Day 1

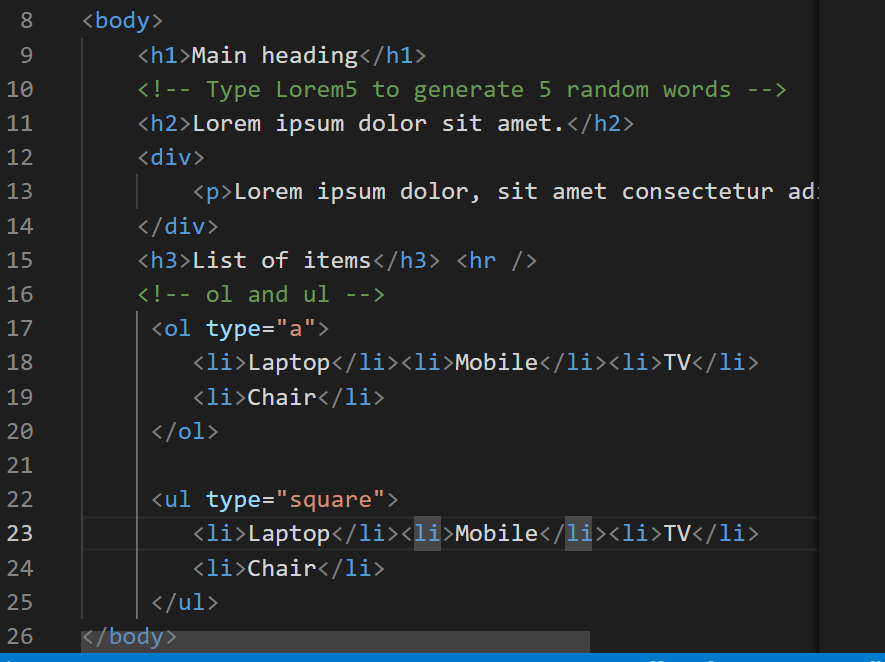
HTML, CSS & SASS/SCSS

HTML: Hyper Text Markup Language - Display the content

CSS - Cascading Style Sheet - Style

HTML file

Lists & headings



Output:



You can create HTML tables, forms and other elements

CSS:

It is used mainly to add the styles to HTML elements

RWD

It helps to fit your web page to all types of devices it could be desktop, mobiles, printing devices, tablets

Same HTML content to render differently in different devices

Medi Query: it applies the styles based on the conditions.

Grid: It arranges the elements in row & column format

Flex: It automatically arranges the elements based on the size like horizontally or vertically.

{display: flex }

SASS

Syntactically Awesome Style sheets

It avoids lot of boiler plate code which you write in CSS

SASS -> SCSS (this resembles css syntax), but sass follows indentation syntax

SASS syntax  
$font-style: arial;  
$color: blue

h1   
 color: $color;  
 font-family: $font-style

SCSS syntax:

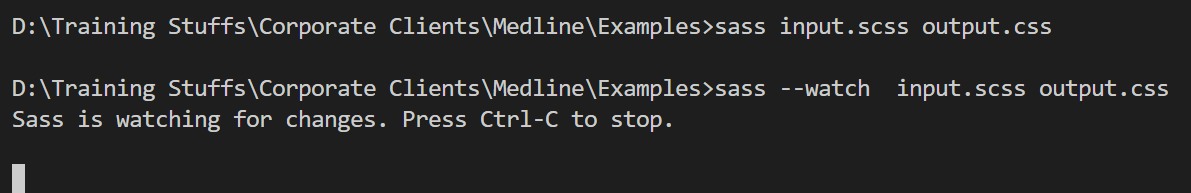
$color: blue;  
$font-style: arial;  
h1 {   
 color: $color;  
 font-family: $font-style;  
}

Install sass

npm install -g sass

To compile scss to css

sass input.scss output.css



--watch lets you to automatically compile scss to css

Mixins

These allow you to reuse the group of CSS declarations.

@mixin shape($color, $width, $height) {   
 width: $width;  
 height: $height;  
 background-color: $color;  
}   
.square {  
 @include shape(blue, 400px, 400px);   
}  
.rectangle {  
 @include shape(red, 400px, 200px);  
}

Parent selector

It is used in nested selector to refer the outer selector

.alert {  
 &:hover { color: red }  
}

In CSS you write

alert : hover { color: red; }

Placeholder

It is to reuse some selectors using inheritance

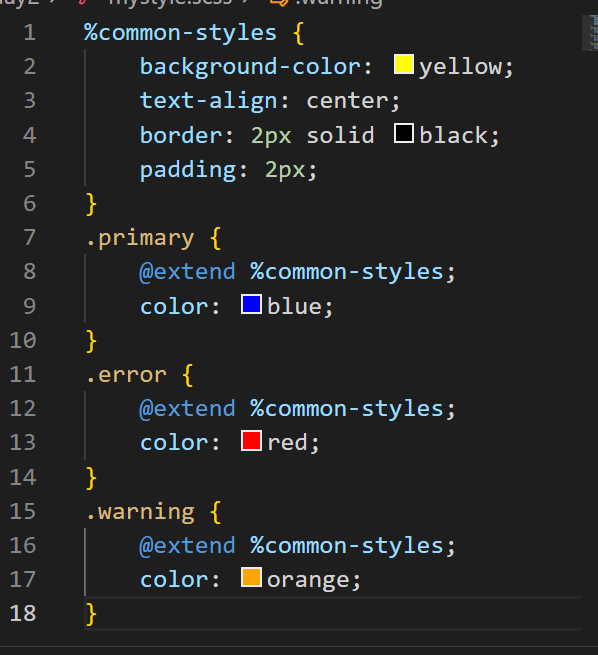
%name {  
 // css selectors  
}

.primary {  
 @extend %name;  
 color: blue;  
}  
.secondary {  
 @extend %name;  
 color: grey;  
}

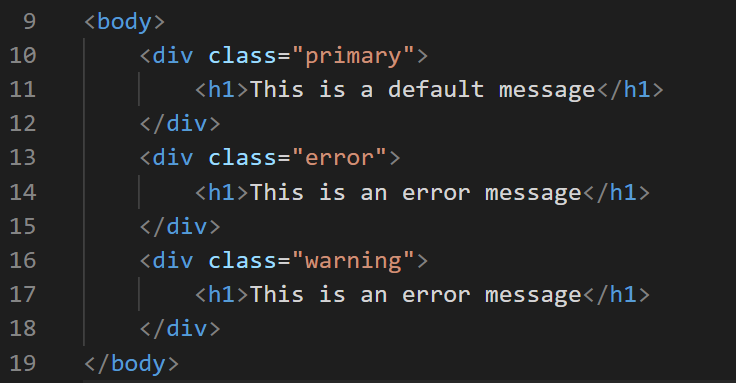
How to compile multiple SASS files

sass --watch file1.scss : file1.css file2.scss : file2.css

day2/mystyle.scss



index.html



Output:



Special functions:

SCSS provides various functions to perform complex operations

$colors: red, green, blue;  
.error { color : nth($colors, 1) }

.warning { color: nth($colors, 2) }

Mixing colors using mix()

.mixed-color { color: mix(red, green, 60%) }

Here 60% red & 40% green

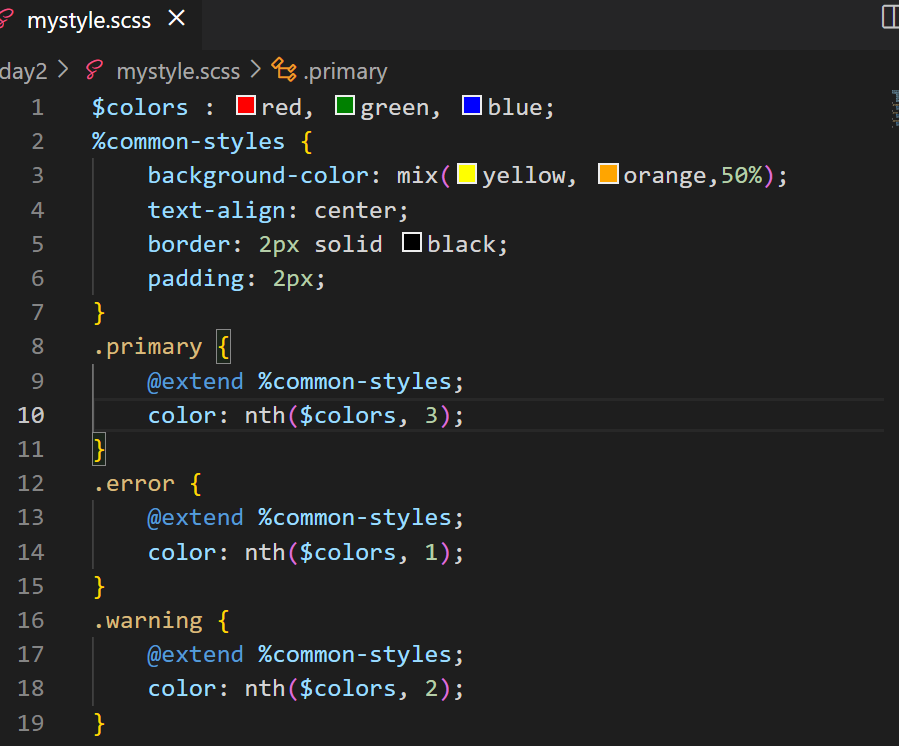
Note: You can only mix two colors, however you can get the reference of two colors and pass the color again to the mix

mix(mix(red, green, 60%), blue, 50%)

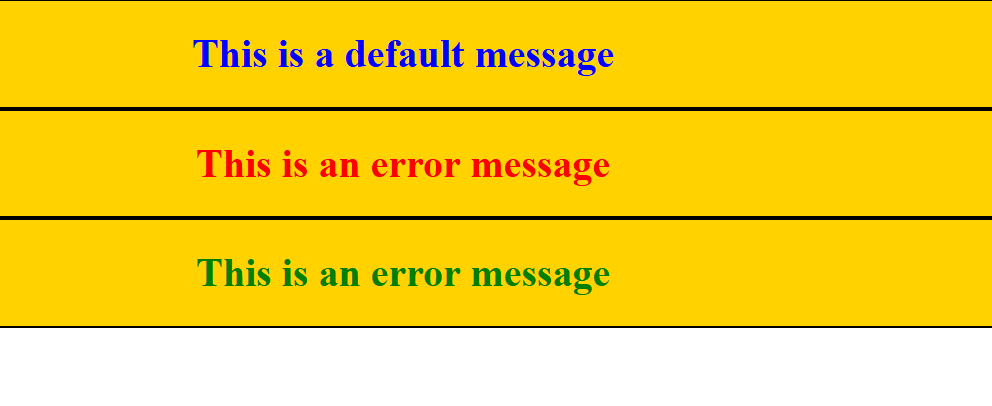
Round up the numbers

font-size: round(19.6px); // font-size: 20px

scss



Output:



SASS official document

@if & @else if : these are used to apply the CSS on a conditional based

!default: to provide a default values when the property doesn’t have a value

<https://sass-lang.com/guide/>

Javascript

HTML - displaying the content

CSS - styling the HTML

Javascript - It adds effects the web page by dynamically accessing HTML & CSS, it has various features like

* variables
* operators
* datatypes
* functions
* objects
* arrays
* conditional statement
* loops
* form validations

There are two ways you can execute Javascript

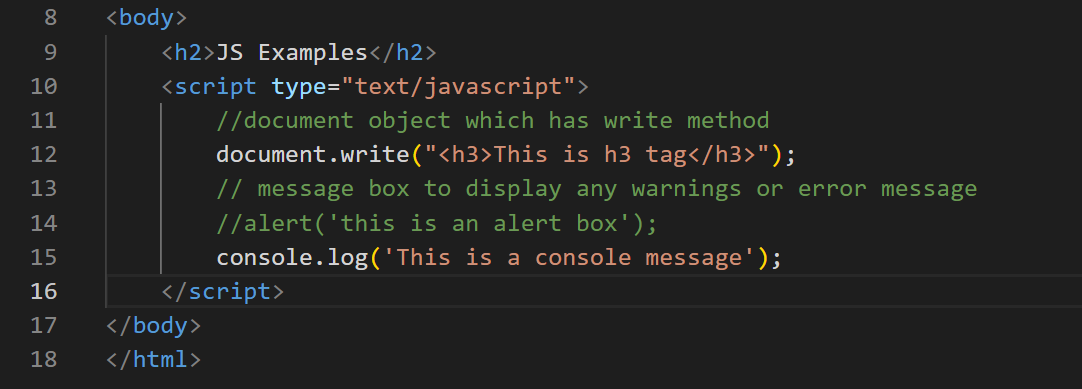
1. Using browser at the front-end
2. Using Node.js at the backend

Strings in Javascript: You can either use single or double quotes

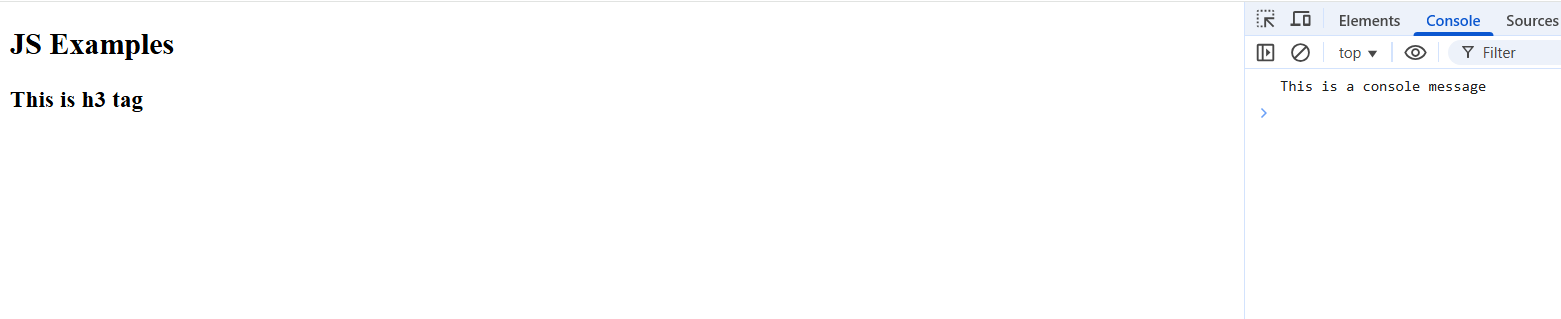
Note: single quote is not treated as character it is treated as string itself

Note: semicolon is optional in Javascript as long as you keep the statements in the new line

JS hello world program



Output:



Fundamentals of Javascript

1. Variables
2. Datatypes
3. Operators
4. Conditional Statements
5. Loops

Variables: It is to store the data in Javascript

old approach is to use var keyword

var employeeId = 1234;  
var employeeName = “Siddharth”;

I can assign different values to the same variable with different types

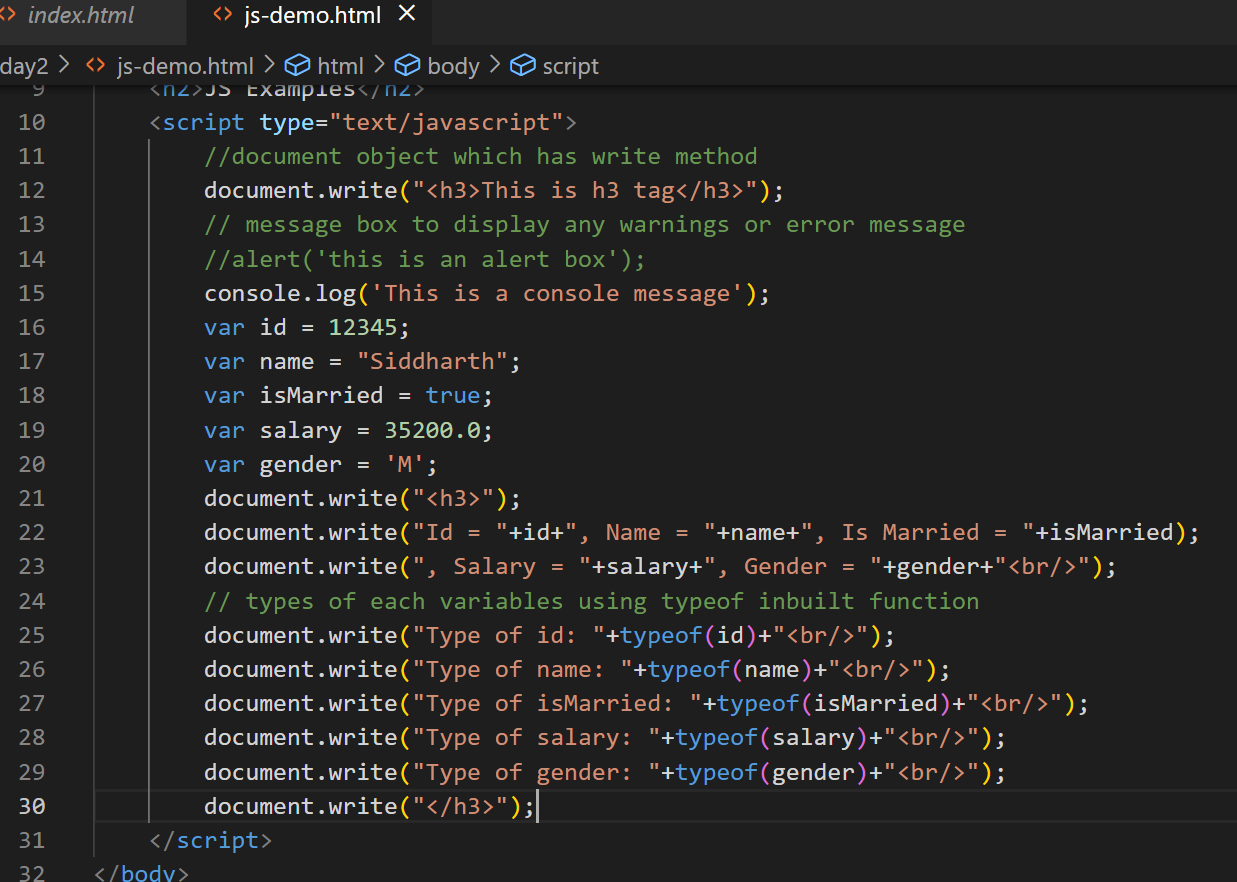
employeeId = “12345” or employeeId = true

Datatypes in Javascript

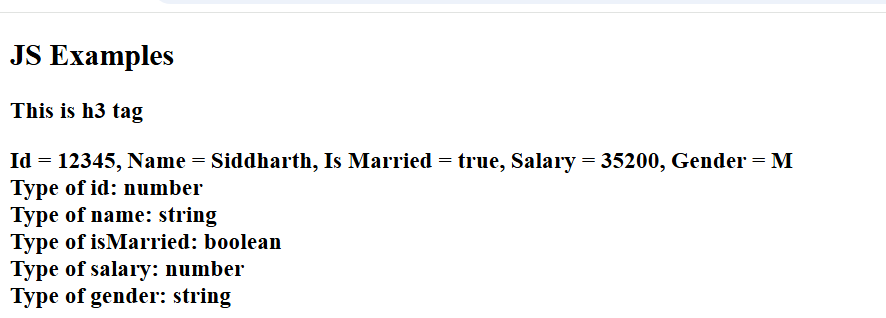
In Javascript variables get the types based on the type of value, you can use an inbuilt function in javascript typeof(variableName) to get the datatype

document.write(typeof(employeeId); // number or string or boolean

jsdemo.html



Output:



Javascript operators

Arithmetic operators: +, -, \*, /, %

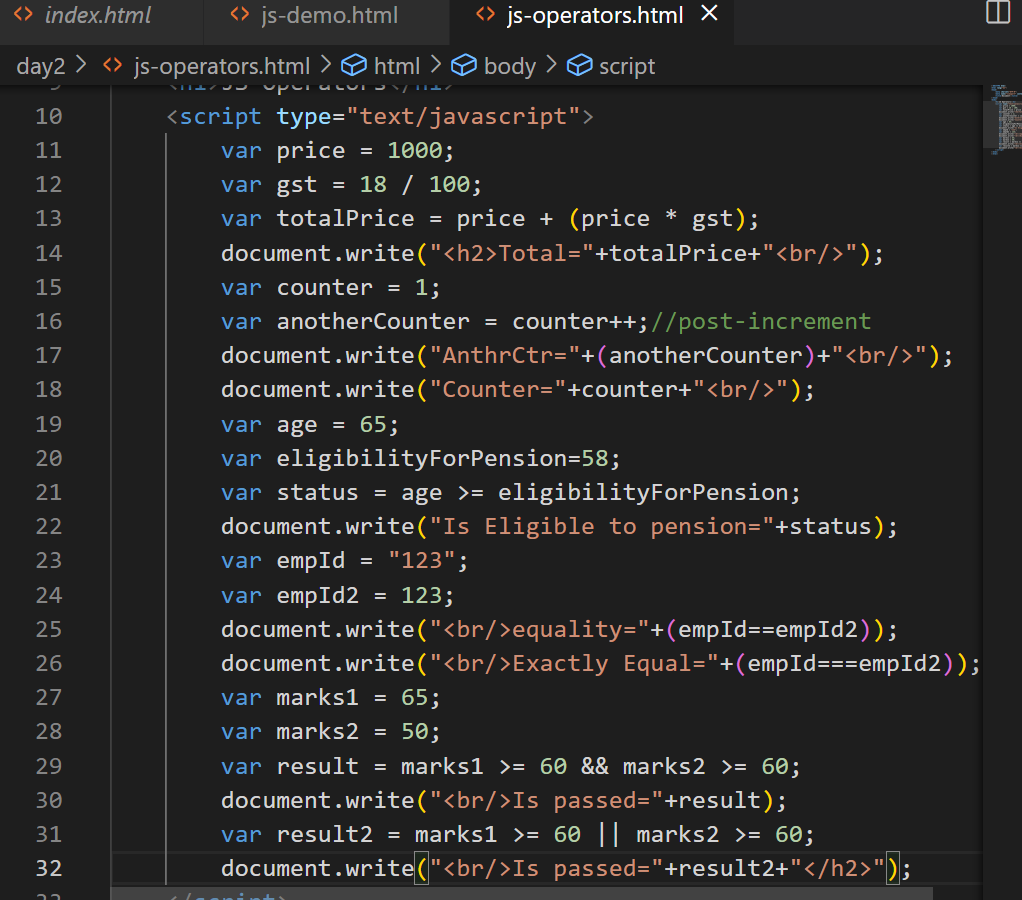
Assignment operator: =

Comparison operators: <, >, <=, >=, !=, ==, ===

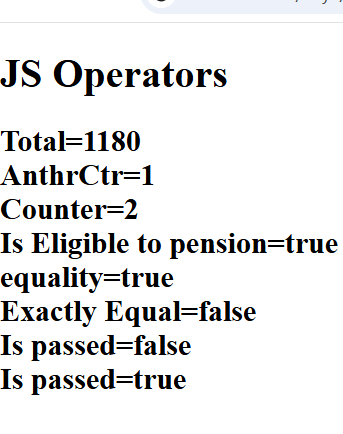
Increment & Decrement operators: ++, --

Logical operators: &&, ||

Operators Demo



Output:



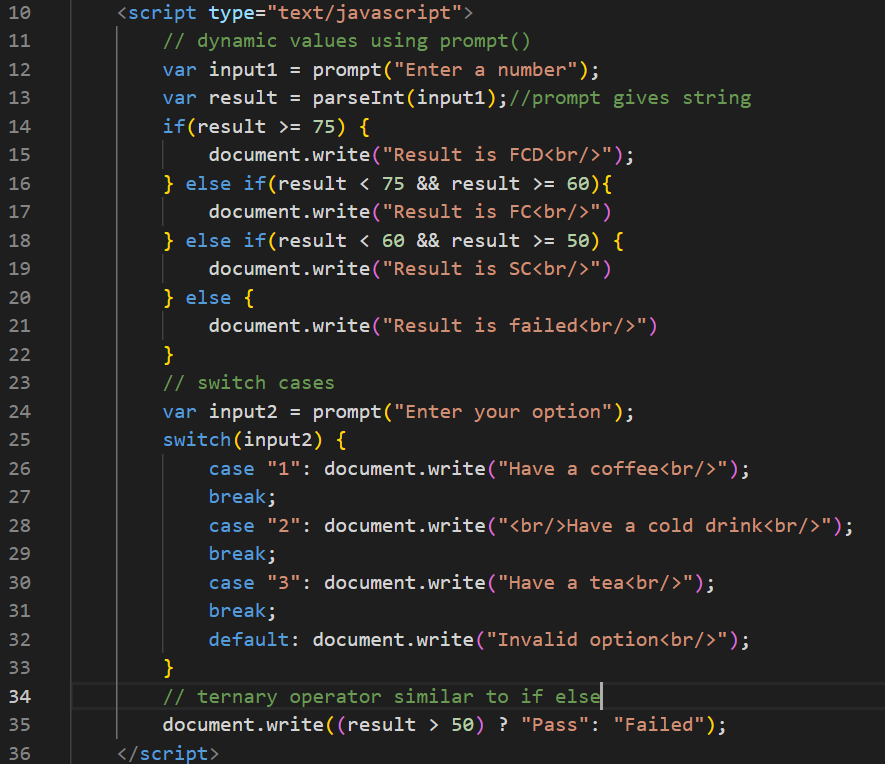
Conditional statements:

Statements that you want to execute only if its true or false

In Javascript we have following conditional statements

1. if
2. if else
3. if else if else if … else
4. switch

Conditional Statements demo



Output:

