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- **Project Name :** Introduction to Web Standards and JavaScript Concepts and Fundamentals

- **Task Name:** Control Structures in JavaScript

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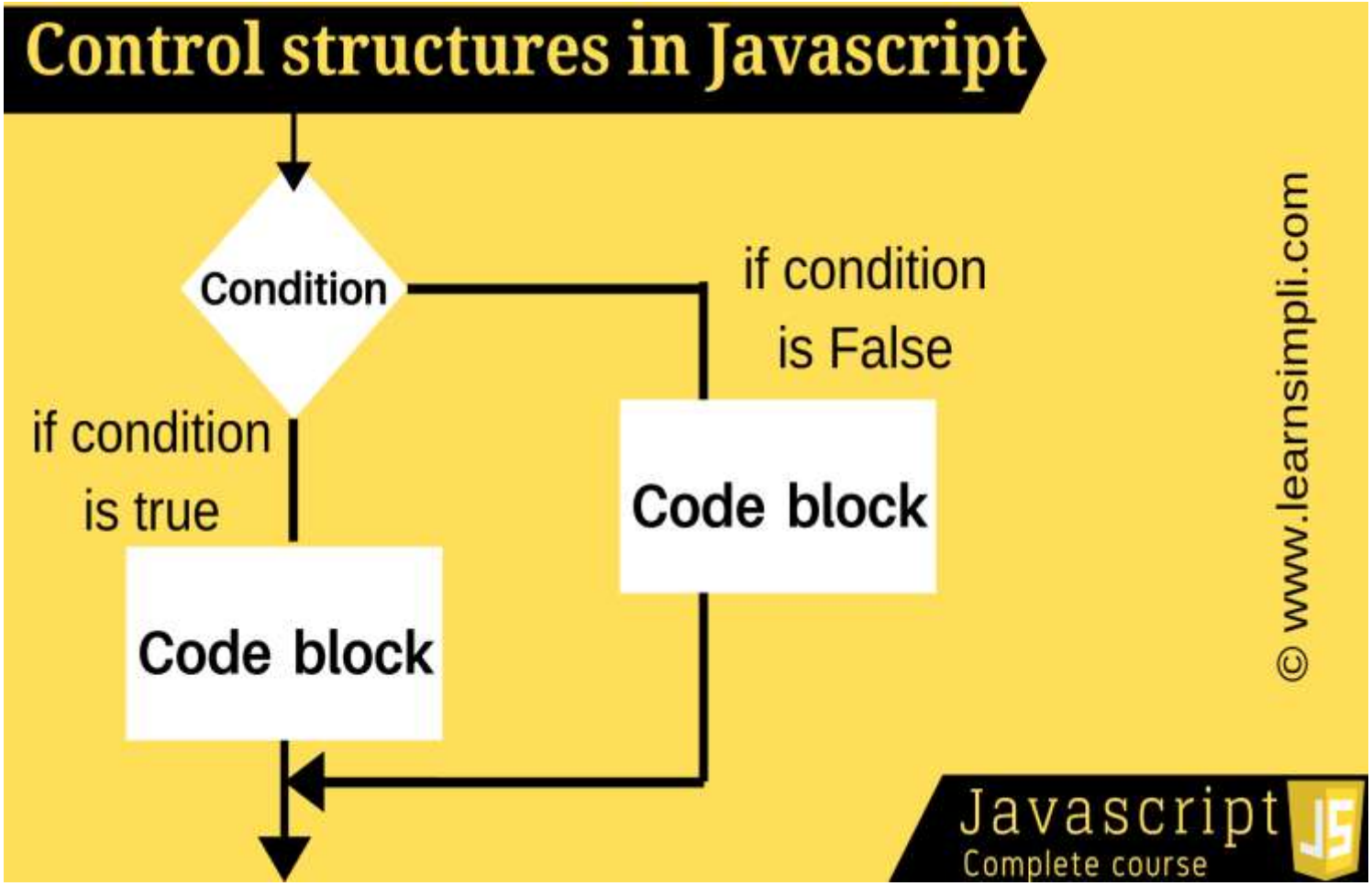
control structures in JavaScript

- JavaScript control structures are like the building blocks of a program, and they allow you to control the flow of execution. Control structures allow you to decide which pieces of code should run based on certain conditions.

- Control structures are essential in JavaScript because they allow you to write programs that can make decisions and perform different actions based on those decisions.

- It consists of conditional statements, loops and functions.


Control structures in Javascript
Condition
if condition
is True
Code block
if condition
is False
Code block
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Javascript
Complete course

Type of conditional statements.

- *There are two types of conditional statements:*

1) *If-else*

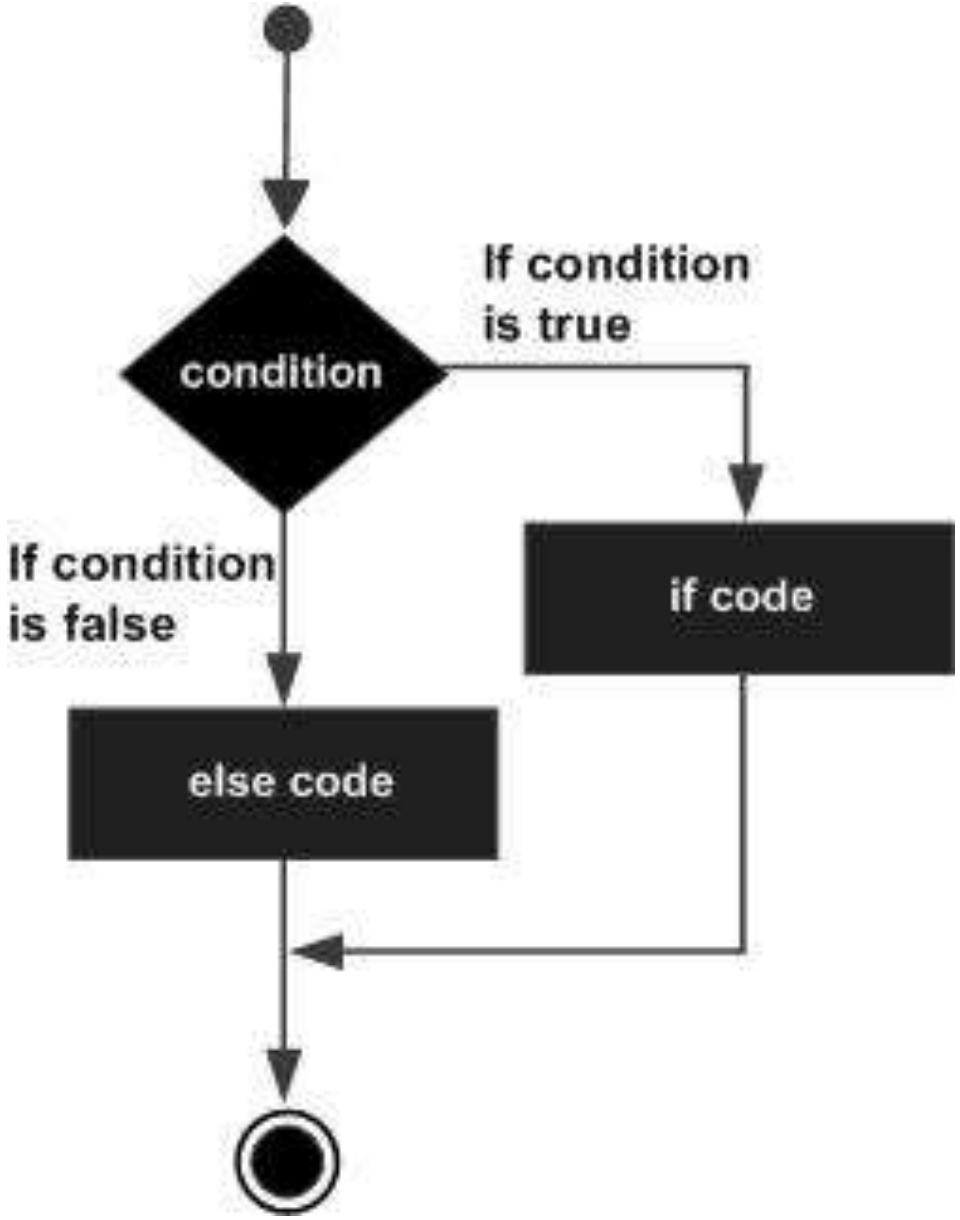
2) *Switch*

IF-ELSE

❖ In JavaScript, the if statement is used to check if a certain condition is true, and then execute a block of code if it is true. The else statement is used to specify what should happen if the condition is not true.

❖Syntax :

```
if(expression){
//content to be evaluated if condition is true
}
else{
//content to be evaluated if condition is false
}
```


condition
If condition
is true
If condition
is false
if code
else code

Switch statement

- The switch statement is used to perform different actions based on different conditions.

- The value of the expression is compared with the values of each case.

- If there is a match, the associated block of code is executed.

- If there is no match, the default code block is executed.

Syntax :

```
switch(expression) {
  case x:
    // code block
    break;
  case y:
    // code block
    break;
  default:
    // code block
}
```

Types of Loop

❖ Mostly three types of loops are used in control structure of JavaScript.

1) For Loop
2) While Loop
3) Do-while Loop

For Loop

- The JavaScript for loop iterates the elements for the fixed number of times.

Example:

```
<script>
for (i=1; i<=5; i++)
{
Console.log(i);
}
</script>
```

While Loop

- The JavaScript while loop iterates till the condition is true.
- It is useful for iterating infinite loops.

- Example:

```
var i=11;
while (i<=15)
{
Console.log(i );
i++;
}
```

Do-While Loop

- The JavaScript do while loop iterates the elements for the infinite number of times like while loop. But, code is executed at least once whether condition is true or false.

Example : var i=21;

```
do{
Console.log(i )
i++;
}while (i<=25);
```

Functions

- A JavaScript function is a block of code designed to perform a particular task.

- A JavaScript function is executed when "something" invokes it (calls it).

- A JavaScript function is defined with the function keyword, followed by a **name**, followed by parentheses **()**.

- Same function can be used repeatedly for different programs.

Example:

```
Function add (a,b)
{
return a+b;
}
```

Inputs : add(5,7);

Output : 12

Thank
You