

# INDCX

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- Install and configure and start using developer tools / Code editor / browser.

How to install Visual Studio Code on macOS ?

Follow the below steps \*(Shown in gif file and mentioned in bullet points)\* to install the VS Code on macOS :

1. Download Visual Studio Code for macOS.
2. After clicking on the Mac option on the download site, it will download a zip file, as shown below.
3. Double-click on the download zip to expand the contents. It will give a file, as shown below:
4. Drag "Visual Studio Code.app" to the "Applications" folder, so as it available in the "Launchpad."
5. Double click on the "Visual Studio Code" to open.
6. Add VS Code to your Dock by right-clicking on the icon to bring up the context menu and choosing Options => keep in Dock.

How to Install Visual Studio Code on windows ?

Firstly download Studio Code installer for windows.

- Once it is downloaded run the installer (VS Code User Setup - (version).exe). it will only take a minute.
- Secondly, accept the ~~agreement~~ and click on next.
  - Thirdly, click on "Create a desktop icon" so that it can be accessed from desktop and click on Next.
  - After that, click on the install button.

Finally, after installation completes, click on the finish button and the visual studio code will get open.

By default, VS Code installs under.

G:\User\{username}\AppData\Local\Programs\Microsoft VS Code.

After the successful installation, let's move to the next section to understand the various components of the User Interface of Visual Studio Code Editor.

What are the essential components of the Vs Code?

Visual Studio Code is a code editor at its core. Like many other code editors, Vs code adopts a standard user interface and layout of an explore on the left, showing all of the files and folders you have access to. Additionally, it an editor on the right, showing the content of the files you have opened. Below are a few of the most critical Components the Vscode editor.

Vs Code comes with a straight-forward and intuitive layout that maximizes the space provided for the editor while leaving ample room the to browse. Additionally it allows access to the full context of your folder or project. The UI is divided into five, as highlighted in the above image.

2. Editor - It is the main area to edit your files.  
You can open as many editors as possible side by side vertically and horizontally.
2. Side Bar - Contains different views like the Explorer to assist you while working on your project.
3. Status Bar - It contains the information about the opened project and the files you edit.
4. Activity Bar - It is located on the far left-hand side. It lets you switch between views and gives you additional context-specific indicators like the number of outgoing changes when Git is enabled.
5. Panels - It displays different panels below the editor for output or debug information, errors, warnings, or an integrated terminal. Additionally, the panel can also move to the right for vertical space.

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## Practical no: 02

• Creating web pages using different HTML tags

Follow the steps below to create your first web page with Notepad or TextEdit.

Step 1: Open Notepad (PC) Windows 8 or later. ---

Step 2: Open TextEdit (Mac) Open Finder > Applications >TextEdit.

Step 3: Write some HTML ---

Step 4: View the HTML Page in Your Browser?

Which HTML tags can be used to develop web pages?

Below are some of the frequently used tags used to build a web page from start to finish.

Document type - The document type declaration helps browsers to display your web page correctly.

HTML tag - As you may have guessed, this tag is written as: <html>.

Title tag ---

Body tag ---

Heading tag ---

Paragraph tag ---

List ---

Language tag ---

## HTML Registration form

Following are some different types of Forms:

Ques1: The following code describes how to create a simple registration page.

```
<html>
<head>
<title>
    Registration Page
</title>
</head>
<body style="background-color: lightblue">
<br>
<form>

    <label> First name: <input type="text" name="firstname" size="15" /><br><br>
    <label> Middle name: <input type="text" name="middlename" size="15" /><br><br>
    <label> Last name: <input type="text" name="lastname" size="15" /><br><br>
    <label> Course:<br>
    </label>
```

{Select}

<option value="course">Course </option>

<option value="BCA"> BCA </option>

<option value="BBA"> BBA </option>

<option value="B.Tech"> B.Tech </option>

<option value="MBA"> MBA </option>

<option value="MCA"> MCA </option>

<option value="M.Tech"> M.Tech </option>

</Select>

{6r}

{6r}

<label> • Gender:

<label> {6r}

<input type="radio" name="male"/> Male {6r}

<input type="radio" name="Female"/> Female {6r}

<input type="radio" name="Other"/> Other {6r} {6r}

• {label}

Phone

<label>

<input type="text" name="country code" value="91" /> {6r} {6r}

<input type="text" name="Phone" size="10" /> {6r} {6r}

Address

<br>

textarea cols="80" rows="5" value="address")  
(textarea). {6x} {6x}

Email:

input type="email" id="email" name="email"/> {6x}

{6x}{6x}. Password;

input type="password" id="Pass" name="Pass"/> {6x}

input type="password" id="repass" name="repass"/> {6x}

input type="button" value="Submit"/> {6x}{6x}

{body}

{HTML}

✓

## Practical no: 03

- Control the look and feel of web pages styling Using CSS.

CSS

CSS Stands for Cascading Style Sheets.

CSS saves a lot of work. It can control the layout of multiple web pages all at once

CSS = Style and Colors

Manipulate Text Colors Box

Xbox

What is CSS?

Cascading Style Sheets (CSS) is used to format the layout of a webpage.

With CSS you can control the color, font, the size of text, spacing between elements, how elements are positioned and laid out what background images or background colors are to be used, different display for different devices and screen sizes, and much more!

Tip: The word cascading means that a style applied to a parent element will also apply to all children elements within the parent.

So, if you set the color of the `body` text to "blue", all headings, paragraphs, and other `text` elements within the `body` will also get the same color unless you specify something else!

## Using CSS

- CSS can be added ~~to~~ HTML documents in 3 ways:
  - Inline - by using the `style` attribute inside HTML elements
  - Internal - by using a `<style>` element in the `<head>` section
  - External - by using a `<link>` element in link to an external CSS file.

The most common way to add CSS, is to keep the ~~less~~ style in external CSS files. However in this tutorial we will use inline and internal style because this is easier to demonstrate, and easier for you to try it yourself.

## Inline CSS-

An inline CSS is used to apply a unique style to a single HTML element.

An inline CSS uses the `style` attribute of an HTML elements.

The following example sets the `color` of the `h1` elements to blue, and the `text` color of

The `<P>` element is red:

Example

```
{h1 style = "color: blue;"} A Blue Heading {/h1}  
<p style = "color: red;"/> A Red Paragraph.{/p}
```

## Internal CSS

An internal CSS is used to define a style for a single HTML page.

An internal CSS is defined in the `<head>` section of an HTML page with a `<style>` element.

The following example sets the text color of all the `<h1>` elements (on that page) to blue, and the font color the `<p>` elements to red. In addition, the page will be displayed with a "powderblue" background color:

```
<!DOCTYPE html>  
<html>  
<head><style>  
body {background-color: powderblue;}  
h1 {color: blue;} p {color: red;}  
</style>  
</head>  
<body>  
<h1> This is a heading {/h1}<br/>  
<p> This is a paragraph {/p}</body>
```



## External CSS

An external style sheet is used to define the style for many HTML pages.

To use an external style sheet, add it in the `<head>` section of each HTML page:

```
<!DOCTYPE html>
<html>
  <head>
    <link rel="stylesheet" href="styles.css">
  </head>
  <body>
    <h1> This is a heading </h1>
    <p> This is a paragraph </p>
  </body>
</html>
```

The external style sheet can be written in any text editor. The file must not contain any extension. Here is what the "style.css" file looks like:

```
h1 { background-color: powderblue;
      color: red; }
```



Tip: With an internal style sheet, you can change the look of an entire web site, by changing one file!

## CSS Colors, Fonts and Sizes

Here, we will demonstrate some commonly used CSS properties. You will learn more about them later.

The CSS color property defines the font color to be used. The CSS font-family property defines the font to be used. The CSS font-size property defines the font size to be used.

### Example

Use of CSS Color, font-family and font-size property

```
<!DOCTYPE html>
<html>
  <head> <style> h1 {
    color: blue; font-family: Verdana;
    font-size: 30px; }

    p { color: red;
        font-size: 16pt; }

  </style>
  </head>
<body>
```

<h1> This is heading 1</h1>



```
{p} This is a paragraph.  
{body}  
{html}
```

## CSS Border

The CSS border property defines a border around an HTML element.

Tip: You can define a border for nearly all HTML elements

Example:

Use of CSS border property

```
p{  
border: 2px solid powderblue;  
}
```

## CSS padding

The CSS padding property defines a padding space between the text and the border.

Example:

Use CSS border and padding property

```
p{  
border: 2px solid powderblue;  
padding: 30px;  
}
```



## CSS margin

The CSS margin property defines a margin (space) outside the border.

Example

Use of CSS border and margin properties:

```
ps{  
border: 2px solid powder blue;  
margin: 50px;  
}
```

link to External CSS

External style sheets can be referenced with a full URL or with a path relative to the current web page.

Example.

This example uses a full URL to link to a style sheet.  
`<link rel="stylesheet" href="https://www.w3schools.com/html/styles.css">`

Try it yourself!

Example.

This example links to a style sheet located in the html folder on the current web site:  
`<link rel="stylesheet" href="html/styles.css">`

Try it yourself!

Example.



This example links to a style sheet located in the same folder as the current page:

```
Link rel = "stylesheet" href = "styles.css")
```

Try it yourself!}

You can read more about file in the Chapter HTML File Paths.

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## Practical no :- 04

• Write JavaScript functions and control the different components of web page by predefined JavaScript objects.

• What are JavaScript functions?

• A JavaScript function is a block of code that performs a certain task.

i.e., a block of code that performs a certain task is a group of reusable code that you can use anywhere in the code. It helps you to divide a large program into small and manageable functions. With the help of functions you don't need to write the same block of code repeatedly. This makes a program a lot more efficient and it reduces the code length.

• We used some functions like `prompt()` and `writeln()` in our previous Java Script Tutorials of this series. These are the built-in functions that Java Script provides and you will learn more about them later (in this tutorial). For now, let's move onto the definition of a Java Script function.

### Function Definition

• A Function definition (also called a function statement or a function declaration) includes of function keyword



With its syntax as follows:

```
* Function functionName (Parameters)
  {
    // Statements
    .
  }
```

- It is important to separate the parameters with commas.
- Return Statement
- This is an optional Java Script Statement that returns a value from the function. Unless specified otherwise a function returns undefined. We use the keyword return, followed by the statement on expression we want to return. This statement should be the last one in the block because it skips all code in the block written after that. We will make use of this statement in the section of Calling Functions

- The basic syntax of a return statement is as follows:  
return value;

#### Function Expressions

- The function declaration above is syntactically a Statement. We can also create a function using a function expression. These function can be anonymous, i.e., they don't any name. This is one of the features

We learned about in our article on Introduction to JavaScript. The syntax for these expressions is as follows:

\* Variable function parameters [11 expression]:

- Calling functions.

- A defined function doesn't execute automatically. A function definition only specifies what to do when we execute the function. The actual execution is possible with the help of function invocation or function call. Function must be in our code. This is because function declarations support hoisting, but function expressions don't.

- The syntax for function invocation is like this:  
functionsName (arguments);

- Like parameters, we separate arguments of a function call with the use of commas.
- We are now going to wrap up all we've learned so far in two JavaScript programs, one with function declaration and the other with function expression.
- Using function declaration:

```
<html>
<body>
<script>
```

- document.write ("Return Type "+ saySomething()); // calling function and returning type.
- function saySomething() { // function definition
 alert ("Hello Dafolain!");
 // Create an alert in browser
 g
}



## Practical no: 05

- Use jquery library to apply different features on web pages.

Different ways to include jquery in a webpage

- Last Updated : 12 Aug , 2021

In this article, we are going to learn different ways to include jquery on a page. Basically, we know that jquery comes with a lot of exciting features. So if we want to use those features, we just have to add the jquery library to our webpage.

- Include jquery from CDN (Content Delivery Network)
- Download the jquery library from official website.

1. Include jquery from CDN Link: ~~CDN Stands for Content Delivery Network which is basically as rest of servers used for storing and delivering uploaded to various CDNs and we can them directly on our web page . Then we don't need to download any script & `src = "http://js.cdn.googlesapis.com/cdnjs.cloudflare.com/ajax/libs/jquery/3.5.1/jquery.min.js"` (Script) We can see the CDN link inside the "src" attribute . We have successfully added jquery to our web page. we can use all function the features of jquery files~~



From the CDN link.

Example: In this example we will add jquery CDN link in execute jquery code.

HTML

<!DOCTYPE html>

<html>

<head>

<!--jquery library-->

<script src=

"https://cdn.jsdelivr.net/npm/jquery@3.6.0/dist/jquery.min.js">

</script>

</head>

<body>

<p></p>

<script>

\$(document).text('Hello geeks.CDN working');

</script>

</body>

</html>

Hello geeks CDN Working

2. Download the jquery library: In this way, we will add jquery library to our page first, we will download the jquery library files to our localhost from the jquery website. After downloading, we will add the downloaded



files do our web page in this manner:

```
<script src = "file-name-with-full-path"></script>
```

Example 2: In this example, we will add jquery link from downloaded path to execute jquery code.

HTML

```
<!DOCTYPE html>
<html>
<head>
<!--jquery library-->
<script src = "jquery - 3.6.0. js"></script>
</head>
<body>
<p>Hello</p>
</body>
</html>
```

```
$('p').text('Hello geeks. Downloaded files');
</script>
</body>
</html>
```

Output:

Hello geeks. Downloaded files



## Practical no:- 06

- Use Bootstrap library and icons to develop a responsive websites.

### Bootstrap.

Bootstrap is a complete HTML, CSS and JavaScript framework to create a creating responsive website. Bootstrap, bootstrap emphasises to first creates the website for mobile devices and enhancing and enriching the website render it on other ~~large~~ devices as well.

### Visual Breakpoints

Bootstrap categories different devices in 4 categories on the basis of devices width such as extra small devices, small devices, medium devices and large devices. Bootstrap provides different notation based on these categories and defines CSS classes on the basis of that.

Name	Symbol	View port range	Example
Extra Small	Ex	<768px	Mobile devices
Small	Sm	>=768px and <992px	Smart phones and tablet devices
Medium	Md	>=992px and <1200px	Laptops
Large	lg	>=1200px	Large desktop devices



- All the devices having width < 768px fall in the category of extra small devices such as mobile devices.

Bootstrap provide "xs" to represent these devices.

- All the devices having width  $\lambda = 768px$  and  $\lambda \geq 992px$  are fall in the category of small devices such as tablet devices.
- Bootstrap provide "sm" to represent these devices
- All the devices having width  $\lambda = 992px$  and  $\lambda \geq 1200px$  are fall in the category of medium devices such as laptop devices. Bootstrap provide "md" to represent these devices.
- All the devices having width  $\lambda = 1200px$  are fall in the category of large devices such as large desktop devices. Bootstrap provide "lg" symbol to represent these devices.

## 12 Column Grid Layout Structure

Bootstrap provides 12 column grid layout structure to make the layout responsive. Bootstrap devices Specified with the class represents the element having that class will take the specified number of column space of total 12 column.

Example: If we define a class 'col-sm-6' on the `<div>` element then this means that this `div` element will take the 6 column space of total 12 column on small

Medium and large devices and complete 12 column on  
Extra small devices.

### Add Bootstrap in Project

Create a new website using Visual Studio. If you do not have visual studio then you can choose any editor of your choice.

Install the ~~Bootstrap~~ NuGet package from NuGet Package manager. In case are using the different IDE then download compiled version of bootstrap from <http://getbootstrap.com/getting-started/#download> by clicking download bootstrap button.

The website will contain the following folders after successful installation.



1. Content - include the bootstrap.css
2. Scripts - include the bootstrap.js and jquery.js query is installed because bootstrap has dependency on jquery library.

### 3. Fonts

Creating Basic Layout.

Add an HTML Page ~~Home.html~~ and add the below code.

Add reference of bootstrap.css on the head on the page.

Add reference of bootstrap.css on the head on the page.

Add reference of jquery-1.9.1.js and bootstrap.js at bottom of the body tag we generally load script at bottom of the page to improve the page time as we want HTML and CSS to load first.

Shrink △ Copy Code

```
<!DOCTYPE html>
<html>
<head>
<title> Home </title>
<meta charset = "utf-8" />
<meta name = "viewport" content = "width=device-width,
initial-scale=1, maximum-scale=1, user-scalable=no" />
<link href = "Content/site.css" rel = "stylesheet" />
</head>
<body>
<header class = "Container">
```



```
</header>
<Section class = "Container">
  <div class = "Row">
    <div class = "Col-md-3 leftnav">
      Left Navigation
    </div>
    <div class = "Col-md-6 Content">
      Content Area
    </div>
    <div class = "Col-md-3 rightContent">
      Right Content
    </div>
  </Section>
</body>
</html>
```