# Creating Dynamic and Interactive Web Page

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## Conditional Checking

- Conditional statements are used to perform different actions based on different conditions.
- In JavaScript we have the following conditional statements:
  - Use if to specify a block of code to be executed, if a specified condition is true
  - Use **else** to specify a block of code to be executed, if the same condition is false
  - Use **else if** to specify a new condition to test, if the first condition is false
  - Use **switch** to specify many alternative blocks of code to be executed.

#### The else Statement

• Use the **else statement** to specify a block of code to be executed if the condition is false.

```
Syntax:
if (condition)
  block of code to be executed if the condition is true
else
  block of code to be executed if the condition is false
```

#### The if Statement

• Use the **if statement** to specify a block of JavaScript code to be executed if a condition is true.

```
    Syntax:
    if (condition)
    {
    block of code to be executed if the condition is true
    }
```

#### The else Statement

• Use the **else statement** to specify a block of code to be executed if the condition is false.

```
Syntax:
if (condition)
  block of code to be executed if the condition is true
else
  block of code to be executed if the condition is false
```

#### The else if Statement

- Use the **else if statement** to specify a new condition if the first condition is false.
- Syntax: if (condition1) { block of code to be executed if condition1 is true else if (condition2) { block of code to be executed if the condition1 is false and condition2 is true } else { block of code to be executed if the condition 1 is false and condition2 is false

#### The Switch Statement

• Use the **switch** statement to select one of many blocks of code to be executed.

```
• Syntax:
switch(expression) {
  case n:
     code block
     break;
  case n:
     code block
     break;
  default:
     default code block
```

### The loop Statement

- Loops can execute a block of code a number of times.
- Loops are handy, if you want to run the same code over and over again, each time with a different value.
- JavaScript supports different kinds of loops:
  - for loops through a block of code a number of times
  - while loops through a block of code while a specified condition is true
  - do/while also loops through a block of code while a specified condition is true.
  - for/in loops through the properties of an object

## The for loop Statement

- Loops can execute a block of code a number of times.
- The for loop has the following syntax:

```
for (statement 1; statement 2; statement 3) {
   code block to be executed
}
```

- Statement 1 is executed before the loop (the code block) starts.
- **Statement 2** defines the condition for running the loop (the code block).
- **Statement 3** is executed each time after the loop (the code block) has been executed.

## The While loop Statement

- The while loop loops through a block of code as long as a specified condition is true.
- The while loop has the following syntax:

```
while (condition) {
   code block to be executed
}
```

- **Statement 1** is executed before the loop (the code block) starts.
- **Statement 2** defines the condition for running the loop (the code block).
- **Statement 3** is executed each time after the loop (the code block) has been executed.