

Summer Internship Report

FULL STACK WEB DEVELOPMENT INTERNSHIP DAILY ANALYSIS REPORT

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DECLARATION

I undersigned hereby declare that the project daily analysis report of "FULL STACK WEB DEVELOPMENT" submitted, is a bonafide work done by me under supervision of Mr. Albert Suny, Asst. Professor. This submission represents my ideas in my own words or words of others have been included; I have adequately and accurately cited and referenced the original sources. I also declare that I have adhered to ethics of academic honesty and integrity and have not misrepresented or fabricated any data or idea or fact or source in my submission. I understand that any violation of the above will be a cause for disciplinary action by the Mentor and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been obtained.

Place: Palakkad
Date: 1/4/2020

AMALA PETER

ABSTRACT

This project aimed at implementing a full stack web development using Technologies like HTML,CSS,JavaScript,Mongodb,Node.js.Full stack development refers to the development of both front end(client side) and back end(server side) portions of web application.

Front End Development : involves the actual presentation of your website, how the information in your website is laid out in browsers and on mobile devices as well.It is done by languages like HTML,CSS as well as scripting Language,Javascript.The main goal of a front end is to provide the platform for visitors to interact with, a platform which provides and receives information. It deals with everything that we actually see on a website, the layout, the positioning of text and images, colors, fonts, buttons, and so on.

Back End Development :Creation, edit/update and recollection of data are some of the processes that are most often associated with back-end development. Some examples of common scripting languages used are PHP, Ruby, and Python.We need to write code to receive the information input from the user and also save it in a database. There are two main types of databases: relational (like PostgreSQL and MySQL) and non-relational management systems (like Mongo). The language used for database management is SQL, which helps the developer interact with the database.Another component of back-end development is server management, which are applications that host the database and serve up the website.

Full Stack Development :In this phase we need to get focused on front-end, back-end, frameworks, as well as server, network and hosting environments. So the full stack of development.

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Chapter 1 :

FRONT END DEVELOPMENT

Front end development manages everything that users visually see first in their browser or application. Front end development is mostly focused on the "client side" of development. Front end developers will be engaged in analyzing code, design, and debugging applications along with ensuring a seamless user experience. They manage what people first see in their browser and are responsible for the look, feel and ultimately design of the site. Sites created by front end developers won't interact with information stored on a database in order to be functional. The content will be "fixed," meaning that large pieces of new data will not be constantly uploaded. Small business owners and restaurants usually have great examples of static sites.

FRONT END PROGRAMMING LANGUAGES:-

Front end languages include HTML, CSS, and Javascript.

HTML

HTML is the fundamental coding language that creates and organizes web content so it can be displayed by a browser. It is not a programming Language, It's a Markup Language.

CSS

CSS is a language that accompanies HTML, and defines the style of a website's content, such as layout, colors, fonts, etc.

JavaScript

JavaScript is a programming language used for more interactive elements like drop down menus, modal windows, and contact forms. Together these essentials create everything that's visually presented when you visit a webpage.

In addition to basic front-end languages, there are several frameworks like Bootstrap and Angular, as well as JavaScript libraries like jQuery, and CSS extensions like Sass and LESS, all supporting HTML, CSS, and JavaScript. Their purpose is simply to make code (and the process of writing it) more manageable and organized by providing various tools and templates compatible with common coding languages.

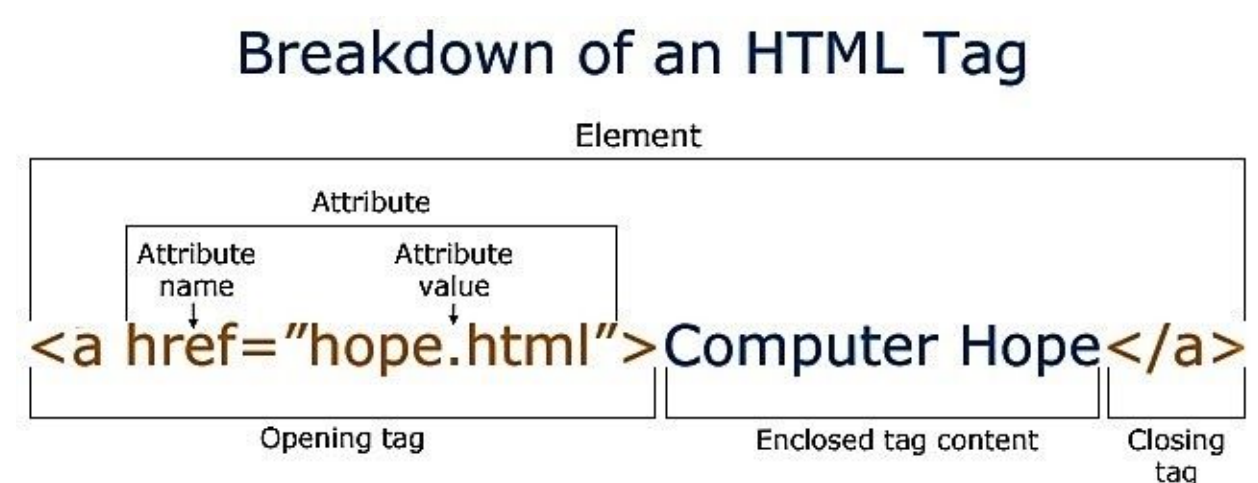
1.1 HTML

1.1.1 INTRODUCTION

First developed by Tim Berners-Lee in 1990, HTML is short for Hypertext Markup Language. HTML is used to create electronic documents (called pages) that are displayed on the World Wide Web. Each page contains a series of connections to other pages called hyperlinks. Every web page that is seen on the Internet is written using one version of HTML code or another

.HTML code ensures the proper formatting of text and images for your Internet browser. Without HTML, a browser would not know how to display text as elements or load images or other elements. HTML also provides a basic structure of the page, upon which Cascading Style Sheets are overlaid to change its appearance. One could think of HTML as the bones (structure) of a web page, and CSS as its skin (appearance).

1.1.2 HTML Tag



HTML tags normally come in pairs like `<p>` and `</p>`. The first tag in a pair is the start tag, the second tag is the end tag. The end tag is written like the start tag, but with a forward slash inserted before the tag name. Most tags are contained in a less than and greater than angle brackets, and everything between the open and close tag is displayed or affected by the tag. In the example above, the `<a>` tag is creating a link called "Computer Hope" that is pointing to the `hope.html` file.

1.1.3 HTML page structure

```
<!DOCTYPE html>

<html>

<head>

<title>Page Title</title>

</head>

<body>

<h1>My First Heading</h1>

<p>My first paragraph.</p>

</body>

</html>
```

Program Explained:-

- The `<!DOCTYPE html>` declaration defines this document to be HTML5
- The `<html>` element is the root element of an HTML page
- The `<head>` element contains meta information about the document
- The `<title>` element specifies a title for the document
- The `<body>` element contains the visible page content
- The `<h1>` element defines a large heading
- The `<p>` element defines a paragraph

1.1.4 Create and View HTML

Because HTML is a markup language, it can be created and viewed in any text editor as long as it's saved with a .htm or .html file extension. It is easier to design and create web pages in HTML using an HTML editor.

Once the HTML file is created, it can be viewed locally or uploaded to a web server to be viewed online using a browser.

1.1.5 HTML File Extensions

HTML files use either the .htm or .html file extension. Older versions of Windows (Windows 3.x) only allow three-letter file extensions, so they used .htm instead of .html. However, both file extensions have the same meaning, and either may be used today. That being said, we recommend sticking to one naming convention as certain web servers may prefer one extension over the other.

1.1.6 Advantages:

- HTML is used to build websites.
- It is supported by all browsers.
- It can be integrated with other languages like CSS, JavaScript etc.

1.1.7 Disadvantages:

- HTML can create only static web pages so for dynamic web pages other languages have to be used.
- Large amount of code has to be written to create a simple web page.
- Security feature is not good.

1.2 CSS

1.2.1 Introduction

Cascading Style Sheets, fondly referred to as **CSS**, is a simply designed language intended to simplify the process of making web pages presentable. CSS allows you to apply styles to web pages. More importantly, CSS enables this independent of the HTML that makes up each web page.

CSS is easy to learn and understood but it provides powerful control over the presentation of an HTML document.

1.2.2 CSS Selectors

CSS selectors are used to “find” (or select) HTML elements based on their element name, id, class, attribute, and more.

1.2.2.1 Universal Selectors

Rather than selecting elements of a specific type, the universal selector quite simply matches the name of any element type.

```
*{
    Color: #000000;
}
/* This rule renders the content of every element in our document in black.*\
```

1.2.2.2 Element Selectors

The element selector selects elements based on the element name. You can select all p elements on a page like this

```
p {
    text-align: center;
    color: red;
}
/*all p elements will be center-aligned, with a red text color*\
```

1.2.2.3 The Descent Selector

Used when you want to apply a style rule to a particular element only when it lies inside a particular element.

```
ul em {
    color: #000000;
}
```

1.2.2.4 The ID selector

The id selector uses the id attribute of an HTML element to select a specific element. The id of an element should be unique within a page, so the id selector is used to select one unique element! To select an element with a specific id, write a hash (#) character, followed by the id of the element. The style rule below will be applied to the HTML element with id="para1":

```
#para1 {
    text-align: center;
    color: red;
}
```

1.2.2.5 The Class Selector

The class selector selects elements with a specific class attribute. To select elements with a specific class, write a period (.) character, followed by the name of the class. In the example below, all HTML elements with class="center" will be red and center-aligned:

```
.center {
    text-align: center;
    color: red;
}
```

1.2.3 Chrome Developer Tools

We can use the Chrome Developer Tools Inspector to play with the CSS on my websites. We can view and modify the CSS for any element on the current page. It helps to have an understanding of how CSS works in order to work with the inspector, and understanding the hierarchy of elements will save you a lot of wasted time trying to change a style for an element that is then overwritten farther down the cascade.

1.2.4 CSS structure

```
body {
    background-color: lightblue;
}

h1 {
    color: white;
    text-align: center;
}

p {
    font-family: verdana;
    font-size: 20px;
}
```

1.2.5 Advantages:

- CSS saves time : You can write CSS once and reuse the same sheet in multiple HTML pages.
- Easy Maintenance : To make a global change simply change the style, and all elements in all the webpages will be updated automatically.
- Search Engines : CSS is considered as a clean coding technique, which means search engines won't have to struggle to "read" its content.
- Superior styles to HTML : CSS has a much wider array of attributes than HTML, so you can give a far better look to your HTML page in comparison to HTML attributes.
- Offline Browsing : CSS can store web applications locally with the help of offline cache. Using of this we can view offline websites.

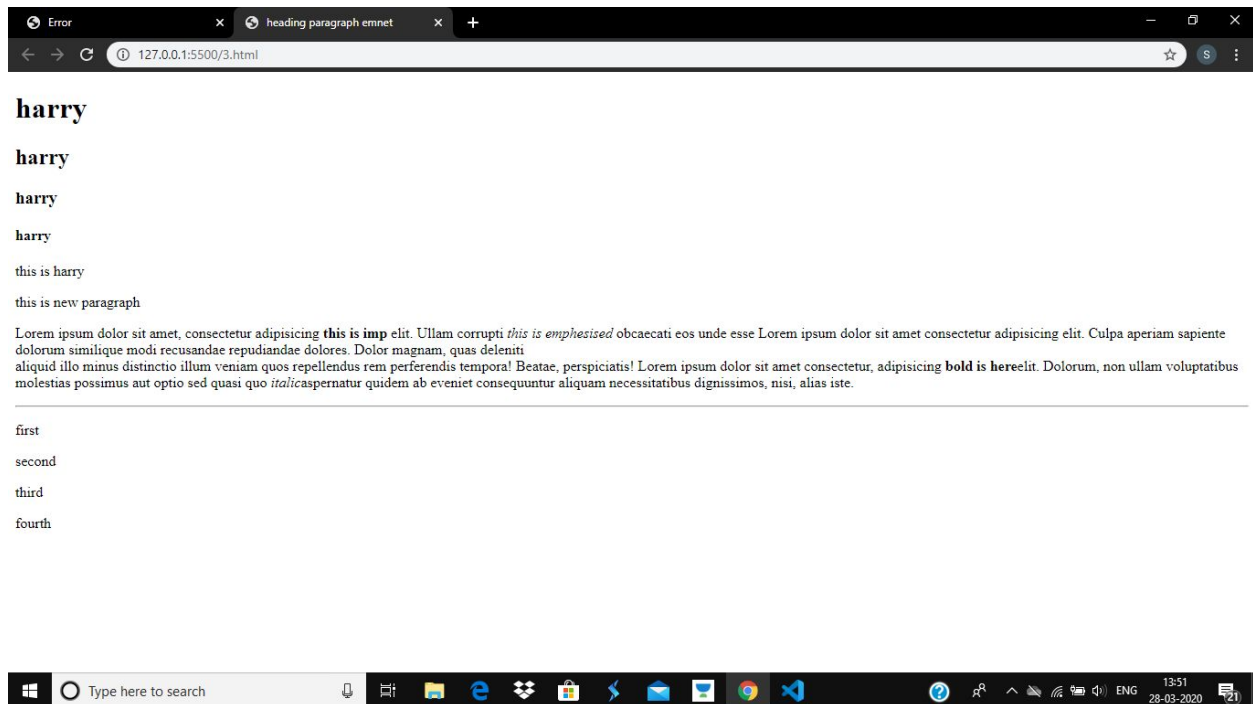
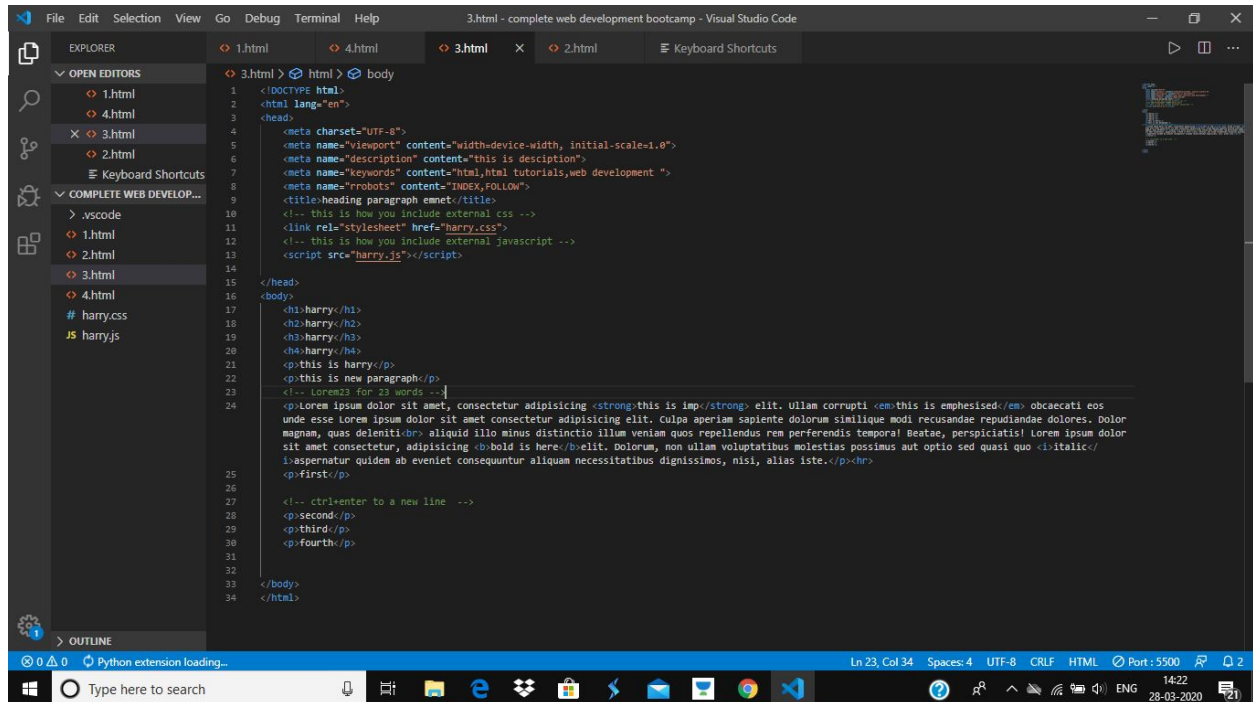
1.2.6 Disadvantages

1. Come in different levels: There's CSS, CSS 1 up to CSS3, which has resulted in confusion among developers and web browsers. One type of CSS should be enough. It would be preferable than having to choose which CSS level to use.
2. Fragmentation: With CSS, what works with one browser may not always work with another. This is why web developers have to test for compatibility, running the program across multiple browsers before a website is set live. If only people use Mozilla or Chrome, but they don't.
3. Lack of security : Because it is an open text-based system, CSS doesn't have the built-in security that will protect it from being overridden. Anyone who has a read/write access to a website can change the CSS file, alter the links or disrupt the formatting, whether by accident or design.

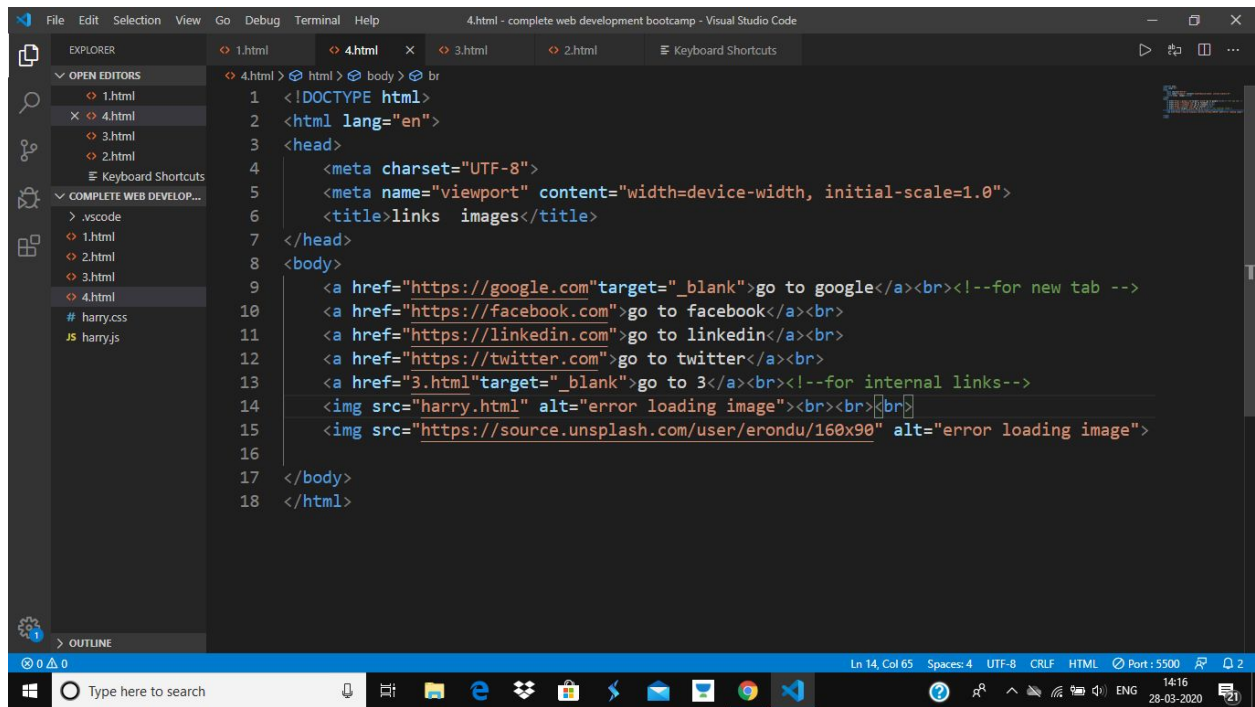
SCREENSHOTS

HTML

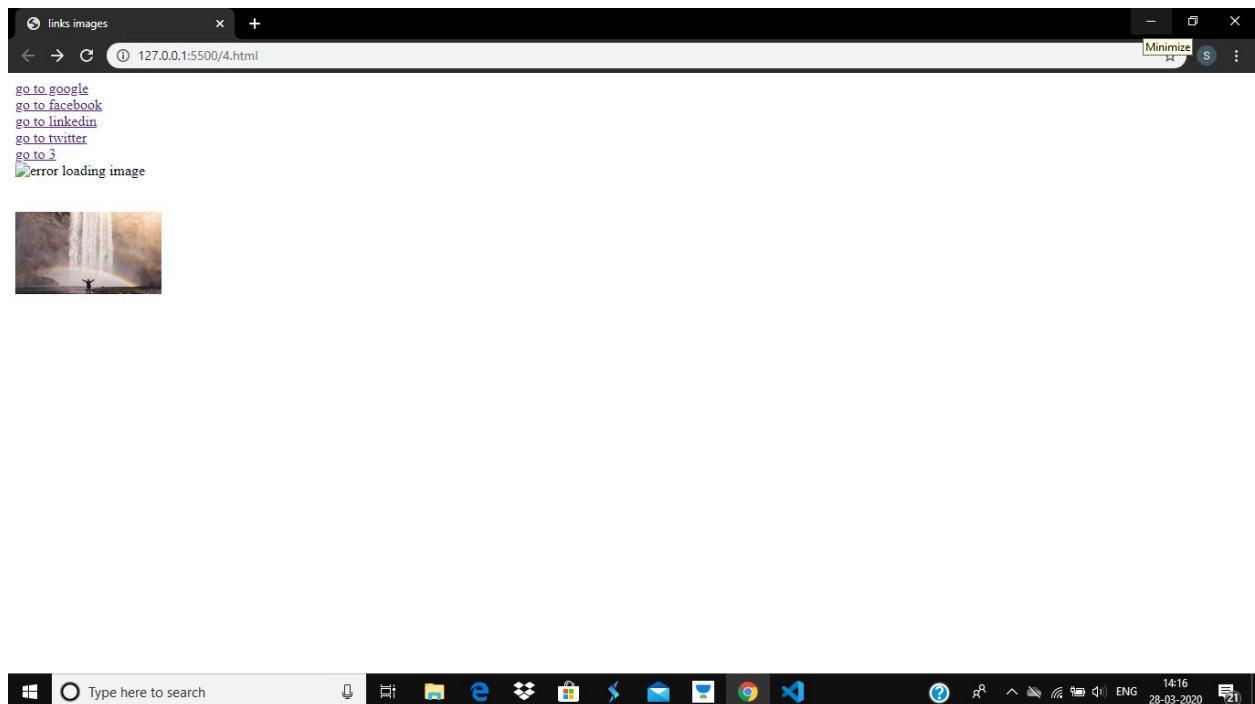
1) HEADING,PARAGRAPH,EMNET :-



2) LINKS,IMAGES :-



```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>links images</title>
7 </head>
8 <body>
9   <a href="https://google.com"target="_blank">go to google</a><br><!--for new tab -->
10  <a href="https://facebook.com">go to facebook</a><br>
11  <a href="https://linkedin.com">go to linkedin</a><br>
12  <a href="https://twitter.com">go to twitter</a><br>
13  <a href="3.html"target="_blank">go to 3</a><br><!--for internal links-->
14  <br><br>
15  
16
17 </body>
18 </html>
```



3) TABLES,LISTS

```

1 <!DOCTYPE html>
2 <html lang="en">
3
4 <head>
5   <meta charset="UTF-8">
6   <meta name="viewport" content="width=device-width, initial-scale=1.0">
7   <title>tables and lists</title>
8 </head>
9
10 <body>
11   <ul type="squares">
12     <li>this is first item of unordered list</li>
13     <li>this is second item of unordered list</li>
14     <li>
15       <ul type="I">
16         <li>another one </li>
17         <li>another two </li>
18         <li>another three </li>
19       </ul>
20     </li>
21     <li>this is third item of unordered list</li>
22   </ul>
23   <ul type="a">
24     <li>this is first item of ordered list</li>
25     <li>this is second item of ordered list</li>
26     <li>this is third item of ordered list</li>
27   </ul>
28   <table>
29     <thead>
30       <tr>
31         <th>name</th>
32         <th>id</th>
33         <th>address</th>
34       </tr>
35     </thead>
36     <tbody>
37       <tr>
38         <td>mary</td>
39         <td>4</td>
40         <td>abcdoy</td>
41       </tr>
42       <tr>
43         <td>ma</td>
44         <td>48</td>
45         <td>abcvdoy</td>
46       </tr>
47     </tbody>
48   </table>
49 </body>
50 </html>

```



- this is first item of unordered list
- this is second item of unordered list
- I. another one
- II. another two
- III. another three
- this is third item of unordered list
- a. this is first item of ordered list
- b. this is second item of ordered list
- c. this is third item of ordered list

HTML TABLE

name	id	address
mary	4	abcdoy
ma	48	abcvdoy



4) FORMS

```

1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>forms</title>
7 </head>
8 <body>
9   <h3> this is form</h3>
10  <form action="backend.php"></form>
11  <div>
12    name:<input type="text" name="mytext">
13    time:<input type="time" name="mytime">
14  </div>
15  <br>
16  <div>
17    date:<input type="date" name="mydata">
18    email:<input type="email" name="myemail">
19  </div>
20  <br>
21  gender: male <input type="radio" name="mygender"> female <input type="radio" name="mygender">
22 </div>
23 <br>
24  <label for="car">car:</label>
25  <select name="mycar" id="car">
26    <option value="indica">indica</option>
27    <option value="maruti">maruti</option>
28    <option value="innova">innova</option>
29  </select>
30  <br>
31  <div>
32    write about yourself:<textarea name="mytext" cols="30" rows="5"></textarea>
33  </div>
34  <div>
35    are you eligible?:<input type="checkbox" name="myeligibility">
36  </div>
37  <br>
38  <div>
39    <input type="submit" value="submit now">
40    <input type="reset" value="reset now">
41  </div>
42 </body>
43 </html>

```

this is form

name: time:

date: email:

gender: male ☒ female ☐

car:

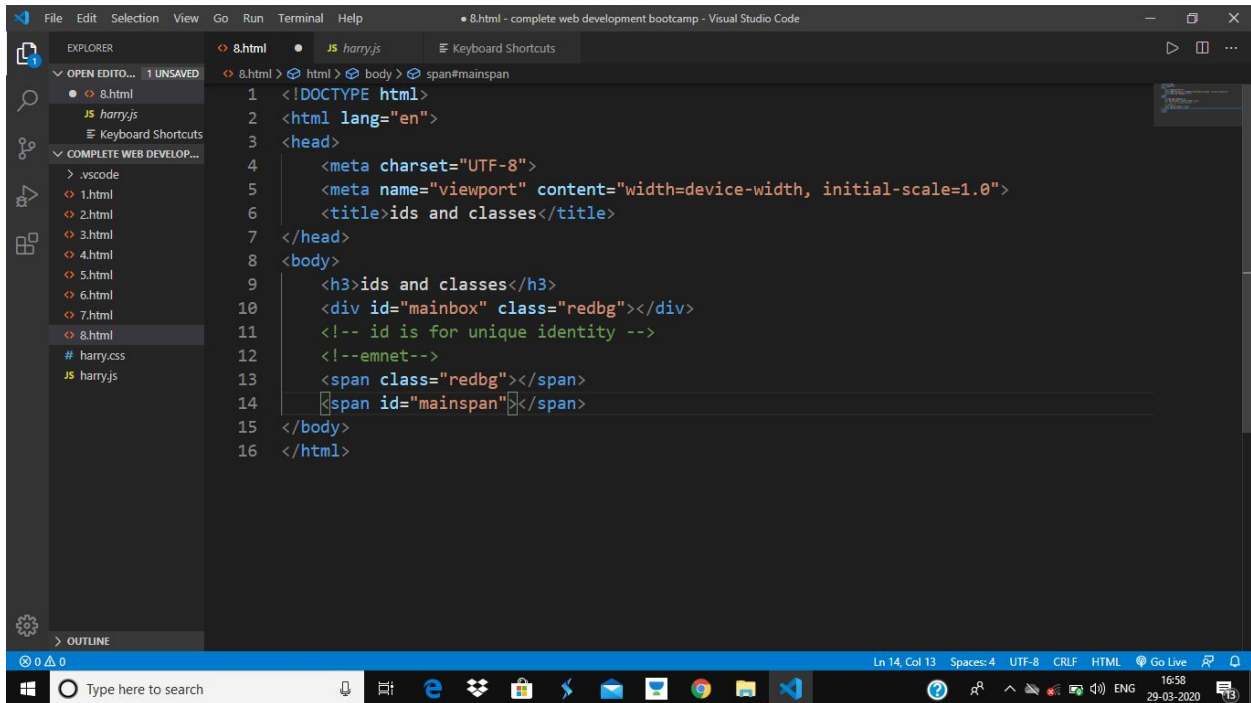
write about yourself

are you eligible?: ☐

5) INLINE AND BLOCK ELEMENTS



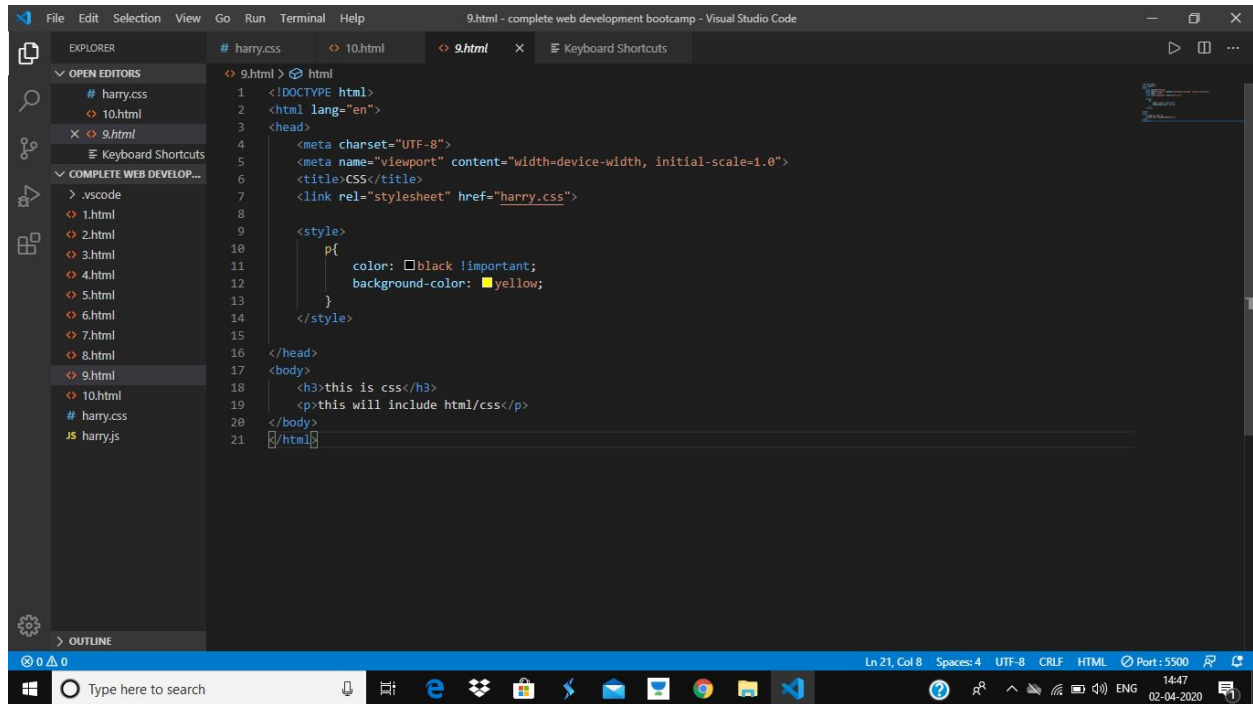
6) ID'S AND CLASSES



```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>ids and classes</title>
7 </head>
8 <body>
9   <h3>ids and classes</h3>
10  <div id="mainbox" class="redbg"></div>
11  <!-- id is for unique identity -->
12  <!-- emnet -->
13  <span class="redbg"></span>
14  <span id="mainspan"></span>
15 </body>
16 </html>
```

CSS

1) BACKGROUND,COLOR,FONT



The screenshot shows the Visual Studio Code editor interface. The Explorer sidebar on the left displays the file structure, including 'harry.css' and '9.html'. The main editor area shows the content of '9.html', which includes a DOCTYPE declaration, a meta charset, a viewport meta tag, a link to 'harry.css', and a style block. The style block contains a rule for the 'p' selector, setting the color to black and the background-color to yellow. The HTML body contains an h3 tag with the text 'this is css' and a paragraph tag with the text 'this will include html/css'.

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>CSS</title>
7   <link rel="stylesheet" href="harry.css">
8
9   <style>
10     p{
11       color: black !important;
12       background-color: yellow;
13     }
14   </style>
15
16 </head>
17 <body>
18   <h3>this is css</h3>
19   <p>this will include html/css</p>
20 </body>
21 </html>
```

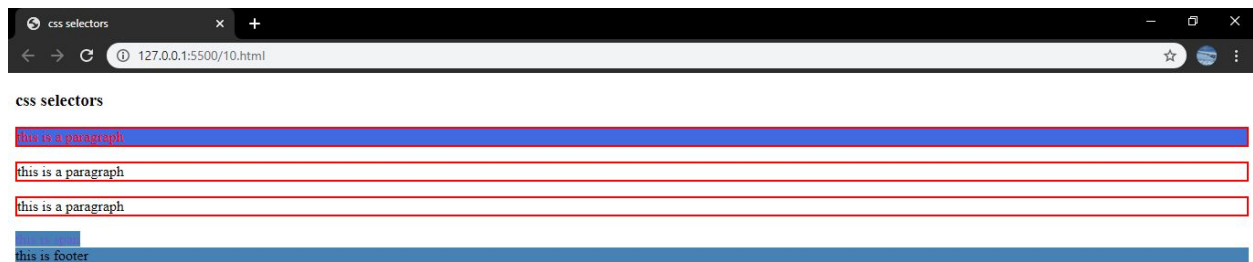
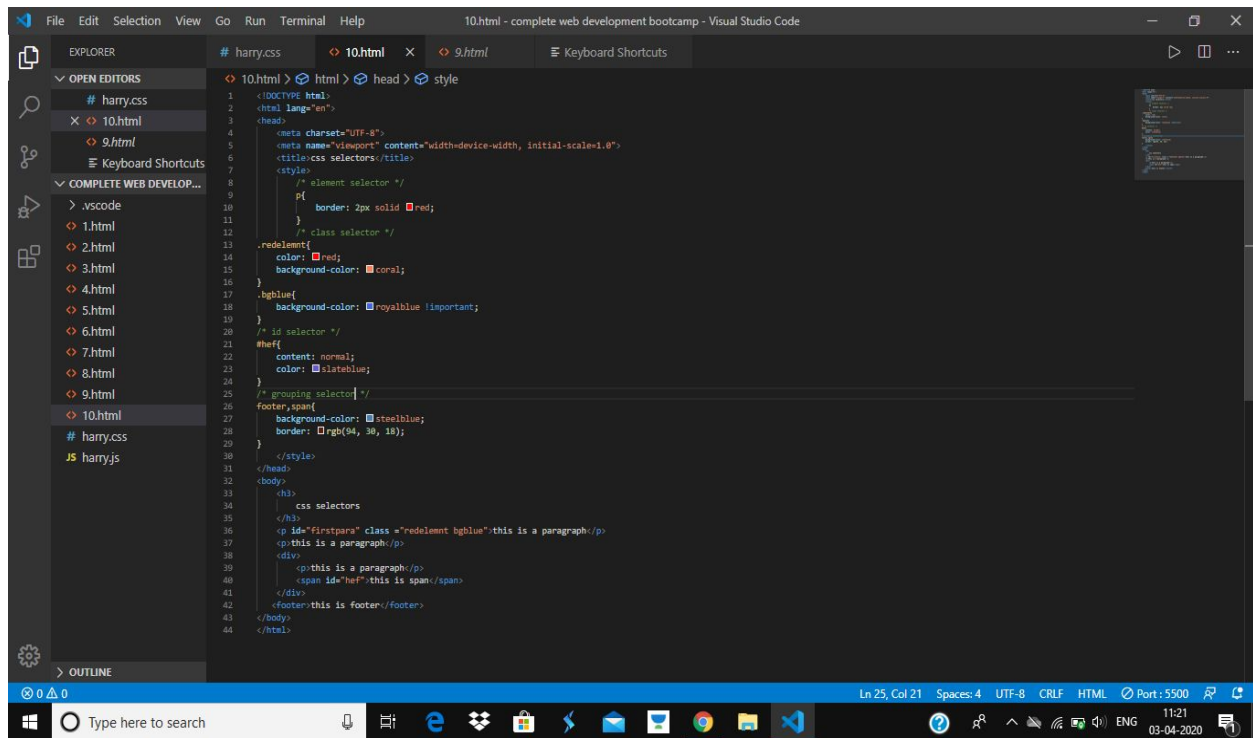


this is css

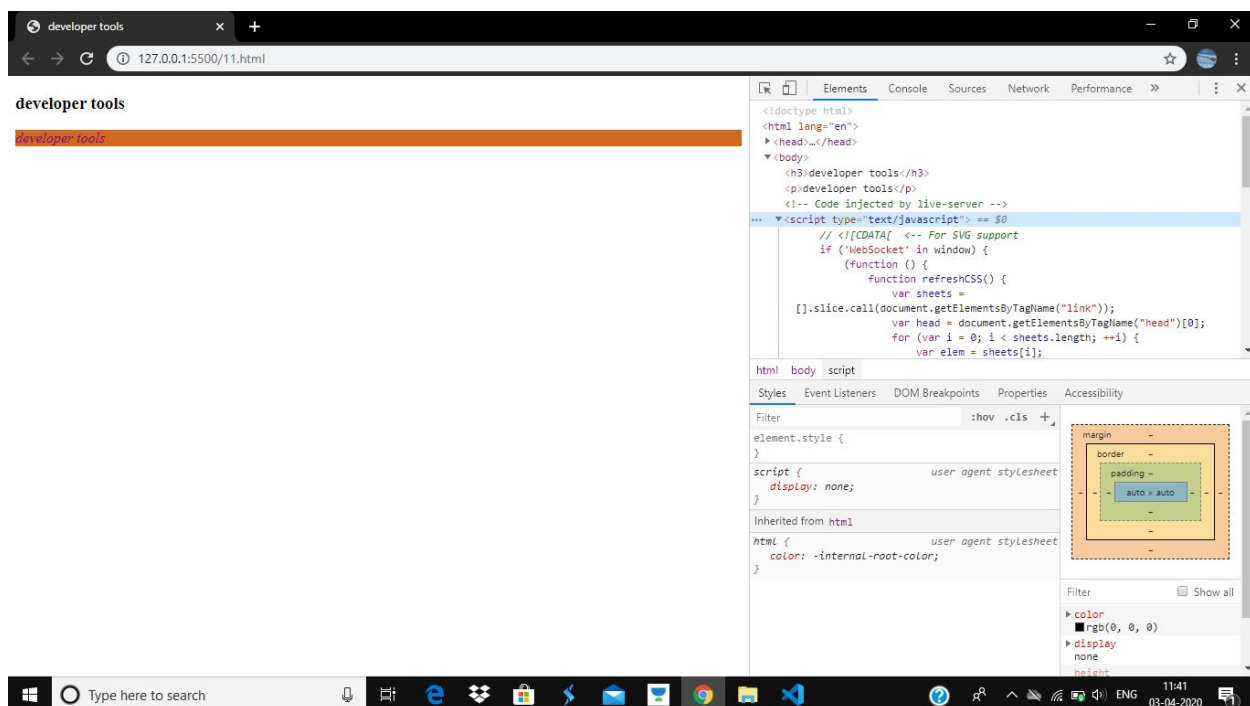
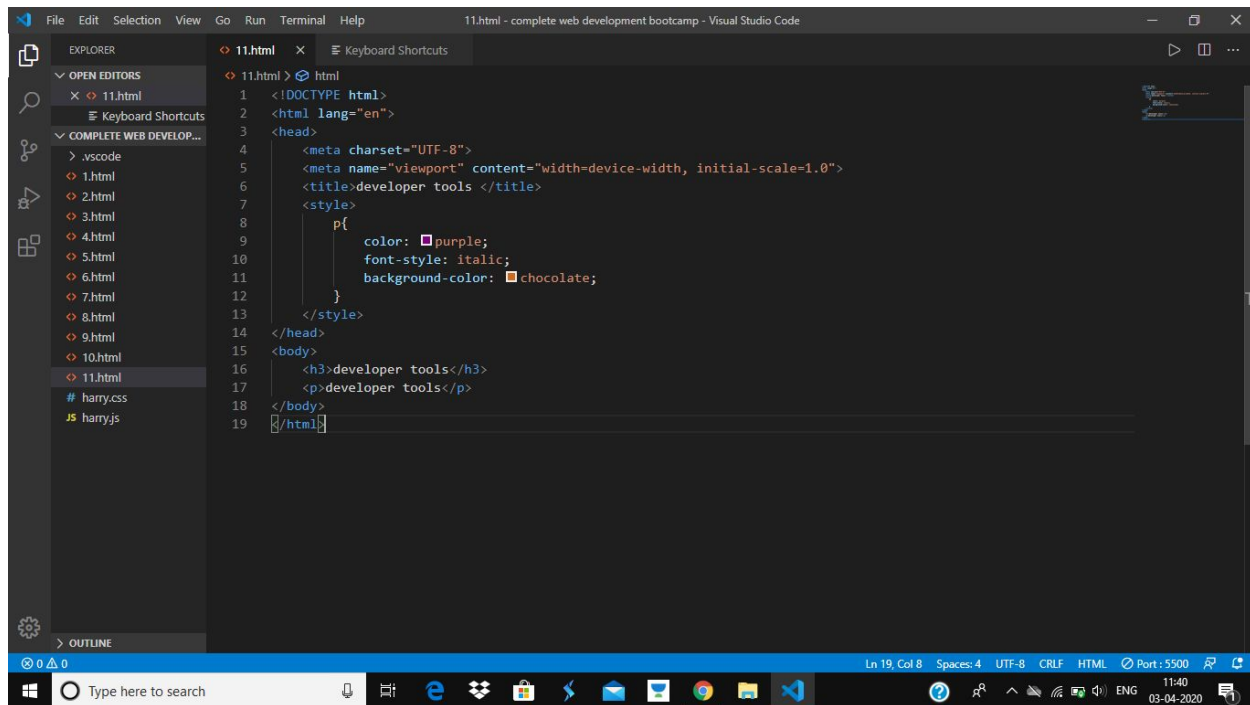
this will include html/css



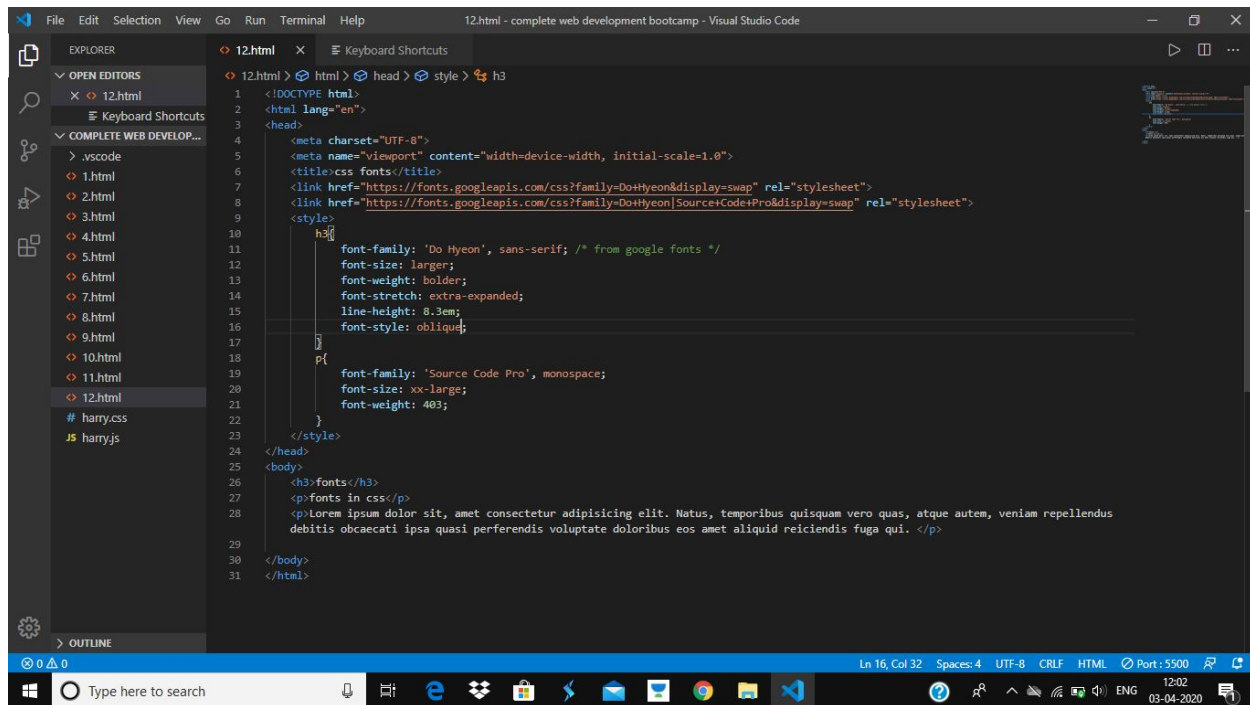
2) CSS SELECTORS :-



3) DEVELOPER TOOLS



4) CSS FONTS / (GOOGLE FONTS)



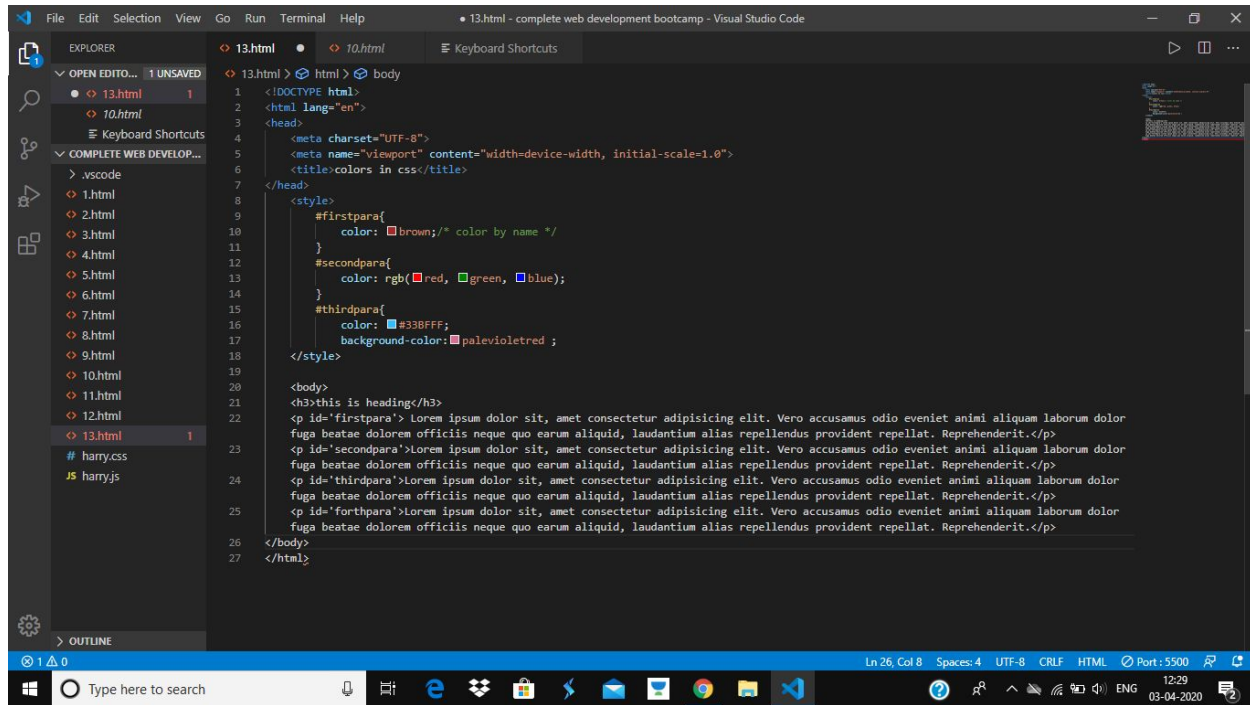
fonts

fonts in css

Lorem ipsum dolor sit, amet consectetur adipisicing elit. Natus, temporibus quisquam vero quas, atque autem, veniam repellendus debitis obcaecati ipsa quasi perferendis voluptate doloribus eos amet aliquid reiciendis fuga qui.



5) CSS COLOURS



this is heading

Lorem ipsum dolor sit, amet consectetur adipisicing elit. Vero accusamus odio eveniet animi aliquam laborum dolor fuga beatae dolorem officiis neque quo earum aliquid, laudantium alias repellendus provident repellat. Reprehenderit.

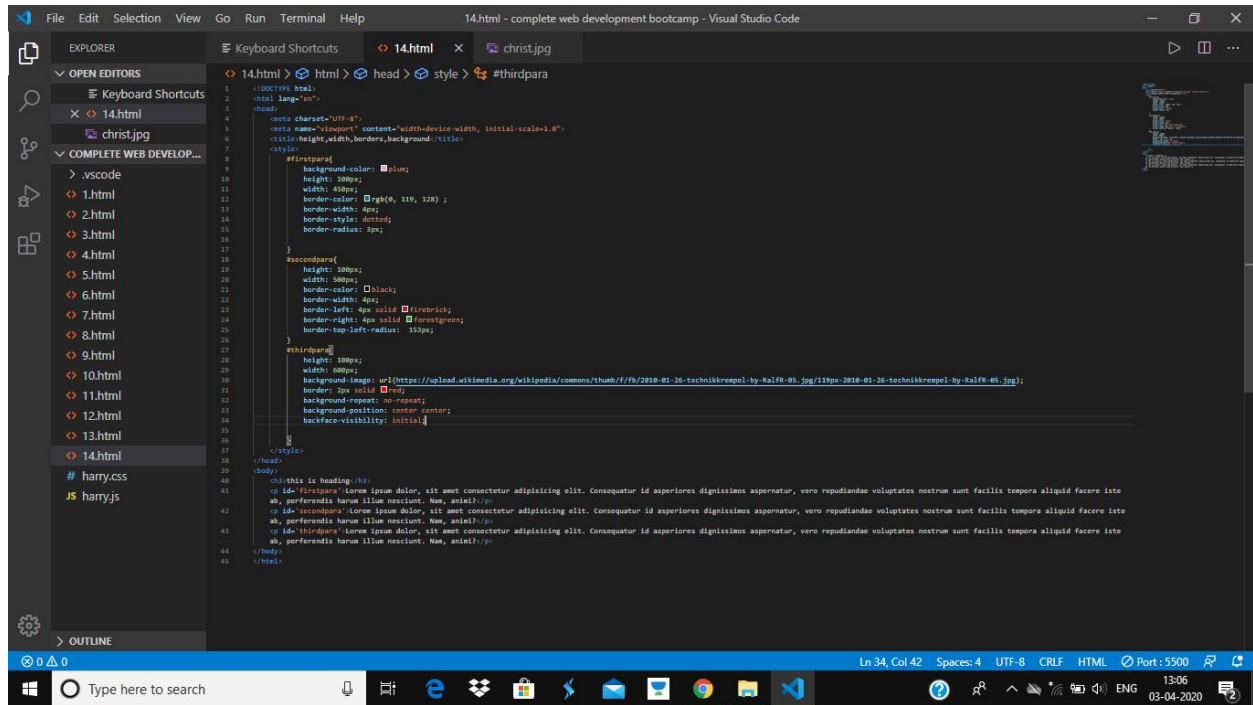
Lorem ipsum dolor sit, amet consectetur adipisicing elit. Vero accusamus odio eveniet animi aliquam laborum dolor fuga beatae dolorem officiis neque quo earum aliquid, laudantium alias repellendus provident repellat. Reprehenderit.

Lorem ipsum dolor sit, amet consectetur adipisicing elit. Vero accusamus odio eveniet animi aliquam laborum dolor fuga beatae dolorem officiis neque quo earum aliquid, laudantium alias repellendus provident repellat. Reprehenderit.

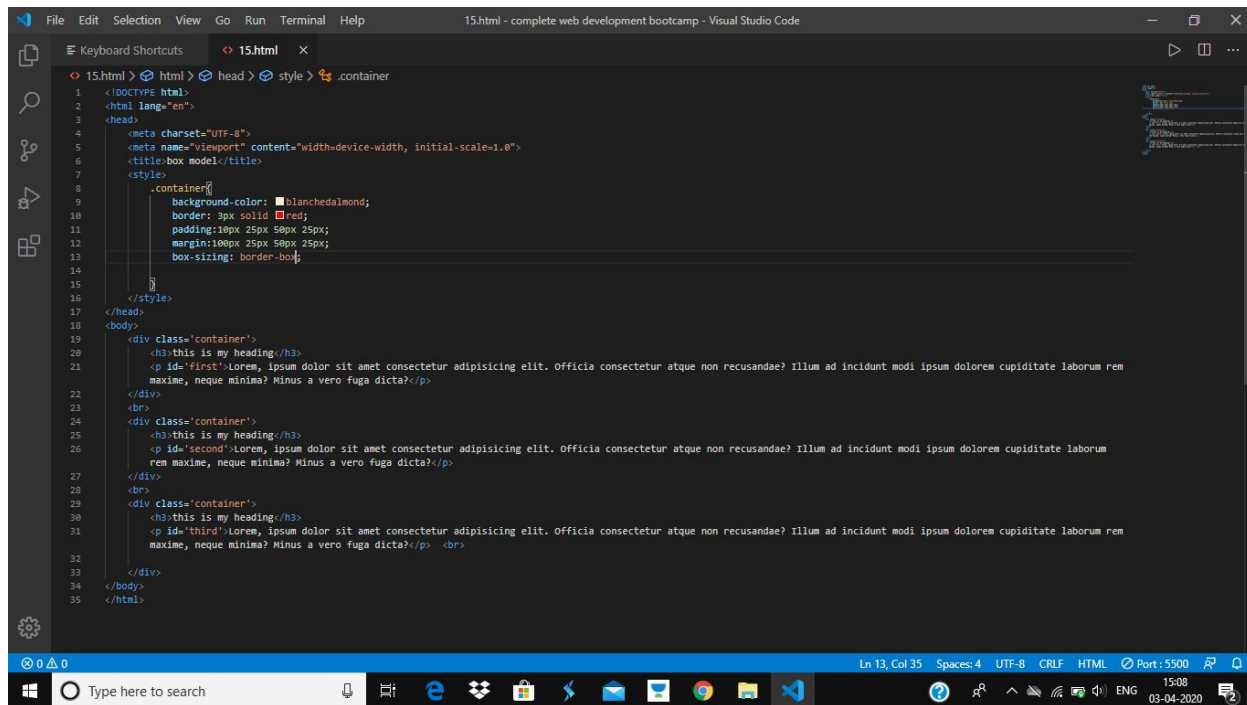
Lorem ipsum dolor sit, amet consectetur adipisicing elit. Vero accusamus odio eveniet animi aliquam laborum dolor fuga beatae dolorem officiis neque quo earum aliquid, laudantium alias repellendus provident repellat. Reprehenderit.



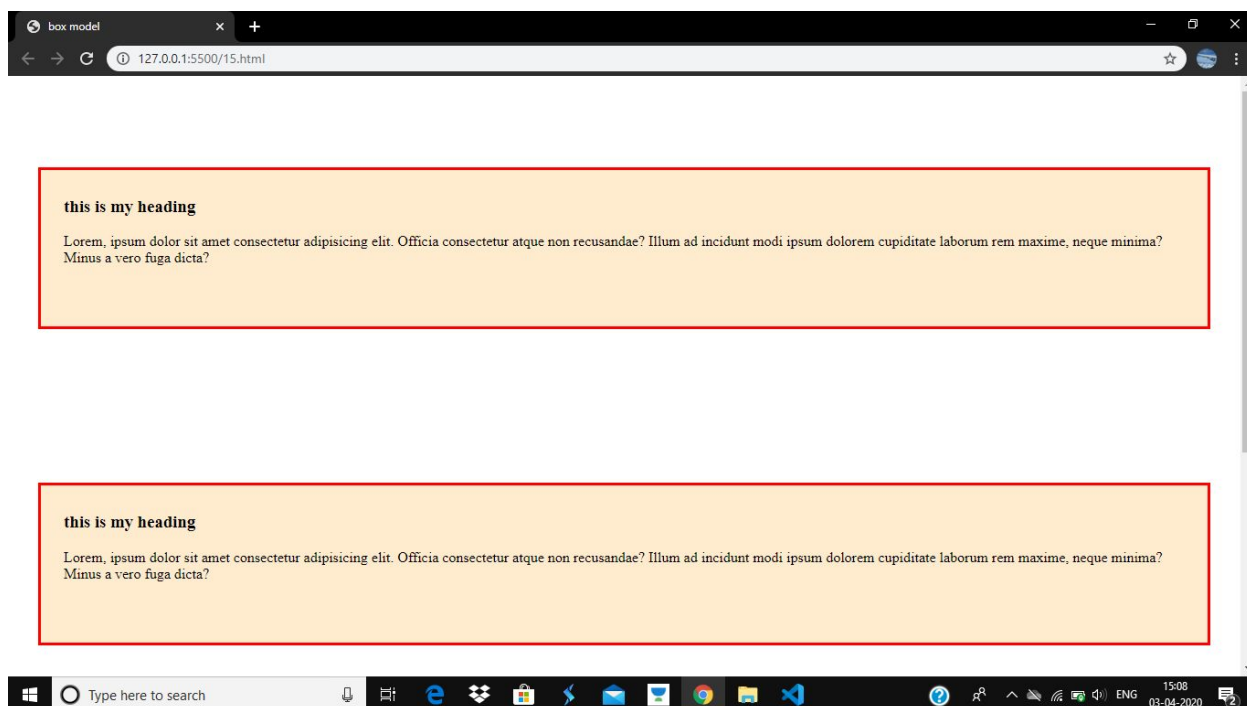
6) HEIGHT,WIDTH,BORDER,BACKGROUND IMAGES



7) BOX MODEL



```
15.html - complete web development bootcamp - Visual Studio Code
File Edit Selection View Go Run Terminal Help
15.html x
Keyboard Shortcuts
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>box model</title>
7   <style>
8     .container{
9       background-color: #blanchedalmond;
10      border: 3px solid red;
11      padding: 10px 25px 50px 25px;
12      margin: 10px 25px 50px 25px;
13      box-sizing: border-box;
14    }
15  </style>
16 </head>
17 <body>
18   <div class="container">
19     <h3>this is my heading</h3>
20     <p id="first">Lorem, ipsum dolor sit amet consectetur adipisicing elit. Officia consectetur atque non recusandae? Illum ad incididunt modi ipsum dolore cupiditate laborum rem maxime, neque minima? Minus a vero fuga dicta</p>
21   </div>
22   <br>
23   <div class="container">
24     <h3>this is my heading</h3>
25     <p id="second">Lorem, ipsum dolor sit amet consectetur adipisicing elit. Officia consectetur atque non recusandae? Illum ad incididunt modi ipsum dolore cupiditate laborum rem maxime, neque minima? Minus a vero fuga dicta</p>
26   </div>
27   <br>
28   <div class="container">
29     <h3>this is my heading</h3>
30     <p id="third">Lorem, ipsum dolor sit amet consectetur adipisicing elit. Officia consectetur atque non recusandae? Illum ad incididunt modi ipsum dolore cupiditate laborum rem maxime, neque minima? Minus a vero fuga dicta</p> <br>
31   </div>
32 </body>
33 </html>
```



8) ALIGNMENT

```

1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <link href="https://fonts.googleapis.com/css?family=Roboto:400,500,700,900" rel="stylesheet">
7 </head>
8 <body>
9   <div class="container">
10     <div class="list">
11       <ul>
12         <li>fruits</li>
13         <li>computer</li>
14       </ul>
15     </div>
16   </div>
17 </body>
18 </html>

```

```

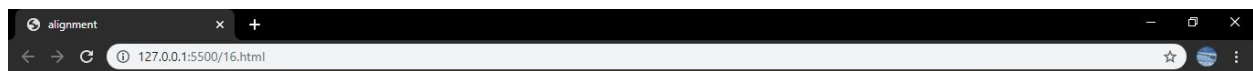
1 .container {
2   height: 200px;
3   border: 1px solid #ccc;
4   padding: 10px;
5   margin: 10px;
6 }
7
8 .list {
9   height: 100px;
10  border: 1px solid #ccc;
11  padding: 10px;
12  margin: 10px;
13 }
14
15 .computer {
16   height: 100px;
17   border: 1px solid #ccc;
18   padding: 10px;
19   margin: 10px;
20 }

```

```

1 <!-- fruits -->
2 <div class="fruits">
3   <h3>fruits</h3>
4   <p>Lorem ipsum dolor sit amet consectetur, adipisicing elit. Nisi, temporibus blanditiis? Atque ipsum eligendi, faciliis iure natus doloribus a aperiam reiciendis obcaecati nam eos est officia eum. Iusto, vitae cum.</p>
5 </div>
6
7 <!-- computer -->
8 <div class="computer">
9   <h3>computer</h3>
10  <p>Lorem ipsum dolor sit amet consectetur adipisicing elit. Ut explicabo voluptatibus et sit sed laboriosam, maiores corrupti ipsum aut quis minima itaque reiciendis eveniet officia? Officia suscipit voluptate perspiciatis saepe.</p>
11 </div>

```



9) PSEUDO SELECTOR, BUTTONS

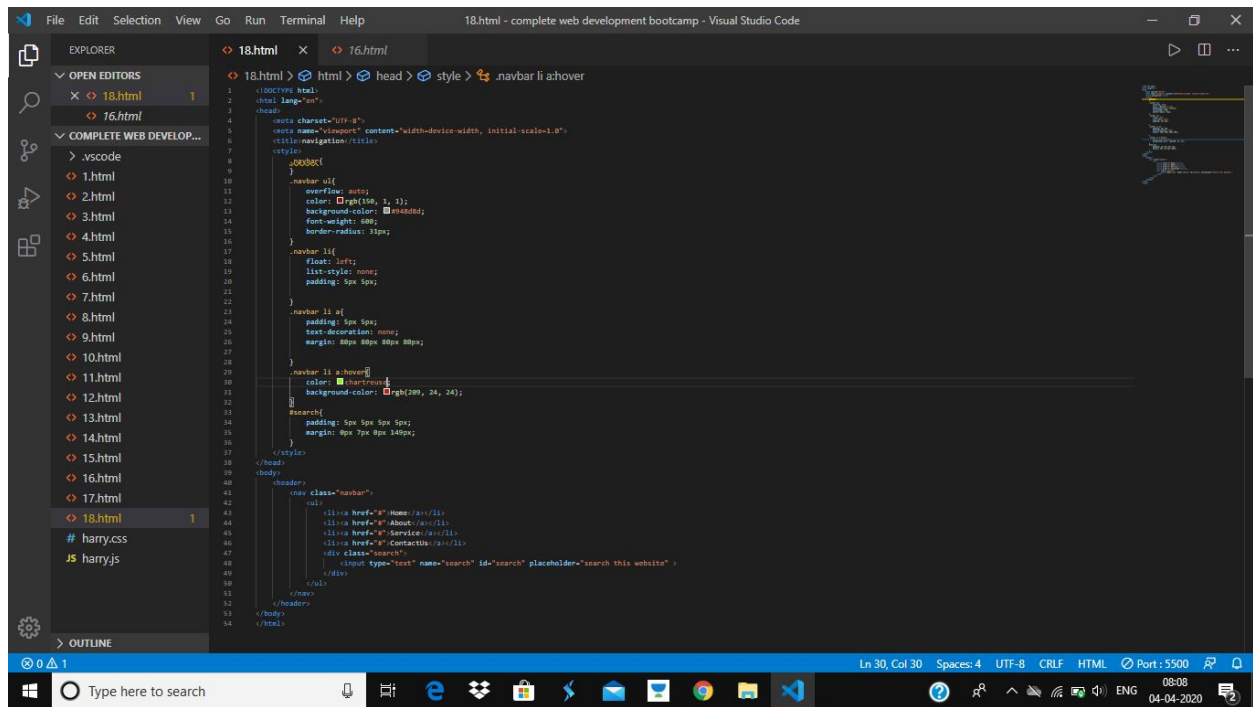
```

1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4 <meta charset="UTF-8">
5 <meta name="viewport" content="width=device-width, initial-scale=1">
6 <title>pseudo selector & more designing</title>
7 <link href="https://fonts.googleapis.com/css?family=Montserrat:400,700" rel="stylesheet">
8 </head>
9
10 <body>
11 <div class="container">
12 <div class="text">
13 <h2>this is my heading</h2>
14 <p>Lorem ipsum dolor sit amet consectetur adipiscing elit. Hic officis ut sint eos nisi quia neque temporibus eligendi quod! Inventore ullam nam perferendis nulla, eveniet amet ne nesciunt cupiditate voluptates!</p>
15 </div>
16 <div class="button">
17 <button class="readmore">readmore</button>
18 <button class="contactus">contactus</button>
19 <button class="menu">menu</button>
20 <button class="Link">Link</button>
21 <button class="Button">Button</button>
22 </div>
23 </div>
24 </body>
25 </html>

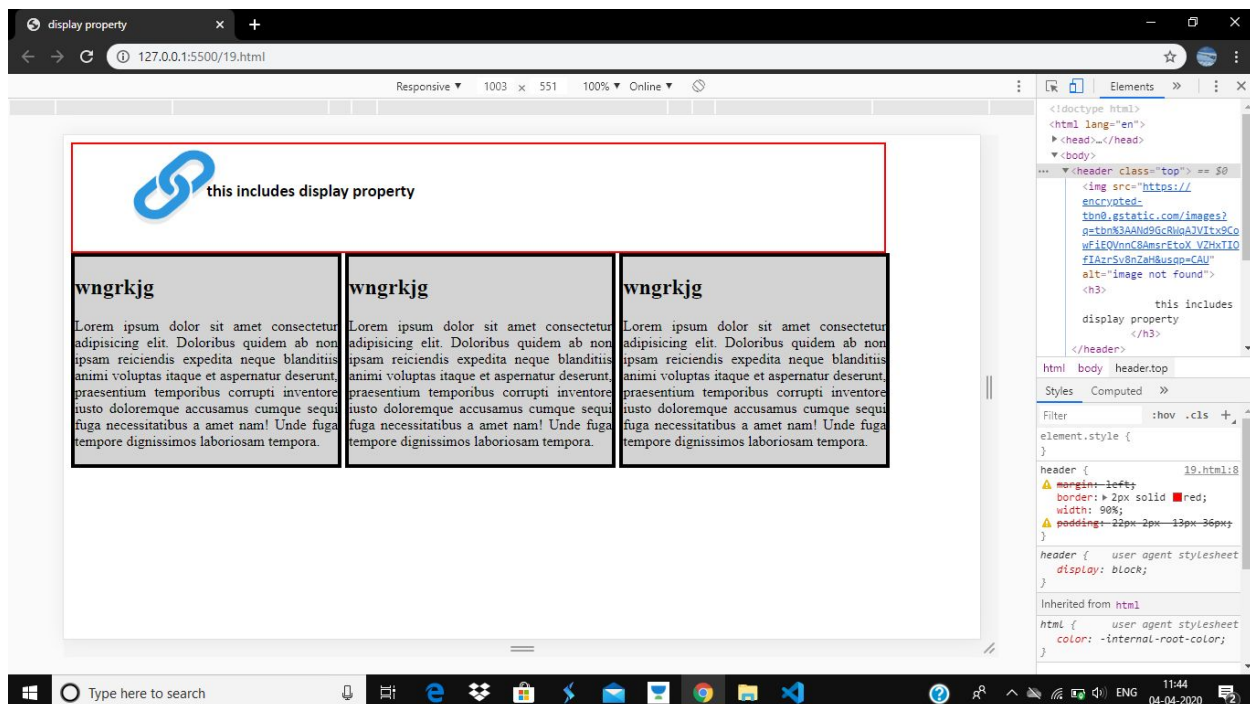
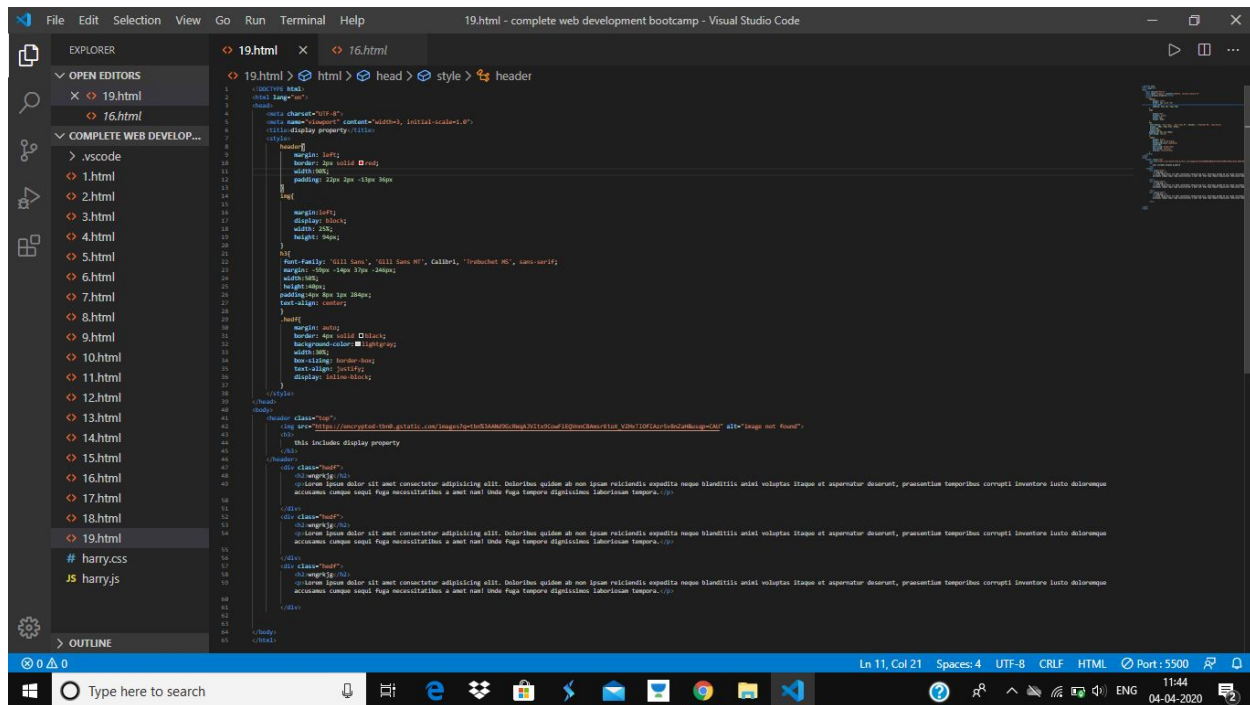
```



10) NAVIGATION



11) DISPLAY PROPERTY



12) POSITION PROPERTIES

```

1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>position properties of css</title>
7 </head>
8 <style>
9   .container{
10     background-color: lightseagreen;
11     height: 5000px;
12   }
13   .box1{
14     border: 2px solid black;
15     width: 100px;
16     height: 30px;
17     margin: auto;
18     display: inline-block;
19   }
20   .box2{
21     position: relative;
22     /* relative: relative to its original position and will leave a gap at its normal position */
23     top: 5px;
24   }
25   .box3{
26     position: fixed;
27     /* fixed: relative to browser window */
28     right: 5px;
29     bottom: 5px;
30   }
31   .box4{
32     position: sticky;
33     top: 5px;
34   }
35   .box5{
36     position: absolute;
37     /* absolute: position relative to the position of its first parent */
38   }
39 </style>
40 <body>
41 <div class="container">
42   <div class="box" id="box1">1</div>
43   <div class="box" id="box2">2</div>
44   <div class="box" id="box3">3</div>
45   <div class="box" id="box4">4</div>
46   <div class="box" id="box5">5</div>
47 </div>
48 </body>
49 </html>

```

