<u>HTML & CSS Assignment</u>

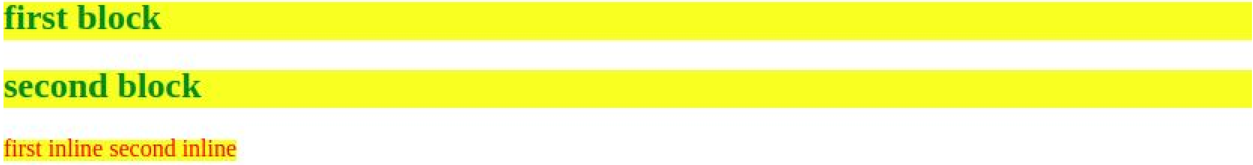
Q.1 How are inline and block elements different from each other?

Ans-> Inline elements consume space next to each other while block elements consume an entirely new block in new line.

Also width can’t be controlled in inline but in block elements

For ex:

```
<body>

   <div>
       <h2 class="block"> first block </h2>
       <h2 class="block"> second block </h2>
  </div>

   <span class="inline">
       first inline
   </span>
   <span class="inline">
       second inline
   </span>

<style>
.block{

   background-color: yellow;
   color: green;
}
.inline{
   background-color: yellow;
   color: red;
}

</style>

</body>
```



first block

second block

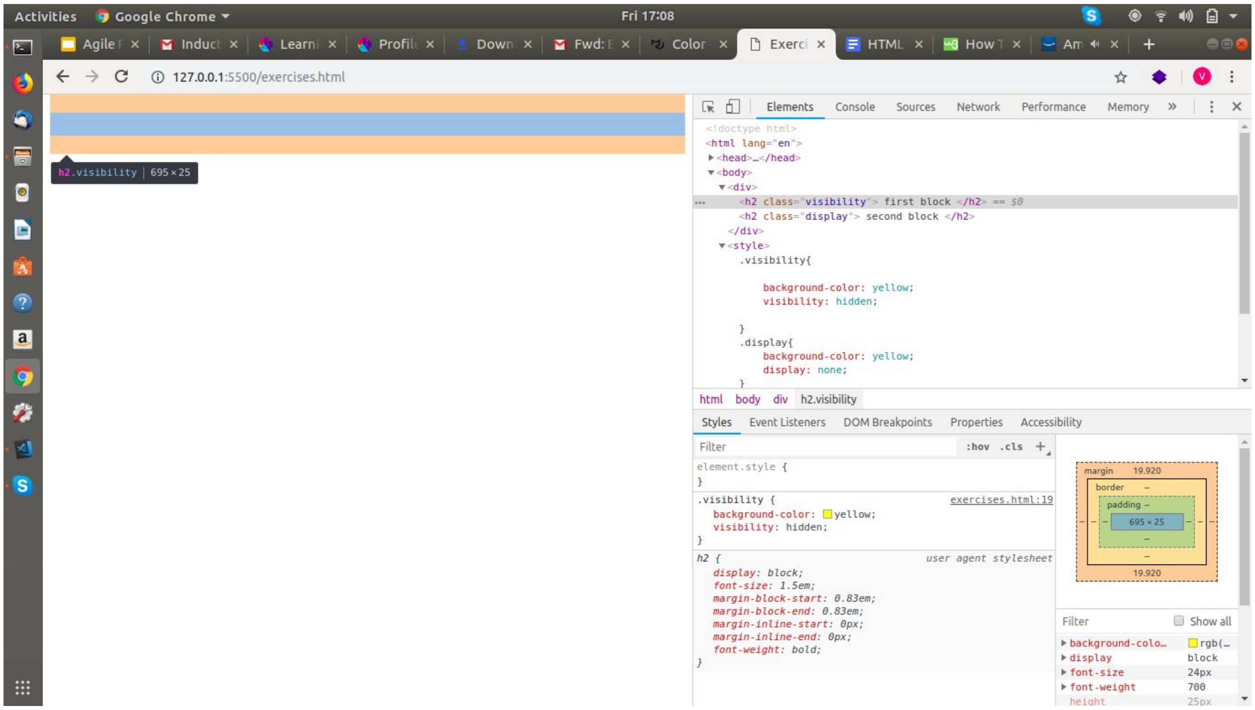
first inline second inline

Q.2 Explain the difference between visibility:hidden and display:none?

Ans-> visibility:hidden hides the element but element still renders on the page and consumes space but display:none would not render the element on page.

The similarities between two is both will not be visible to users.

For example -> in this screenshot when we tried to find our blocks with chrome dev tools it shows a virtual box around the element with visibility class but did not show anything around element with display class.



```
<!doctype html>
<html lang="en">
▶<head>…</head>
▼<body>
  ▼<div>
      <h2 class="visibility"> first block </h2> == $0
      <h2 class="display"> second block </h2>
    </div>
  ▼<style>
      .visibility{

          background-color: yellow;
          visibility: hidden;

      }
      .display{
          background-color: yellow;
          display: none;
      }
```

```
element.style {
}
.visibility {                                exercises.html:19
   background-color: yellow;
   visibility: hidden;
}
h2 {                                   user agent stylesheet
   display: block;
   font-size: 1.5em;
   margin-block-start: 0.83em;
   margin-block-end: 0.83em;
   margin-inline-start: 0px;
   margin-inline-end: 0px;
   font-weight: bold;
}
```

```
▶ background-colo…   rgb(…
▶ display            block
▶ font-size          24px
▶ font-weight        700
  height             25px
```

Q.3 . Explain the clear and float properties.

Ans -> float and clear properties are used to layout the page and let the other elements flow around for example an image flows around text in a newspaper.

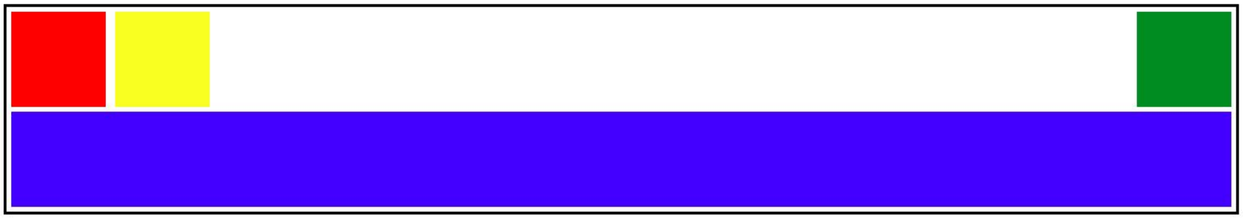
However, there are better alternatives available than float for page layout for ex css3 flexbox.

Float-> float accepts three values ie. left, right and none and its used to let element flow aside to each other.

Clear- > clear also accepts three values ie left,right and both and its used to clear the space according to given value and let the element flow in new block.

A practical code would demonstrate better ->

```
<body>
  <div  class="container">



  <div id=red class="block">

  </div>
  <div id="yellow" class="block" >

  </div>
  <div id="green" class="block">

  </div>
  <div id="blue" class="block">

  </div>

   </div>
<style>
.container{

   border-style: solid;
   border-color: black;
}
.block{
   padding: 50px;
   margin: 5px;
}
#red{
   background-color: red;
   float:left;
}
#blue{
   background-color: blue;
   clear: right;;
}
#green{
   background-color: green;
   float:right;

}
#yellow{
   background-color: yellow;
   float:left;
}


</style>

</body>
```

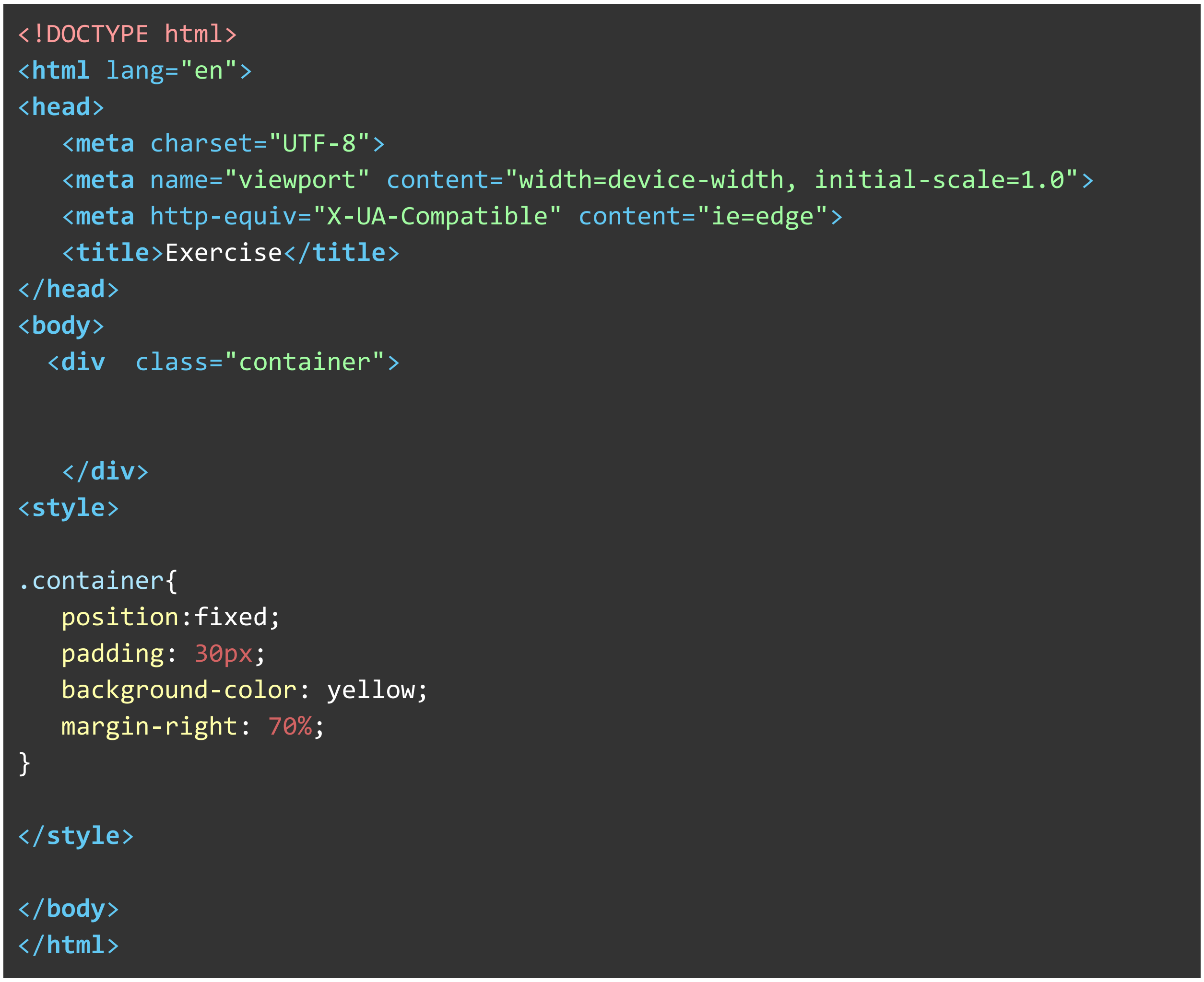


In this code we take 4 boxes and apply different float and clear properties to find their usage.

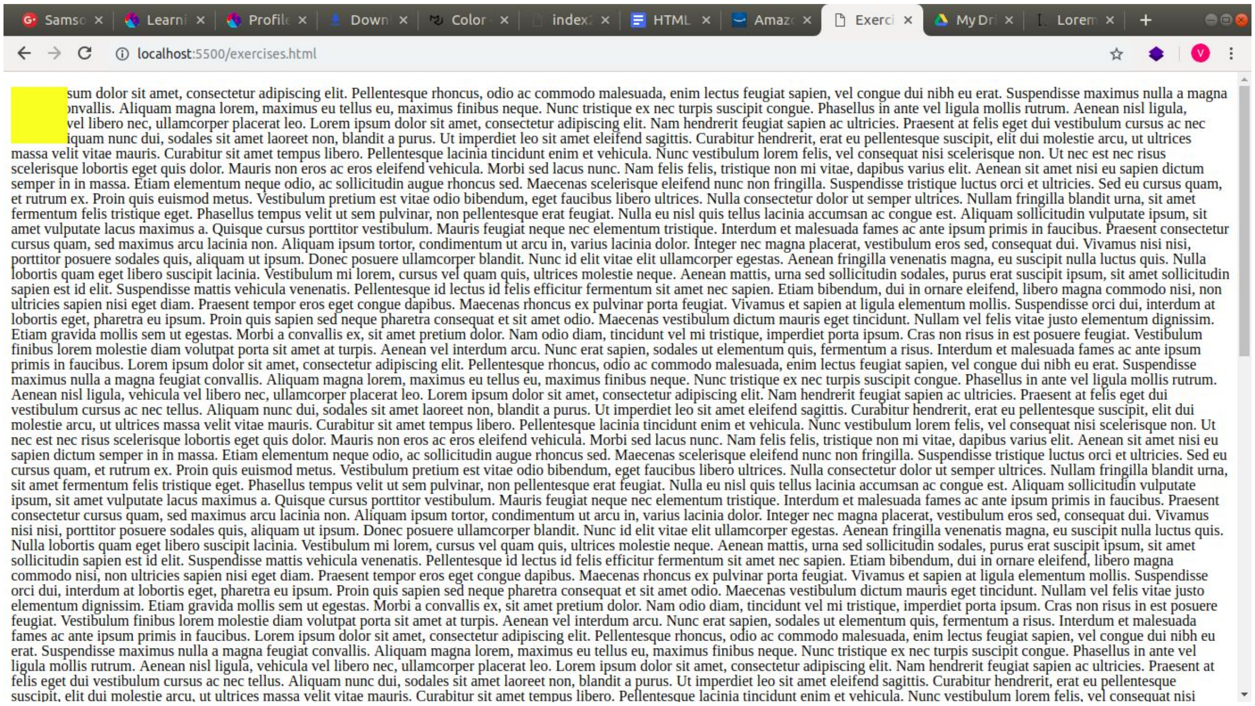
Q.4 explain difference between absolute, relative,fixed and static.
Ans -> These are the position types in css

Fixed -> If fixed position is given to an element then it would be fixed on the web page and would always be there even if we scroll the page.

For ex ->



```html
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <meta http-equiv="X-UA-Compatible" content="ie=edge">
   <title>Exercise</title>
</head>
<body>
  <div  class="container">


   </div>
<style>

.container{
   position:fixed;
   padding: 30px;
   background-color: yellow;
   margin-right: 70%;
}

</style>

</body>
</html>
```



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Aliquam nunc dui, sodales sit amet laoreet non, blandit a purus. Ut imperdiet leo sit amet eleifend sagittis. Curabitur hendrerit, erat eu pellentesque suscipit, elit dui molestie arcu, ut ultrices massa velit vitae mauris. Curabitur sit amet tempus libero. Pellentesque lacinia tincidunt enim et vehicula. Nunc vestibulum lorem felis, vel consequat nisi

Absolute->

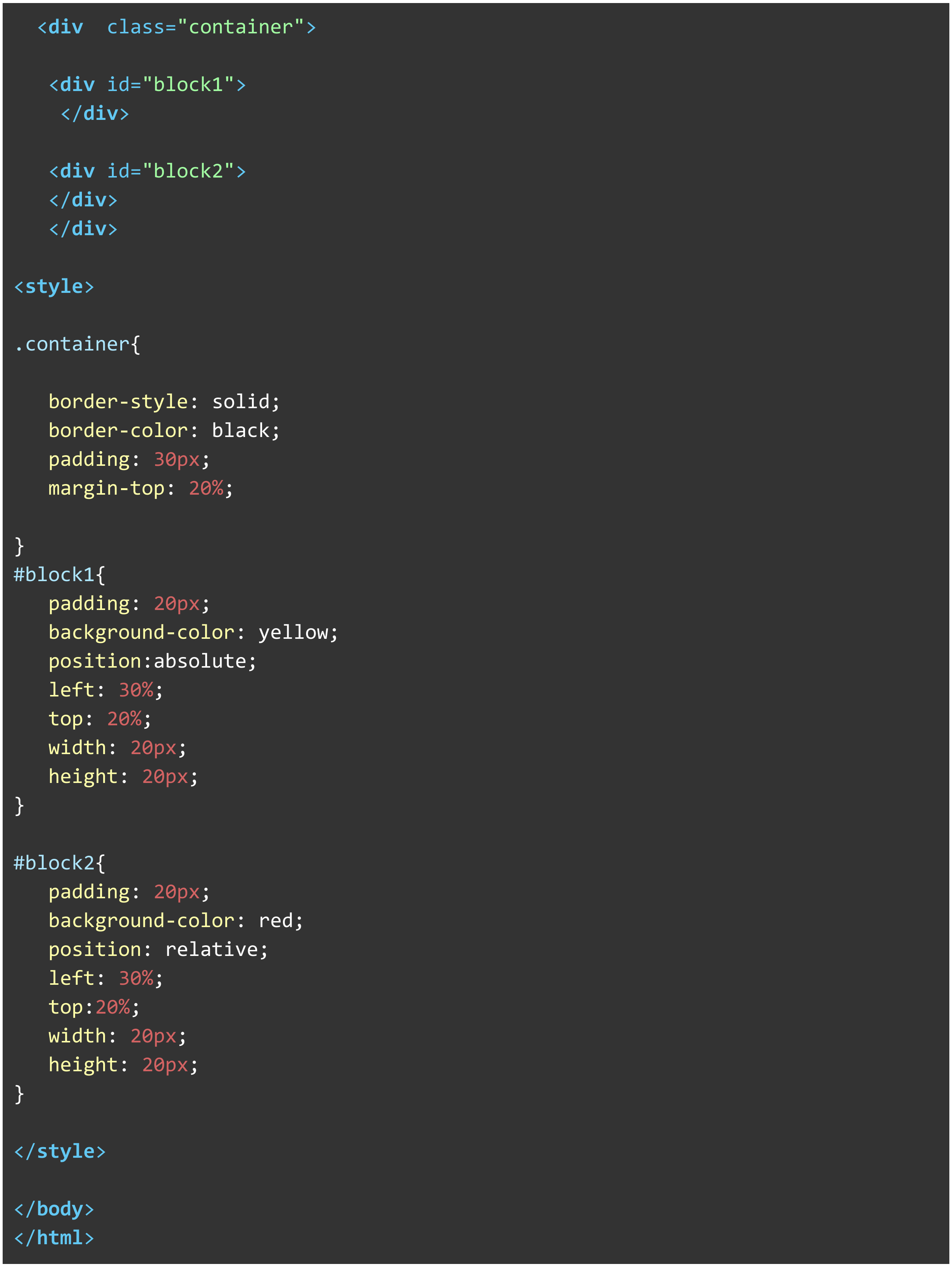
Absolute positioning allow us to place element related to the nearest ancestor using left, right, top and bottom.

Relative ->

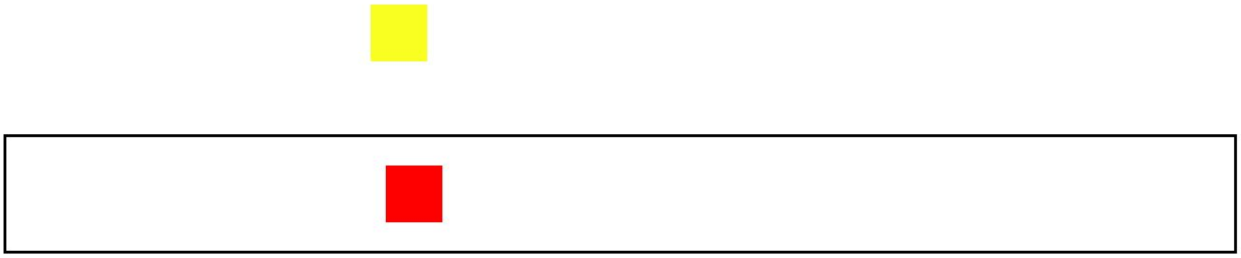
When relative positioning is given the element position itself based on its how its normally placed by browser using left, right, top and bottom.

For example - >

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <meta http-equiv="X-UA-Compatible" content="ie=edge">
   <title>Exercise</title>
</head>
<body>
```



```
  <div  class="container">

   <div id="block1">
    </div>

   <div id="block2">
   </div>
   </div>

<style>

.container{

   border-style: solid;
   border-color: black;
   padding: 30px;
   margin-top: 20%;

}
#block1{
   padding: 20px;
   background-color: yellow;
   position:absolute;
   left: 30%;
   top: 20%;
   width: 20px;
   height: 20px;
}

#block2{
   padding: 20px;
   background-color: red;
   position: relative;
   left: 30%;
   top:20%;
   width: 20px;
   height: 20px;
}

</style>

</body>
</html>
```



Static -> static is used as a default positioning mode by browser .

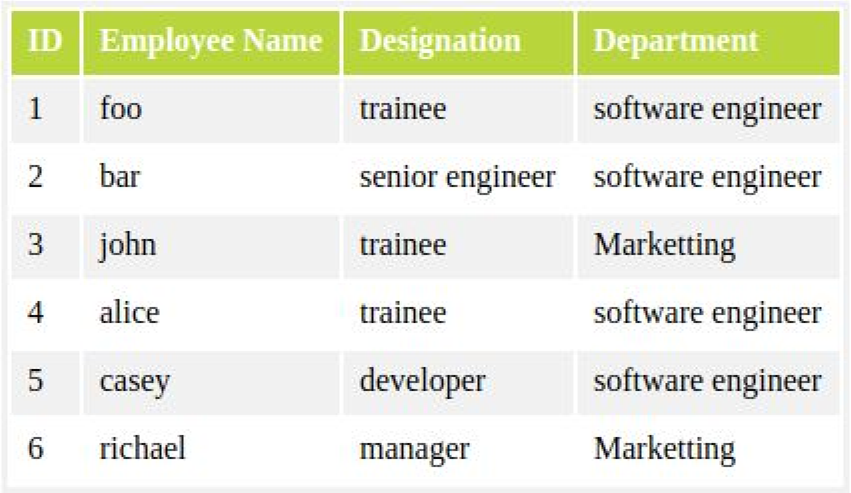
Q.5 Write the HTML code to create a table in which there are 4 columns(ID , Employee Name, Designation, Department) and at least 6 rows. Also do some styling to it.

Ans->

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <meta http-equiv="X-UA-Compatible" content="ie=edge">
    <title>Exercise</title>
</head>
<body>

    <table>

        <tr>
            <th>ID</th>
            <th>Employee Name</th>
            <th>Designation</th>
            <th>Department</th>

        </tr>

        <tr>
```

```
           <td>1 </td>
           <td> foo </td>
           <td> trainee</td>
           <td> software engineer </td>
       </tr>
       <tr>
           <td>2</td>
           <td> bar </td>
           <td> senior engineer</td>
           <td> software engineer </td>
       </tr>

       <tr>
           <td>3</td>
           <td> john </td>
           <td> trainee</td>
           <td> Marketting </td>
       </tr>
       <tr>
           <td>4 </td>
           <td> alice </td>
           <td> trainee</td>
           <td> software engineer</td>
       </tr>
       <tr>
               <td>5 </td>
               <td> casey </td>
               <td> developer</td>
               <td> software engineer </td>
           </tr>

           <tr>
                   <td>6 </td>
                   <td> richael </td>
                   <td> manager</td>
                   <td> Marketting</td>
               </tr>

 </table>



</body>
```

```
<style>
   th {
 background-color:#c0ca33;
 color: white;
}
th, td {
 text-align: left;
 padding: 8px;
}
tr:nth-child(even){background-color: #f2f2f2}

table{
   border-style: solid;
   border-color: #f2f2f2;
}


</style>

</body>
</html>
```



ID	Employee Name	Designation	Department
1	foo	trainee	software engineer
2	bar	senior engineer	software engineer
3	john	trainee	Marketting
4	alice	trainee	software engineer
5	casey	developer	software engineer
6	richael	manager	Marketting

Q.6 **Why do we use meta tags?**

Ans-> meta tags are used for various purposes ->

1. Meta keyword tag is used to define keywords of the search engine however, modern search engine generally ignore meta keyword tag.
2. Meta description tag is used to summarize the content of a webpage its used by search engine to help navigate users by showing on summary on SERP.
3. Meta author is used to define the author of the web page.
4. Meta viewport is used to make website responsive and define the initial zoom level of web page.

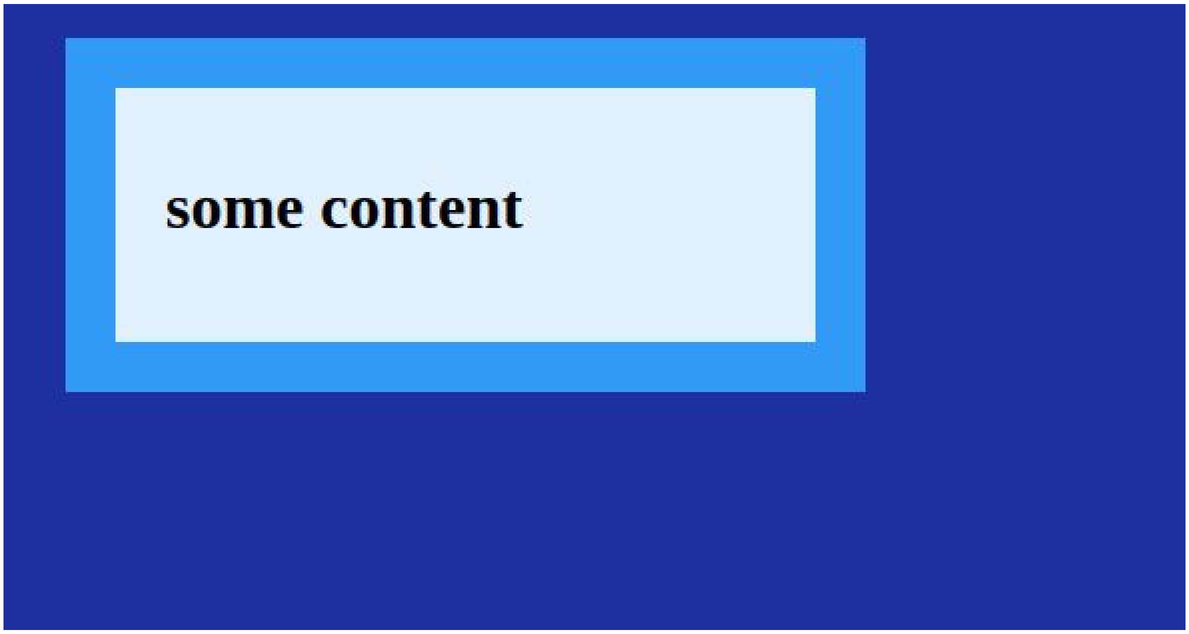
Q.7 Explain CSS box model ?

Ans- > CSS engine considers every element as box and contains following things.

- Content
- Padding
- Border
- Margin

An example would demonstrate better ->

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <meta http-equiv="X-UA-Compatible" content="ie=edge">
   <title>Exercise</title>
</head>
<body>
<div class="container">
<h1> some content </h1>

</div>


</body>

<style>
.container{
 background-color: #e3f2fd;
 width: 300px;
 border: 25px solid #42a5f5;
 padding: 25px;
 margin: 25px;
}
body{
   background-color: #0d47a1;
}

</style>

</body>
</html>
```



some content

- Content is written with black color
- Aqua color is padding
- Dark blue color is border
- Purple color is outer body and our content has some margin on it .

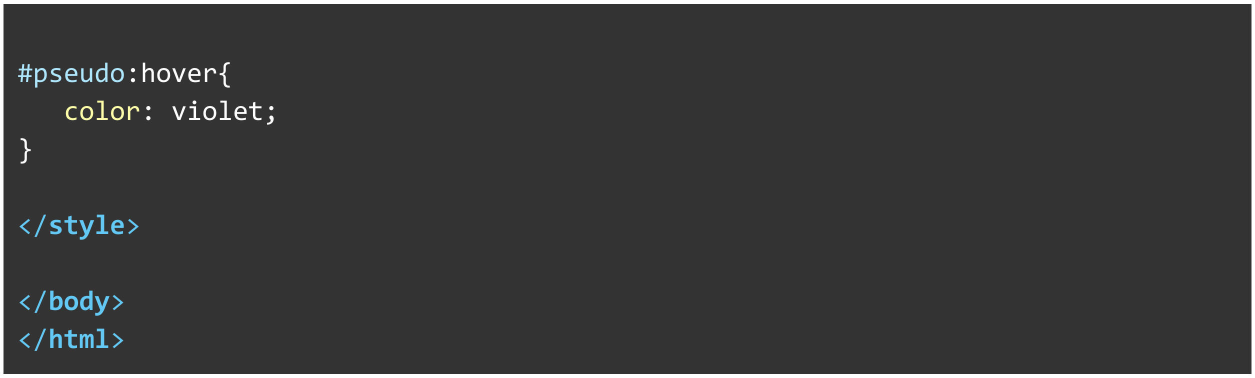
Q.8 What are the different types of CSS Selectors?
Ans -> css supports various selectors.

1. Id selector -> id selector is used to identify an element uniquely its referred in css with # symbol.
2. Class selector -> class selector is used to apply css properties on group of elements its referred in css with period (.) selector.
3. Tag selector -> Tag selector is used to apply css properties on a specific tag its referred in css without any special symbol .

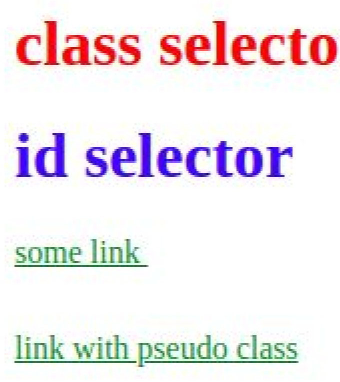
4. Pseudo classes -> pseudo selectors are used to apply properties on special state of elements for example a:visited etc.

For example ->

```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <meta http-equiv="X-UA-Compatible" content="ie=edge">
   <title>Exercise</title>
</head>
<body>
<div class="class-selector">

<h1>class selector</h1>

</div>

<div id="id-selector">
<h1> id selector</h1>
</div>

<a href="some link">some link </a>
<br/>
<br/>
<br/>
<a href="linkwithpseudo" id=pseudo >link with pseudo class</a>


</body>

<style>
#id-selector{
   color: blue;

}
.class-selector{
   color: red;
}
a{
   color: green;
}
```



```
#pseudo:hover{
   color: violet;
}

</style>

</body>
</html>
```



class selector

id selector

some link

link with pseudo class

Q.9 Define Doctype.
Ans-> doctype associate a normal sgml page with document type definition its defined usually as the very first line of the document and tell the parser, how to parse the document, modern browser does not need a doctype declaration however to conforms with html5 specification it should be included.

Q. 10. Explain 5 HTML5 semantic tags.

Ans -> HTML5 defined various semantic tags to increase the readability of code for example

1. header-> Header is generally used to define the header part of a web page .
2. Footer -> footer is generally used to define the last part of the web page .
3. Section -> In HTML5 we use section instead of div to define various section of web page.
4. Aside -> The things that are in side of a webpage for example navigation menu are defined inside aside tag.
5. nav-> set of navigation link are contained inside nav

Q.11 and Q 12 are separately posted in github repository