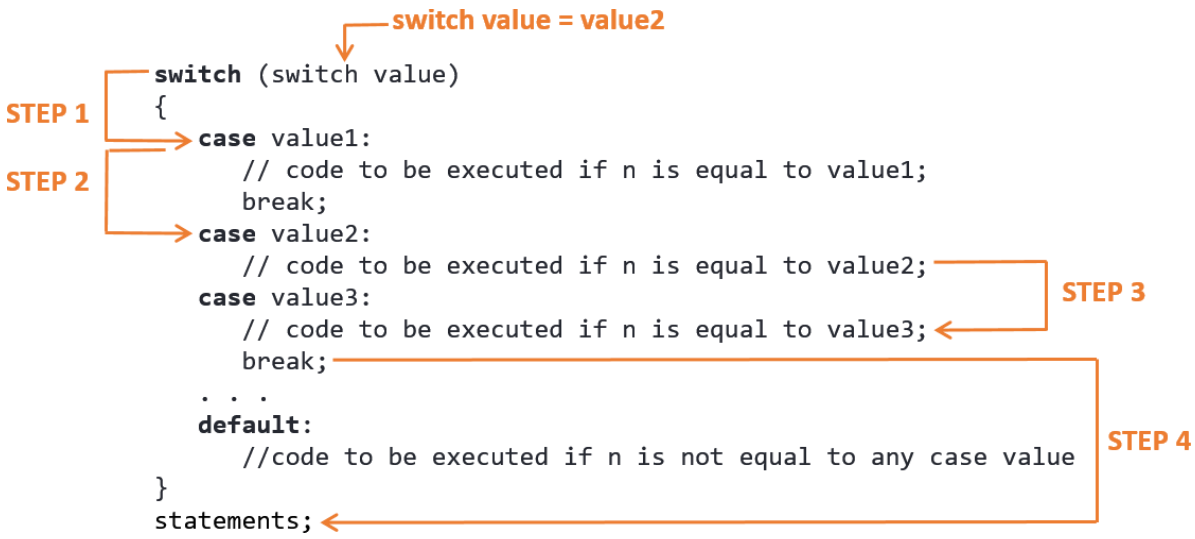
Lecture 5. Switch Statement

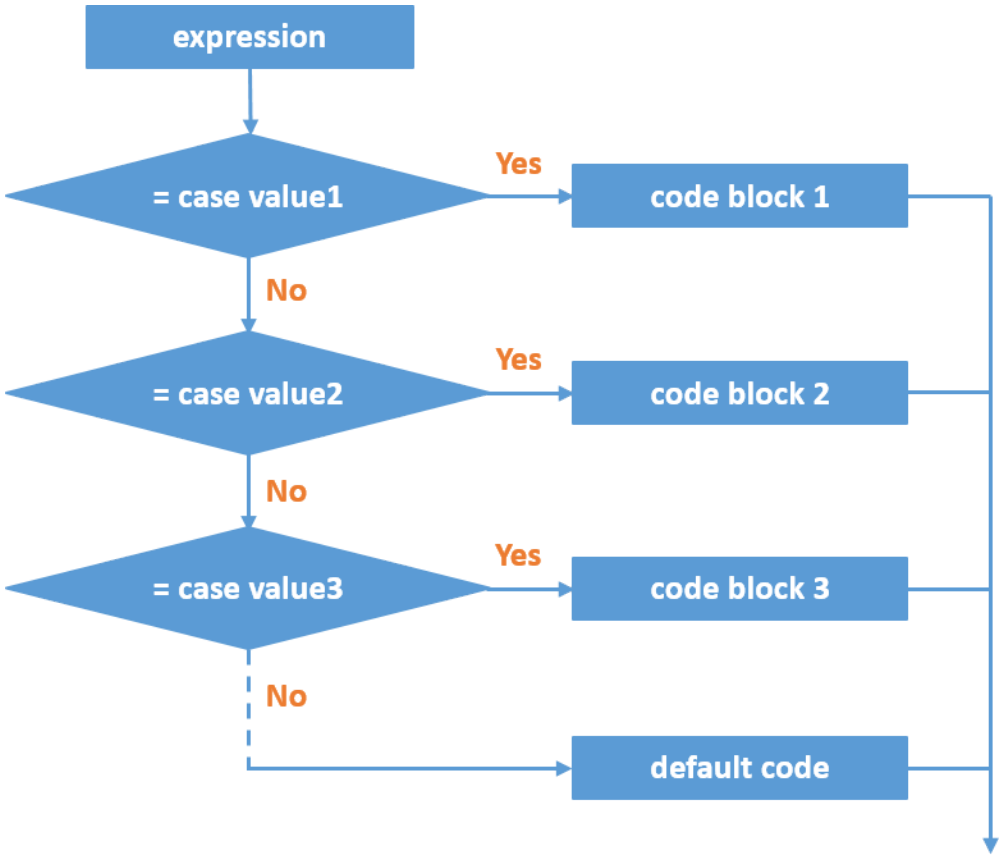
Switch statement is used to easily select one option from a number of options when making a decision.

How it works?

A **switch value** is compared to a list of values called **cases**. The switch value might be a variable, an expression, or a direct value.
Whenever is found that the switched value is equal to a case value, the block of code associated with that case is executed.
The execution continues with the statements of the next case (or cases) until the **break** statement is encountered.
The **break** statement is used to prevent the execution of the case or cases that follow. The **break**
statement is optional.
If no case value is found to be equal to the switched value, a special case called **default** is executed. The default case is optional.

Syntax





switch Statement Flowchart

Rules to follow when using **switch** statement:

switch and **case** are keywords; must be written in lower case letters.

Relational operators are not allowed in switch statement.

The data type of case value and the switch value must be the same: **integer** or **character**.
A switch statement can have any number of cases.
Each case is followed by the case value and colon (':').
Two or more cases can share one break statement.
The case values can be in any order.

The **default** can be placed anywhere in the switch.
No break is needed in the **default** case.

Example:

```
int i= 2;
switch (i)
{
  case 1:
     printf("too low");
     break;
  case 2:
  case 3:
     printf("good number");
     break;
  default:
     printf("too high");
}
```

References

Tan, H.H., and T.B. D'Orazio. *C Programming for Engineering & Computer Science*. USA: WCB McGRaw-Hill. 1999. Print.

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"C switch...case Statement." *C switch...case Statement*. N.p., n.d. Web. 14 Feb. 2017. <https://www.programiz.com/c-programming/c-switch-case-statement>.