



# **HTML**

# **Hypertext Markup**

# **Language**

---

**Class # 2**

# Forms in HTML

An HTML form is used to collect user input. The user input is most often sent to a server for processing.

`<form> </form>` element is used to create an HTML form.

Form element contains different types of input types.

# Input types in form

There are different input types in form of html.

<code>&lt;input type="text"&gt;</code>	Displays a single-line text input field
<code>&lt;input type="radio"&gt;</code>	Displays a radio button (for selecting one of many choices)
<code>&lt;input type="checkbox"&gt;</code>	Displays a checkbox (for selecting zero or more of many choices)
<code>&lt;input type="submit"&gt;</code>	Displays a submit button (for submitting the form)
<code>&lt;input type="button"&gt;</code>	Displays a clickable button
<code>&lt;input type="password"&gt;</code>	To Hide password and show dots
<code>&lt;input type="textarea"&gt;</code>	Display multiple-line text input field

# Input types in form

There are also some other input fields like

`<input type="button">`

`<input type="checkbox">`

`<input type="color">`

`<input type="date">`

`<input type="datetime-local">`

`<input type="email">`

`<input type="file">`

`<input type="hidden">`

`<input type="image">`

`<input type="month">`

`<input type="number">`

# Input types in form

There are also some other input fields like

`<input type="password">`

`<input type="radio">`

`<input type="range">`

`<input type="reset">`

`<input type="search">`

`<input type="submit">`

`<input type="tel">`

`<input type="text">`

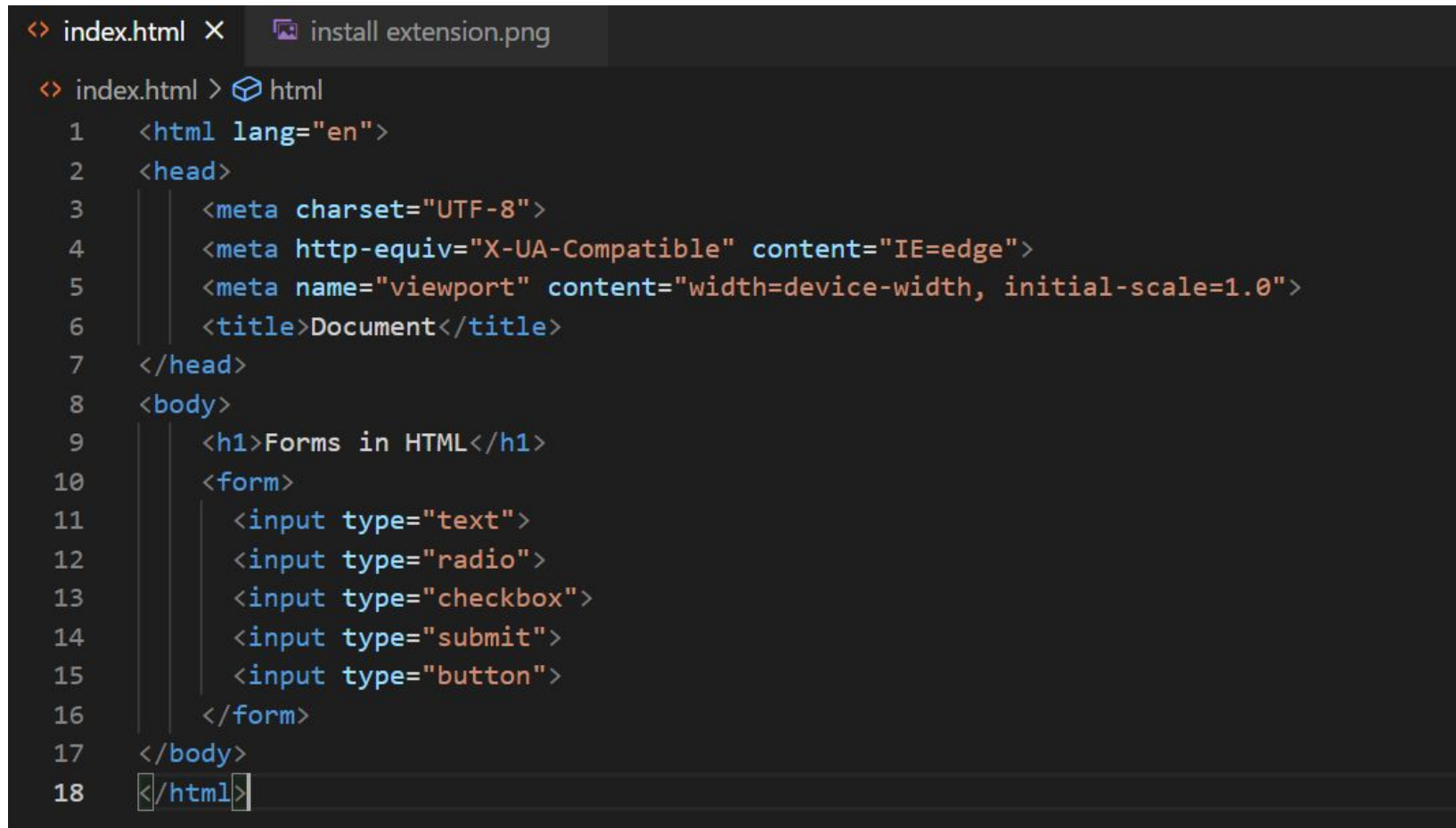
`<input type="time">`

`<input type="url">`

`<input type="week">`

# Forms in HTML

Here is the Code snippet of Form

A screenshot of a code editor with a dark theme. The editor has two tabs at the top: 'index.html' (active) and 'install extension.png'. The code is written in HTML and is color-coded. It includes a head section with meta tags for charset, compatibility, and viewport, and a title 'Document'. The body section contains an h1 heading 'Forms in HTML' and a form containing five input elements: text, radio, checkbox, submit, and button. Line numbers 1 through 18 are visible on the left side of the code block.

```
<> index.html X install extension.png
<> index.html > html
1  <html lang="en">
2  <head>
3      <meta charset="UTF-8">
4      <meta http-equiv="X-UA-Compatible" content="IE=edge">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Document</title>
7  </head>
8  <body>
9      <h1>Forms in HTML</h1>
10     <form>
11         <input type="text">
12         <input type="radio">
13         <input type="checkbox">
14         <input type="submit">
15         <input type="button">
16     </form>
17 </body>
18 </html>
```

# Labels in Form

The `<label>` element is useful for screen-reader users, because the screen-reader will read out loud the label when the user focuses on the input element.

Syntax for label is `<label form="label name">HTML</label>`

`<br>` tag is used to break down the line and goes to the next line.

# Complete form

Here is the code snippet for complete form

```
<> index.html X install extension.png
<> index.html > html > body > form > br
1  <html lang="en">
2  <head>
3    <meta charset="UTF-8">
4    <meta http-equiv="X-UA-Compatible" content="IE=edge">
5    <meta name="viewport" content="width=device-width, initial-scale=1.0">
6    <title>Document</title>
7  </head>
8  <body>
9    <h1>Forms in HTML</h1>
10   <form>
11     <label for="html">Name</label>
12     <input type="text"><br>
13     <label for="password">password</label>
14     <input type="password"><br>
15     <label for="password">confirm password</label>
16     <input type="password"><br>
17   </form>
18 </body>
19 </html>
```



# Complete form

Here is the output of previous code



## Forms in HTML

Name

password

confirm password

# Terms in Form

There are some terms used in input fields of form these are

**Id:** Id is used to get the value of any field and each input field has unique id.

```
<input type="text" id="name">
```

**name:** name is used to get the value of the input field at the backend server for post request. We will later studied about post request.

```
<input type="text" id="name" name="name">
```

**Placeholder:** Placeholder is used in input field to show a place holder text in the input field like we show **Enter your Name** in input field.

```
<input type="text" id="name" name="name" placeholder="Your Name*">
```

# Terms in Form

There are some terms used in input fields of form these are

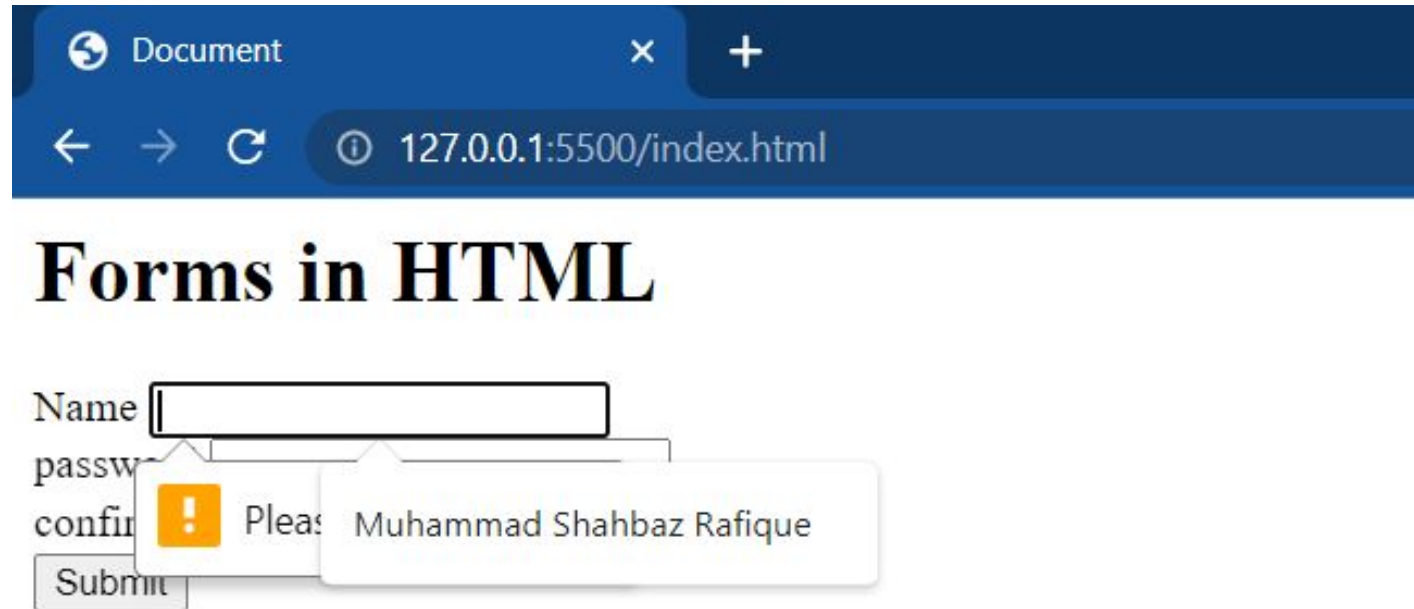
**required:** Required is used in input field to make sure that user fill this fields before submitting the form.

```
<input type="text" id="name" name="name" placeholder="Your Name*"
required>
```

Here is the code snippet for previous slide

```
<> index.html X  install extension.png
<> index.html > html > body > form > input
1  <html lang="en">
2  <head>
3      <meta charset="UTF-8">
4      <meta http-equiv="X-UA-Compatible" content="IE=edge">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Document</title>
7  </head>
8  <body>
9      <h1>Forms in HTML</h1>
10 <form>
11     <label for="html">Name</label>
12     <input type="text" name="name" id="name" required><br>
13     <label for="password">password</label>
14     <input type="password" name="password" id="password" required><br>
15     <label for="password">confirm password</label>
16     <input type="password" name="confirm" id="confirm" required><br>
17     <input type="submit">
18 </form>
19 </body>
20 </html>
```

If used want to submit the form without filling required field form give warning like



The screenshot shows a web browser window with a single tab titled 'Document'. The address bar displays '127.0.0.1:5500/index.html'. Below the browser window, the page content features the heading 'Forms in HTML' in a large, bold, black serif font. Underneath the heading, there is a form with three input fields: 'Name', 'password', and 'confirm'. The 'Name' field is currently empty and has a black border. The 'password' and 'confirm' fields are partially visible. A warning message is displayed over the form, consisting of a yellow square icon with a black exclamation mark, followed by the text 'Please' and a text box containing the name 'Muhammad Shahbaz Rafique'. At the bottom left of the form, there is a 'Submit' button.

# HTML Formatting

There are different html formatting element like

**<b>** - Bold text e.g **Bold Text**

**<strong>** - Important text e.g this is **important!**

**<i>** - Italic text e.g *Hello*

**<em>** - Emphasized text e.g *text is emphasized.*

**<mark>** - Marked text

**<small>** - Smaller text e.g small text

**<del>** - Deleted text e.g ~~delete text~~

**<ins>** - Inserted text e.g insert text

**<sub>** - Subscript text e.g This is <sub>subscripted</sub>

**<sup>** - Superscript text

**<center>** - To center the text

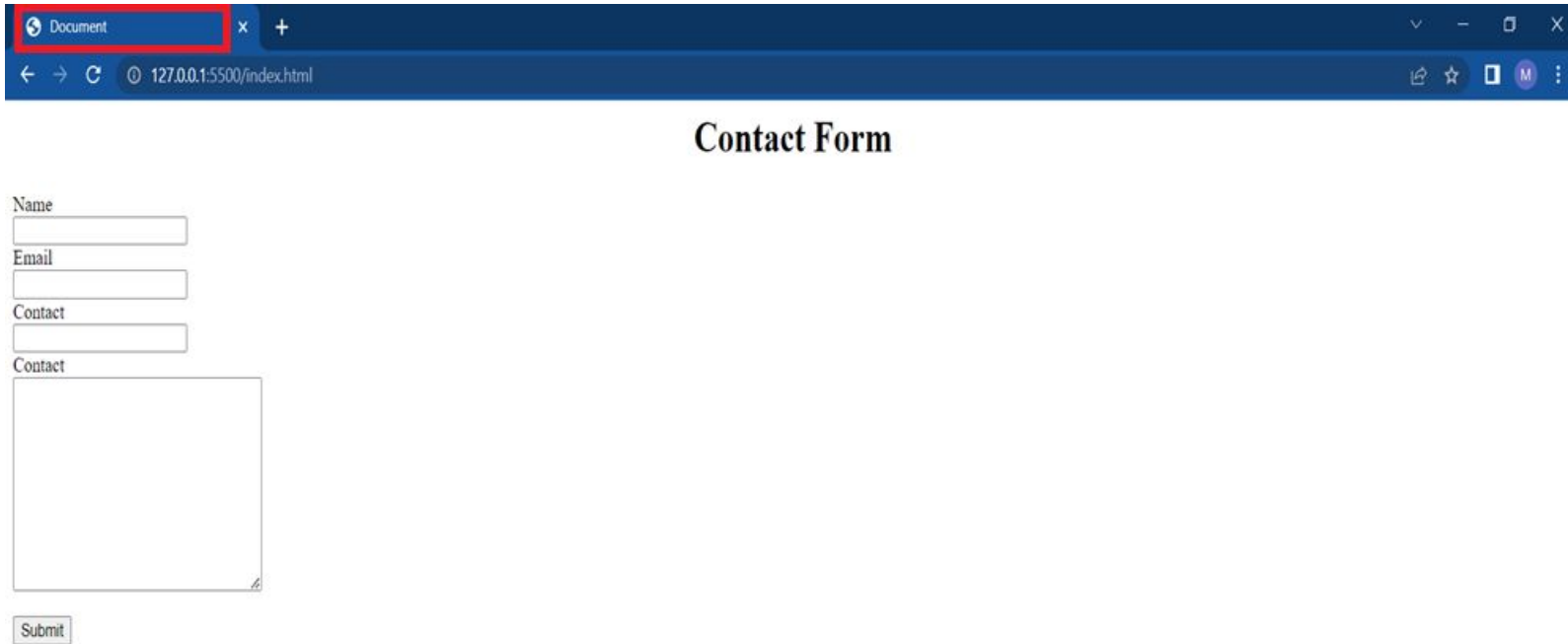
# Favicon

How to Change this text and logo?

This is called Favicon. To change this logo we used syntax

```
<link rel="icon" type="image/x-icon" href="/images/favicon.ico">
```

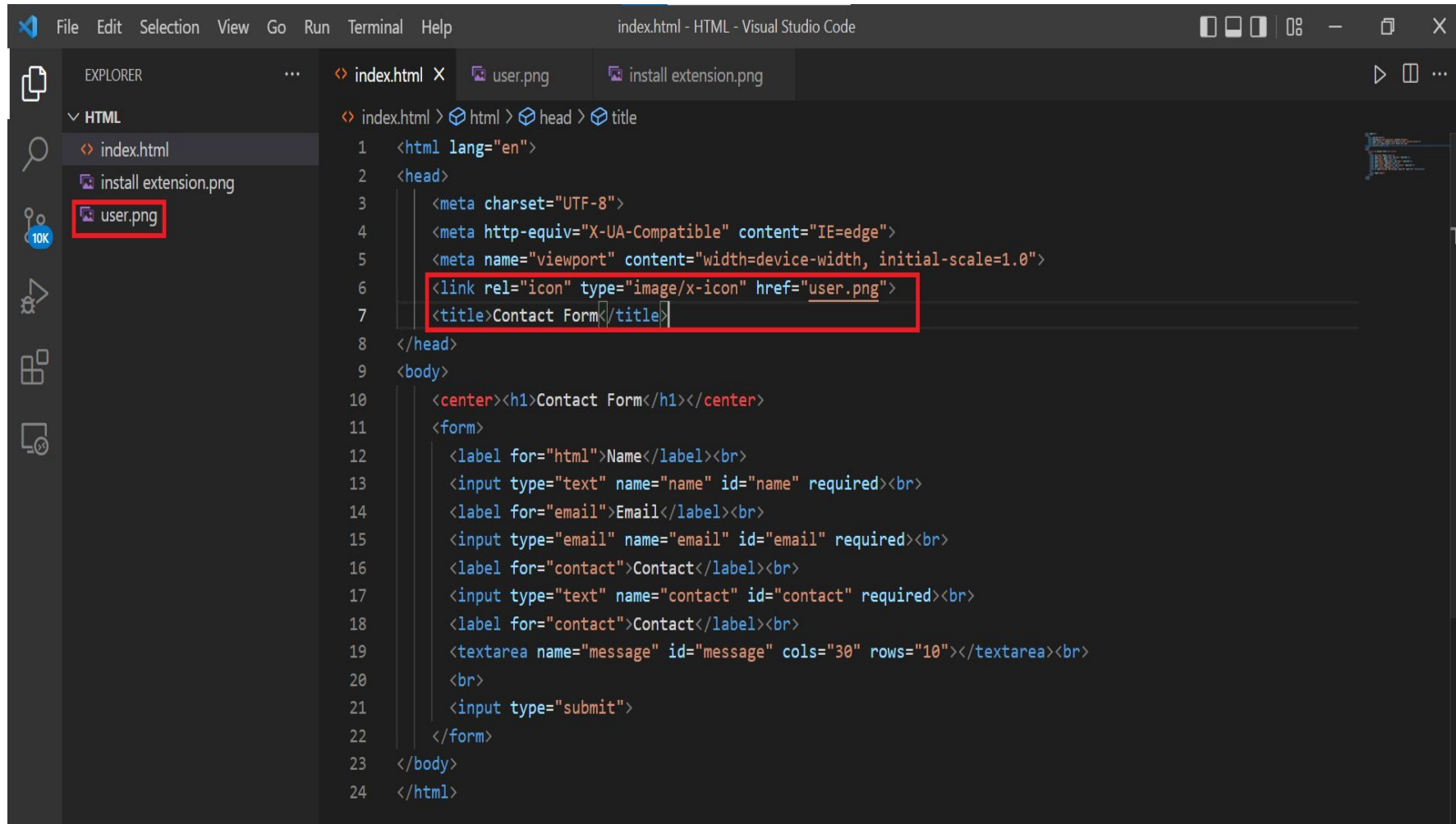
Here change href="your image path" and name of page is changed by changing title in HTML file



The screenshot shows a web browser window with a single tab titled "Document". The address bar displays the URL "127.0.0.1:5500/index.html". The page content features a heading "Contact Form" centered at the top. Below the heading, there is a form with four input fields: "Name", "Email", "Contact", and "Contact". The first three fields are small text boxes, while the fourth is a larger text area. A "Submit" button is located at the bottom left of the form.

# Favicon

Here is the code snippet to change page name and favicon

A screenshot of the Visual Studio Code editor interface. The Explorer sidebar on the left shows a project named 'HTML' with files 'index.html', 'install extension.png', and 'user.png'. The 'user.png' file is highlighted with a red rectangle. The main editor area displays the 'index.html' file. The code is as follows:

```
1 <html lang="en">
2 <head>
3   <meta charset="UTF-8">
4   <meta http-equiv="X-UA-Compatible" content="IE=edge">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <link rel="icon" type="image/x-icon" href="user.png">
7   <title>Contact Form</title>
8 </head>
9 <body>
10   <center><h1>Contact Form</h1></center>
11   <form>
12     <label for="html">Name</label><br>
13     <input type="text" name="name" id="name" required><br>
14     <label for="email">Email</label><br>
15     <input type="email" name="email" id="email" required><br>
16     <label for="contact">Contact</label><br>
17     <input type="text" name="contact" id="contact" required><br>
18     <label for="contact">Contact</label><br>
19     <textarea name="message" id="message" cols="30" rows="10"></textarea><br>
20     <br>
21     <input type="submit">
22   </form>
23 </body>
24 </html>
```

The lines 6 and 7, which define the favicon and the page title, are highlighted with a red rectangle.



# Favicon

Here is the output of previous code



## Contact Form

Name

Email

Contact

Contact

# HTML Styles

Style Sheet is used to make html looking good. We can either write stylesheet code in html file or either make css file and import it in html file. Here we just learn how to declare style and we learn Complete css in CSS portion.

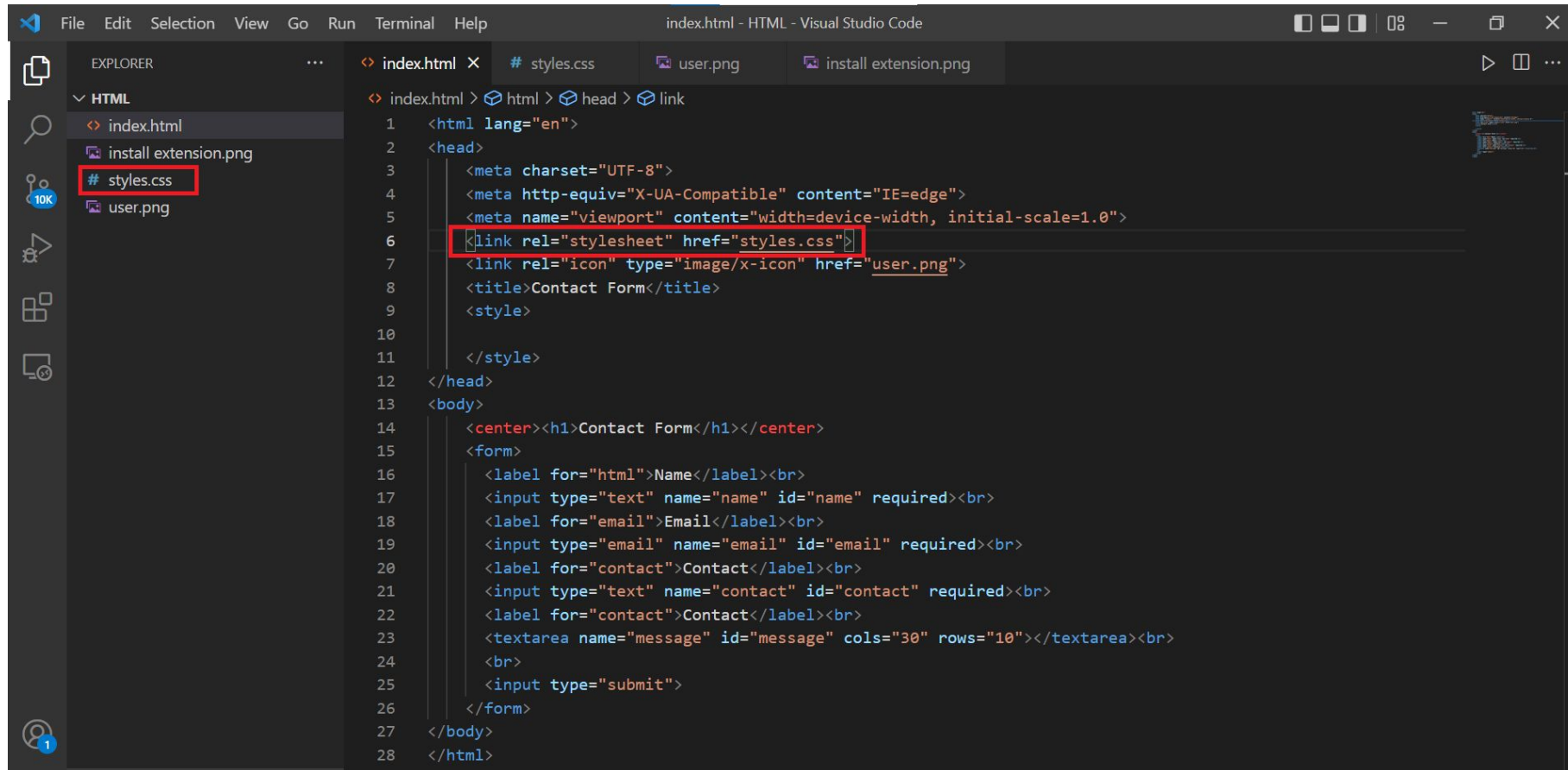
In Html page we declare style as

```
<> index.html > html > head > style
1  <html lang="en">
2  <head>
3      <meta charset="UTF-8">
4      <meta http-equiv="X-UA-Compatible" content="IE=edge">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <link rel="icon" type="image/x-icon" href="user.png">
7      <title>Contact Form</title>
8      <style>
9
10     </style>
11 </head>
12 <body>
13     <center><h1>Contact Form</h1></center>
14     <form>
15         <label for="html">Name</label><br>
16         <input type="text" name="name" id="name" required><br>
17         <label for="email">Email</label><br>
18         <input type="email" name="email" id="email" required><br>
19         <label for="contact">Contact</label><br>
20         <input type="text" name="contact" id="contact" required><br>
21         <label for="contact">Contact</label><br>
22         <textarea name="message" id="message" cols="30" rows="10"></textarea><br>
23         <br>
24         <input type="submit">
25     </form>
26 </body>
27 </html>
```

# HTML Styles

Importing style from CSS file. Make .css file and import it in html by using this

`<link rel="stylesheet" href="filename.css">`



# Div tag

In HTML, the <div> tag is a container element used to group other HTML elements together and apply styles or manipulate them as a unit. The "div" stands for "division" and is a commonly used generic container. Like

```
<div>
```

```
<-- Your content -->
```

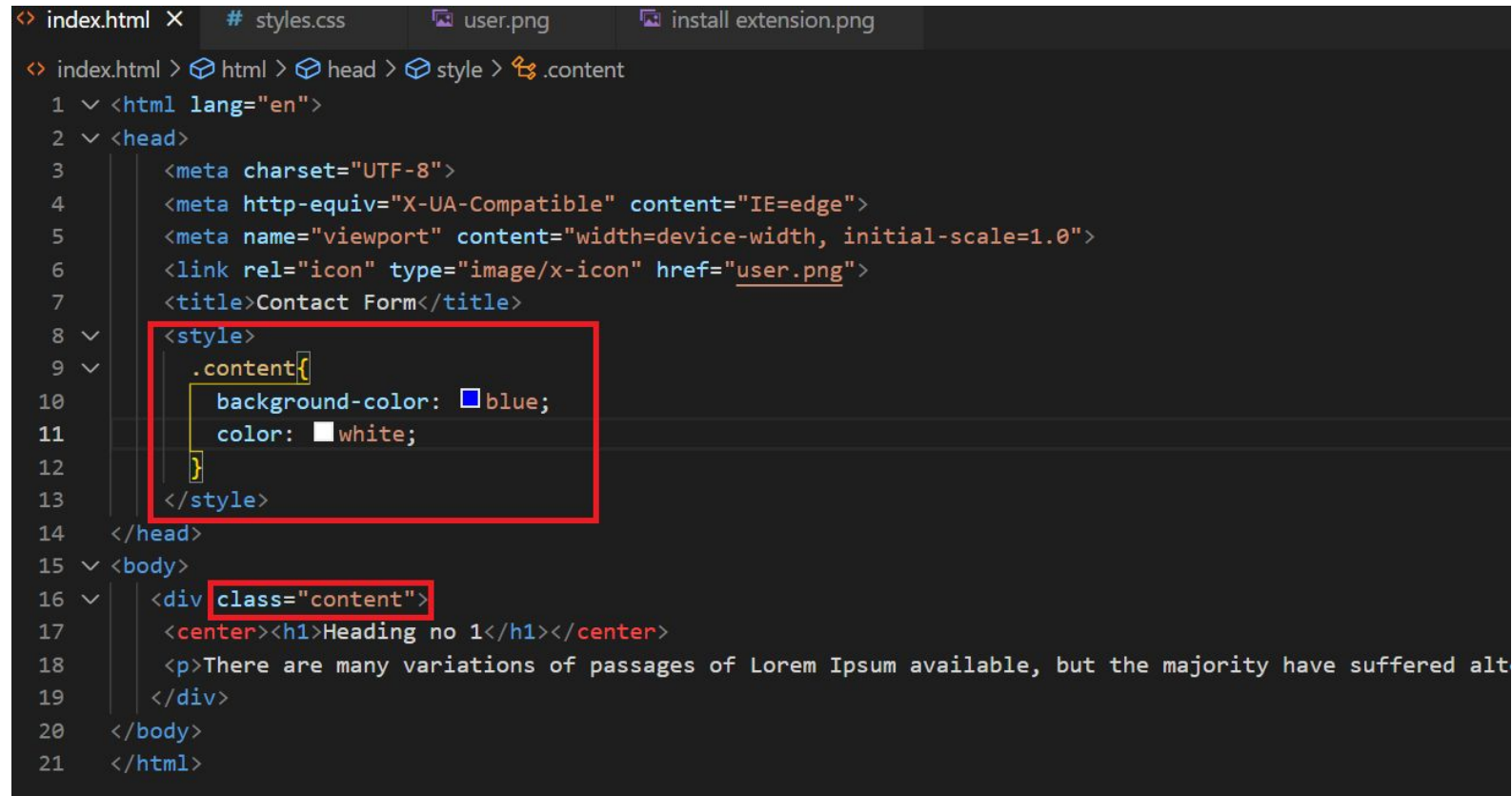
```
</div>
```

By default, a <div> element doesn't have any inherent styles or behaviors. Its purpose is to provide structure and organization to your HTML code. You can apply styles to a <div> using CSS or target it with JavaScript to manipulate its content or behavior.

We can do this by assign classname or id to div tag.

# HTML Classes

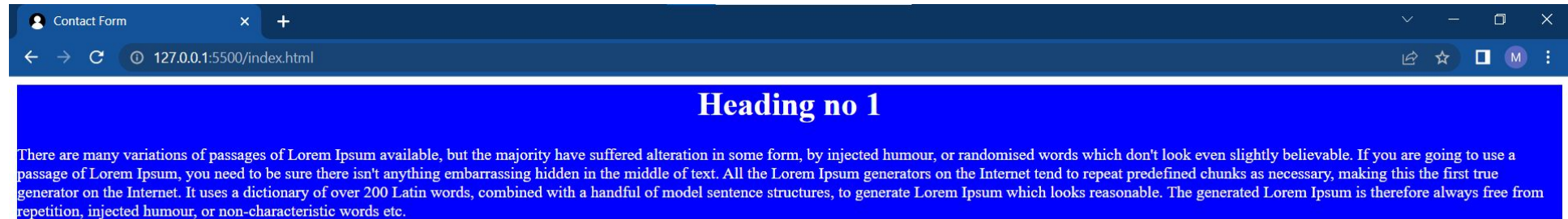
The class attribute is often used to point to a class name in a style sheet. It can also be used by a JavaScript to access and manipulate elements with the specific class name like



```
< index.html X # styles.css user.png install extension.png
< index.html > html > head > style > .content
1 <html lang="en">
2 <head>
3   <meta charset="UTF-8">
4   <meta http-equiv="X-UA-Compatible" content="IE=edge">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <link rel="icon" type="image/x-icon" href="user.png">
7   <title>Contact Form</title>
8   <style>
9     .content{
10       background-color: blue;
11       color: white;
12     }
13   </style>
14 </head>
15 <body>
16   <div class="content">
17     <center><h1>Heading no 1</h1></center>
18     <p>There are many variations of passages of Lorem Ipsum available, but the majority have suffered alt
19   </div>
20 </body>
21 </html>
```

# HTML Classes

Here is the output of previous code snippet



# HTML Id

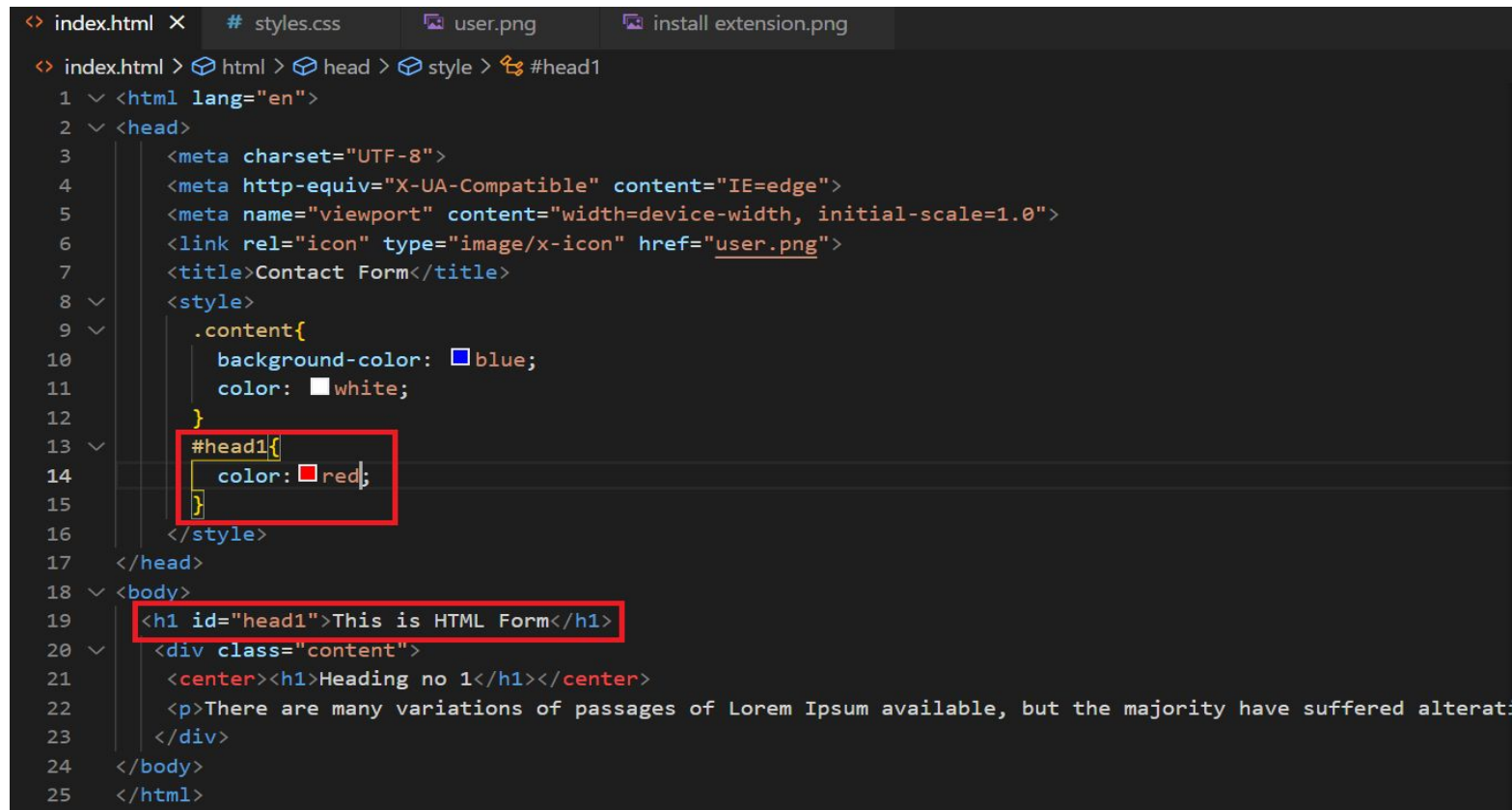
The id attribute specifies a unique id for an HTML element. The value of the id attribute must be unique within the HTML document.

The id attribute is used to point to a specific style declaration in a style sheet. It is also used by JavaScript to access and manipulate the element with the specific id.

A class name can be used by multiple HTML elements, while an id name must only be used by one HTML element within the page. We will see example in next slide

# HTML Id

Lets we declare Id of one heading element and change its style thorough its id. For class Style we use . (dot) with classname like .content here and for id we use # (hash).

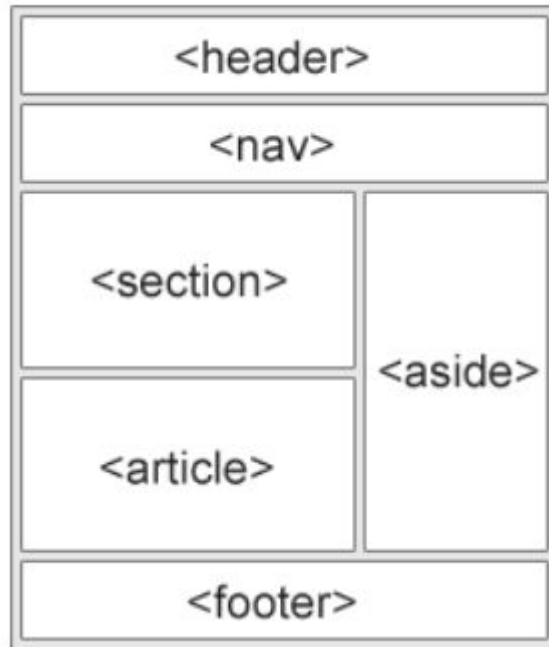


```
<? index.html X # styles.css user.png install extension.png
<? index.html > html > head > style > #head1
1 <html lang="en">
2 <head>
3   <meta charset="UTF-8">
4   <meta http-equiv="X-UA-Compatible" content="IE=edge">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <link rel="icon" type="image/x-icon" href="user.png">
7   <title>Contact Form</title>
8   <style>
9     .content{
10       background-color: blue;
11       color: white;
12     }
13     #head1{
14       color: red;
15     }
16   </style>
17 </head>
18 <body>
19   <h1 id="head1">This is HTML Form</h1>
20   <div class="content">
21     <center><h1>Heading no 1</h1></center>
22     <p>There are many variations of passages of Lorem Ipsum available, but the majority have suffered alterati
23   </div>
24 </body>
25 </html>
```



# HTML Layouts

HTML has several semantic elements that define the different parts of a web page



**`<header>`** - Defines a header for a document or a section

**`<nav>`** - Defines a set of navigation links

**`<section>`** - Defines a section in a document

**`<article>`** - Defines an independent, self-contained content

**`<aside>`** - Defines content aside from the content (like a sidebar)

**`<footer>`** - Defines a footer for a document or a section

**`<details>`** - Defines additional details that the user can open and close on demand

**`<summary>`** - Defines a heading for the `<details>` element

We will studied these layout with CSS portion in details.

# Class # 2 Task

Create an HTML page for University students registration

- There is University name at the top in center with white color and blue background and also place university logo at top of heading.
- Then there is a registration form containing following details

1. Student Name
2. Father Name
3. CNIC
4. Contact Number
5. FSC Marks
6. Entry Test Marks
7. Gender
8. Student Remarks
9. Student preferencfes

At the last there is a submit button. The background color of th form is also blue and text color will be white.