Exercise for Introduction to HTML/CSS

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

The css property **display: inline-block** brought a new way to create side by side boxes that collapse and wrap properly depending on the available space in the containing element. It makes layouts that were previously accomplished with floats easier to create. No need to clear floats anymore.

Compared to **display: inline**, the major difference is that **inline-block** allows to set a width and height on the element. Also, with display: inline, top and bottom margins & paddings are not respected, and with display: inline-block they are.

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

display:none means that the tag will not appear on the page at all. There will be no space allocated for it between the other tags.

visibility:hidden means that unlike display:none, the tag is not visible, but space is allocated for it on the page. The tag is rendered, it just isn't seen on the page.

For example:
- test | Any Text | test
  Output:
  test | | test

- test | Any Text | test
  Output:
  test | | test

3. Explain the clear and float properties.

The float property:

The float property is used for positioning and formatting content e.g. let an image float left to the text in a container.

The float property can have one of the following values:

- left - The element floats to the left of its container
- right- The element floats to the right of its container
- none - The element does not float (will be displayed just where it occurs in the text). This is default
- inherit - The element inherits the float value of its parent

For example:

img {

  float: right;

}

The clear Property:

The clear property specifies what elements can float beside the cleared element and on which side.

The clear property can have one of the following values:

- none - Allows floating elements on both sides. This is default
- left - No floating elements allowed on the left side
- right- No floating elements allowed on the right side
- both - No floating elements allowed on either the left or the right side
- inherit - The element inherits the clear value of its parent

The most common way to use the clear property is after you have used a float property on an element.

For example:

```
div {
  clear: left;
}
```

4. Explain difference between absolute, relative,fixed and static.

CSS position property:
The position property specifies the type of positioning method used for an element.

position: absolute;

An element with position: absolute; is positioned relative to the nearest positioned ancestor (instead of positioned relative to the viewport, like fixed).
However; if an absolute positioned element has no positioned ancestors, it uses the document body, and moves along with page scrolling.

position: relative;

An element with position: relative; is positioned relative to its normal position. Setting the top, right, bottom, and left properties of a relatively-positioned element will cause it to be adjusted away from its normal position. Other content will not be adjusted to fit into any gap left by the element.

position: fixed;

An element with position: fixed; is positioned relative to the viewport, which means it always stays in the same place even if the page is scrolled. The top, right, bottom, and left properties are used to position the element.
A fixed element does not leave a gap in the page where it would normally have been located.

position: static;

HTML elements are positioned static by default.

Static positioned elements are not affected by the top, bottom, left, and right properties.

An element with position: static; is not positioned in any special way; it is always positioned according to the normal flow of the page:

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.

Table.html

```html
<!DOCTYPE html>
<html>
<head>
   <title>Table</title>
   <link rel="stylesheet" type="text/css" href="tablestyle.css">
</head>
<body>
   <table class="table1">
       <h1>Table</h1>
       <tr>
           <th>ID</th>
           <th>Employee Name</th>
           <th>Designation</th>
           <th>Department</th>
       </tr>
       <tr>
           <td>1</td>
           <td>Joyesh</td>
           <td>Front End Developer</td>
           <td>Production</td>
       </tr>
```

```html
<tr>
    <td>2</td>
    <td>Mudit</td>
    <td>Front End Developer</td>
    <td>Production</td>
</tr>

<tr>
    <td>3</td>
    <td>Kamal</td>
    <td>Front End Developer</td>
    <td>Production</td>
</tr>

<tr>
    <td>4</td>
    <td>Rohit</td>
    <td>Java Developer</td>
    <td>Production</td>
</tr>

<tr>
    <td>5</td>
    <td>Mohit</td>
    <td>Accountant</td>
    <td>Finance</td>
</tr>

<tr>
    <td>6</td>
    <td>Sukirti</td>
    <td>ACM</td>
```

```html
            <td>Production</td>
        </tr>
    </table>
</body>
</html>
```

Tablestyle.css

```css
table{
    width: 100%;
}

table, th, td{
    border: 1px solid black;
    border-collapse: collapse;
}

th, td{
    padding: 15px;
    text-align: left;
}

th{
    background-color: #48A1EC;
    color: white;
}

h1{
    text-align: center;
    color: #0182EF;
    margin: 20px auto;
}
```
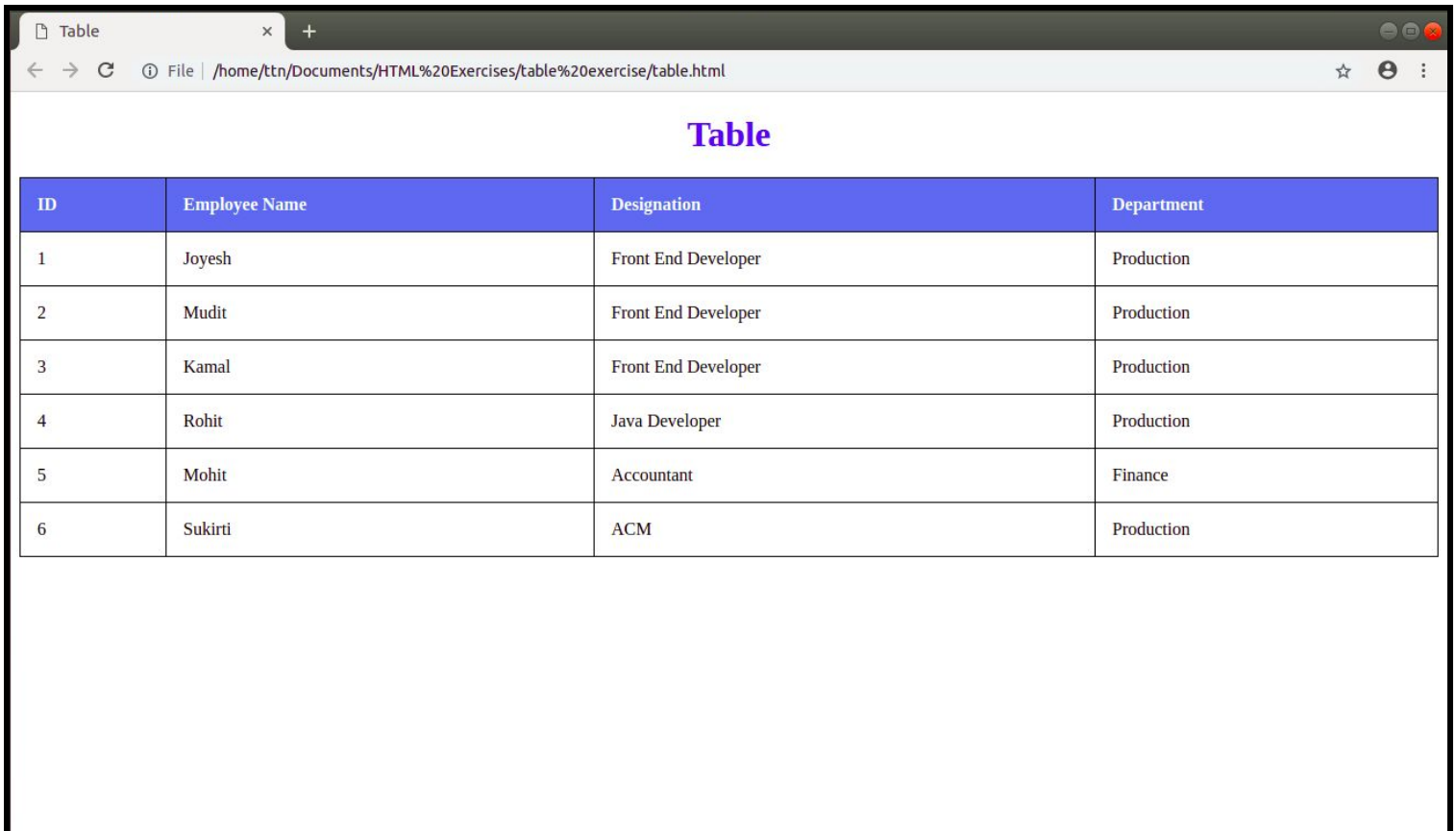
```css
.table1{
    margin: 20px auto;
}
```

Output:

ID	Employee Name	Designation	Department
1	Joyesh	Front End Developer	Production
2	Mudit	Front End Developer	Production
3	Kamal	Front End Developer	Production
4	Rohit	Java Developer	Production
5	Mohit	Accountant	Finance
6	Sukirti	ACM	Production

6. Why do we use meta tags?

The <meta> tag provides metadata about the HTML document. Metadata will not be displayed on the page, but will be machine parsable.

Meta elements are typically used to specify page description, keywords, author of the document, last modified, and other metadata.

The metadata can be used by browsers (how to display content or reload page), search engines (keywords), or other web services.

HTML5 introduced a method to take control over the viewport (the user's visible area of a web page).

For example:
<meta name="author" content="Joyesh">

7. Explain box model.

The CSS box model is essentially a box that wraps around every HTML element. It consists of: margins, borders, padding, and the actual content.

- **Margin** - Clears an area outside the border. The margin is transparent
- **Border** - A border that goes around the padding and content
- **Padding** - Clears an area around the content. The padding is transparent
- **Content** - The content of the box, where text and images appear.

The box model allows us to add a border around elements, and to define space between elements.

For example:
```
div {
  width: 300px;
  border: 25px solid green;
  padding: 25px;
  margin: 25px;
}
```

8. What are the different types of CSS Selectors?

CSS Selector:
CSS selectors are used to select the content you want to style. Selectors are the part of CSS rule set. CSS selectors select HTML elements according to its id, class, type, attribute etc.

There are several different types of selectors in CSS:

1. CSS Element Selector
2. CSS Id Selector
3. CSS Class Selector

For example:

CSS Element Selector:

```
p{

        text-align: center;

        color: blue;

}
```

CSS Id Selector:

```
#para1 {

   text-align: center;

   color: blue;

}
```

CSS Class Selector:

```
.center {

   text-align: center;

   color: blue;

}
```

9. Define Doctype.

The <!DOCTYPE> declaration must be the very first thing in your HTML document, before the <html> tag.

The <!DOCTYPE> declaration is not an HTML tag, it is an instruction to the web browser about what version of HTML the page is written in.

For example:

```
<!DOCTYPE html>
<html>
<head>
<title>Title of the document</title>
</head>

<body>
The content of the document......
</body>
</html>
```

10. Explain 5 HTML5 semantic tags.

● **HTML5 <section> Element:**

The <section> element defines a section in a document. A section is grouping of content, typically with a heading. A home page could normally be split into sections for introduction, content, and contact information.

For example:

```
<section>

  <h1>TTN<h1>
```

<p>To The New…….</p>

</section>

- **HTML5 <article> Element**

The <article> element specifies independent, self-contained content. An article should make sense on its own, and it should be possible to read it independently from the rest of the web site. It can be used for a forum post, blog post or a newspaper article.

For example:

<article>

  <h1>TTN<h1>

  <p>To The New…….</p>

</article>

- **HTML5 <header> Element**

The <header> element specifies a header for a document or section. The <header> element should be used as a container for introductory content. You can have several <header> elements in one document.

For example:

<html>

<body>

<header>

  <h1>TTN<h1>

  <p>To The New </p>

</header>

<p>A digital technology company</p>

</body>

</html>

- **HTML5 <footer> Element**

The <footer> element specifies a footer for a document or section. A <footer> element should contain information about its containing element. A footer typically contains the author of the document, copyright information, links to terms of use, contact information, etc. You may have several <footer> elements in one document.

For example:

<footer>

  <p>Posted by: Joyesh Malik</p>

  <p>Contact information:

  joyesh.malik@tothenew.com.</p>

</footer>

- **HTML5 <nav> Element**

The <nav> element defines a set of navigation links.

For example:

<nav>

  HTML |

  CSS |

```
    <a href="/js/">JavaScript</a>

</nav>
```

11. Create HTML for web-page.jpg

Web-page.html

```
<!DOCTYPE html>

<html>

<head>

  <title>Web Page</title>

  <link rel="stylesheet" type="text/css" href="style.css">

</head>

<body>

<div id="outer">

  <div id="inner">

    <div>

        <header>

            <h1 id="hh">To the New</h2>

            <nav>

                <ul>

    <li><a href="#">TEXT LINK</a>
```

```html
                </li>

                <li><a href="#">TEXT LINK</a>

                </li>

                <li><a href="#">TEXT LINK</a>

                </li>

                <li><a href="#">TEXT LINK</a>

                </li>

        </ul>

                        </nav>

                </header>

                </div>


                <div id="innerdiv2">

                        <div id=nested1>

                                <p id="nestedpara">960 × 360px</p>

                        </div>

                        <div id="nested2">

                                                <p                    id="nestedpara2"><span
id="pp">VESTIBULUMACCUMSAN    EGESTIBULUM    EU    JUSTO
CONVALLIS AUGUE  ESTAS AENEAN ELIT INTESQUE SED. </span><br>
```

FACILISPEDE ESTIBULUM NULLA ORNA NISL VELIT ELIT AC ALIQUAT NON TINCIDUNT NAMJUSTO CRAS URNA.

```
        </p>

    </div>

    <br> <br>


    <h3>LATEST FROM THE GALLERY</h3>

    <hr>


    <br>

    <div id="parent">

    <div class="card1">

        <div id="card1div1">

            <p id="p1">215 × 315px</p>

        </div>

        <div id="card1div2">

            <p id="p2">IMAGE CAPTION HERE</p>

        </div>

    </div>
```

```html
<div class="card1">

	<div id="card1div1">

		<p id="p1">215 × 315px</p>

	</div>

	<div id="card1div2">

		<p id="p2">IMAGE CAPTION HERE</p>

	</div>

</div>




<div class="card1">

	<div id="card1div1">

		<p id="p1">215 × 315px</p>

	</div>

	<div id="card1div2">

		<p id="p2">IMAGE CAPTION HERE</p>

	</div>

</div>

<div class="card1">
```

```html
            <div id="card1div1">

                <p id="p1">215 × 315px</p>

            </div>

            <div id="card1div2">

                <p id="p2">IMAGE CAPTION HERE</p>

            </div>

        </div>

    </div>

    </div>

    <footer>

    <div id="foot">

            <p id="pleft">Copyright © 2009 - 2019 - All Rights Reserved - To
the new</p>

            <p id="pright">Web layout by To the new</p>

    </div>

    </footer>

    </div>

</div>

</body>

</html>
```

Style.css

```css
body{

    background-color: #424242 ;

}

#outer{

                position:fixed;

                top:0;

                left:0;

                width:100%;

                height:100%;

                overflow: auto;

        }

#inner{

                width: 90%;

                height: 30%;

                margin: -20px auto;

                position: relative;

                background: #3C3C3C;

                border-width: 0.5px;

                border-style: outset;
```

```css
        border-color: #565656;

    }


#innerdiv2{

        height: 1000px;

        width: 1154px;

        background-color: white;

        padding: 1px;

            border-radius: 2px;

            float: left;

            margin-top: 6.5%;

}


#nested1{

        width: 88%;

        height: 33%;

        margin-top: 2%;

        margin-left: 6%;

        position: relative;

        background: #2E2D2D;
```

```css
        border-width: 1px;

}


#nested2{

        width: 88%;

        height: 8%;

        margin-top: 3%;

        margin-left: 6%;

        position: relative;

        background: #EBE9E9;

        border-width: 1px;

}


#nested3{

        width: 88%;

        height: 8%;

        margin-top: 3%;

        margin-left: 6%;

        position: relative;

        background: ;
```

```css
        border-width: 1px;

}

#nestedpara{

    font-size: 34px;

    color: white;

    text-align: center;

    vertical-align: middle;

    line-height: 320px;


}


#nestedpara2{

    font-size: 17.5px;

    color: #6A6767;

    padding-top: 20px;

    padding-left: 20px;

}


 #pp{

    word-spacing: 7px;
```

```css
}


#hh{

    color: #D0D0D0;

    padding-left: 71px;

    padding-top: 10px;

}


hr{

    color: #999999;

    font-weight: bold;

    margin-left: 6%;

    margin-right: 6%;

}


h3{

    padding-left: 70px;

    color: #999999;

    font-weight: bold;

}
```

```css
nav {

        position: absolute;

        left: 55px;

        height: 40px;

        background-color: black;

        width:    1014px;

        text-align: center;

        margin-left: 16px;

}

ul {

  list-style-type: none;

  margin: 0;

  padding: 0;

  overflow: hidden;

  background-color: #333;

}


li {

  float: left;

}
```

```css
li a {

  display: block;

  color: #D0D0D0;

  text-align: center;

  padding: 14px 16px;

  text-decoration: none;

}


.card1{

  width: 200px;

  height: 330px;

  padding: 50px;

  border: 1px solid black;

  box-sizing: border-box;

  border-color: #919191;

  margin-left: 70px;

  float: left;

}
```

```css
#card1div1{

  width: 190px;

  height: 288px;

  padding: 1px;

  background-color: #2E2D2D;

  box-sizing: border-box;

  margin-left: -46px;

  margin-top: -45px;

}


#card1div2{

   width: 190px;

  height: 30px;

  padding: 1px;

  background-color: #DADADA;

  box-sizing: border-box;

   margin-left: -46px;

}


#p1{
```

```css
    font-size: 25px;

    color: white;

    text-align: center;

    vertical-align: middle;

    line-height: 250px;

}


#p2{

    font-size: 15px;

    color: #656565;

    text-align: center;

    vertical-align: middle;

    margin-top: 4px;

}


#parent{

    overflow-y: hidden;

}


#foot{
```

```css
        height: 50px;

        width: 1154px;

        background-color: #2E2D2D;

        padding: 1px;

            border-radius: 2px;

            float: left;

            margin-top: -50px;

}


#pleft{

    float: left;

    font-size: 15px;

    color: #D0D0D0;

    margin-left: 6%;

}


#pright{

    float: right;

    font-size: 15px;

    color: #D0D0D0;
```
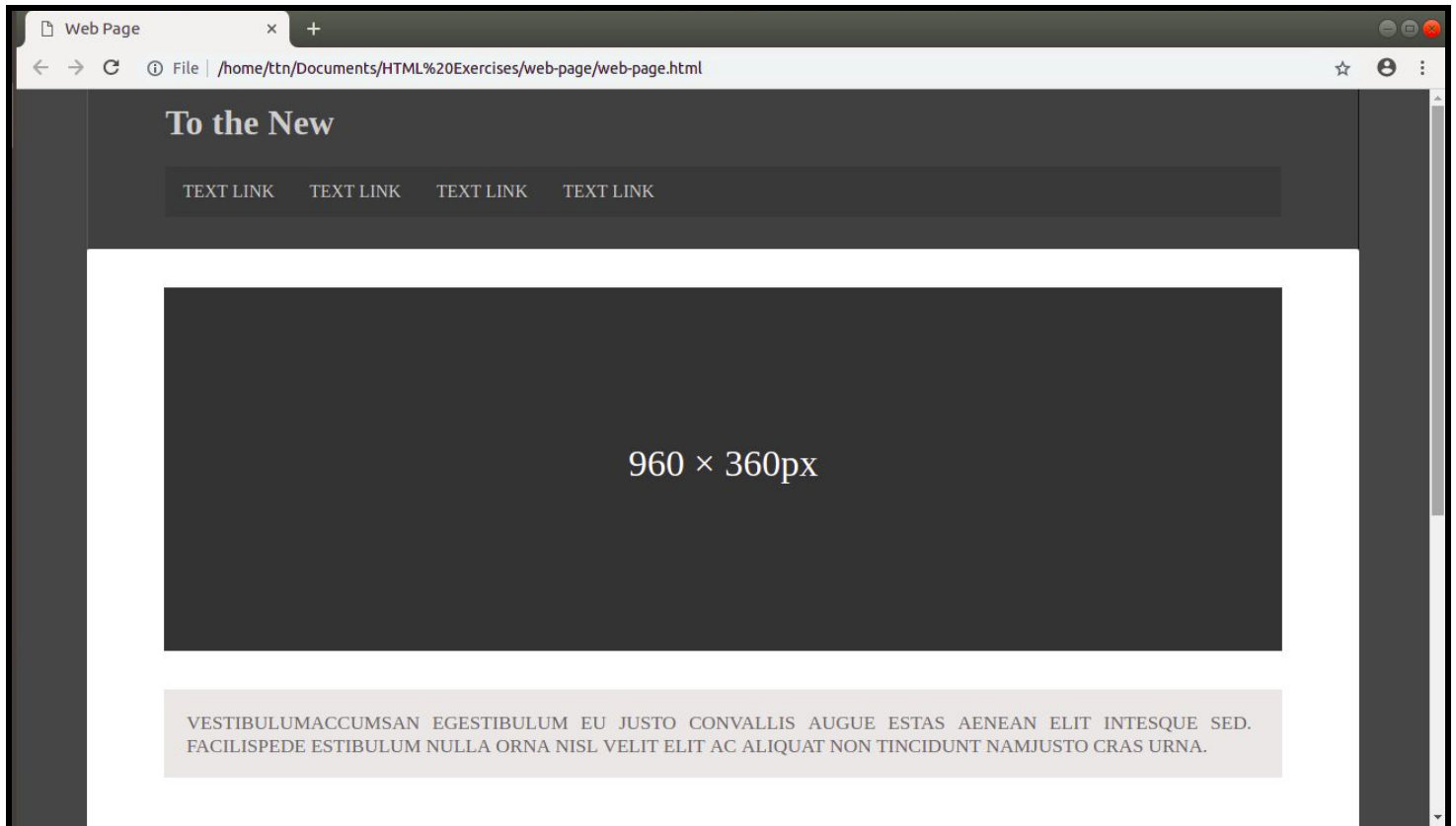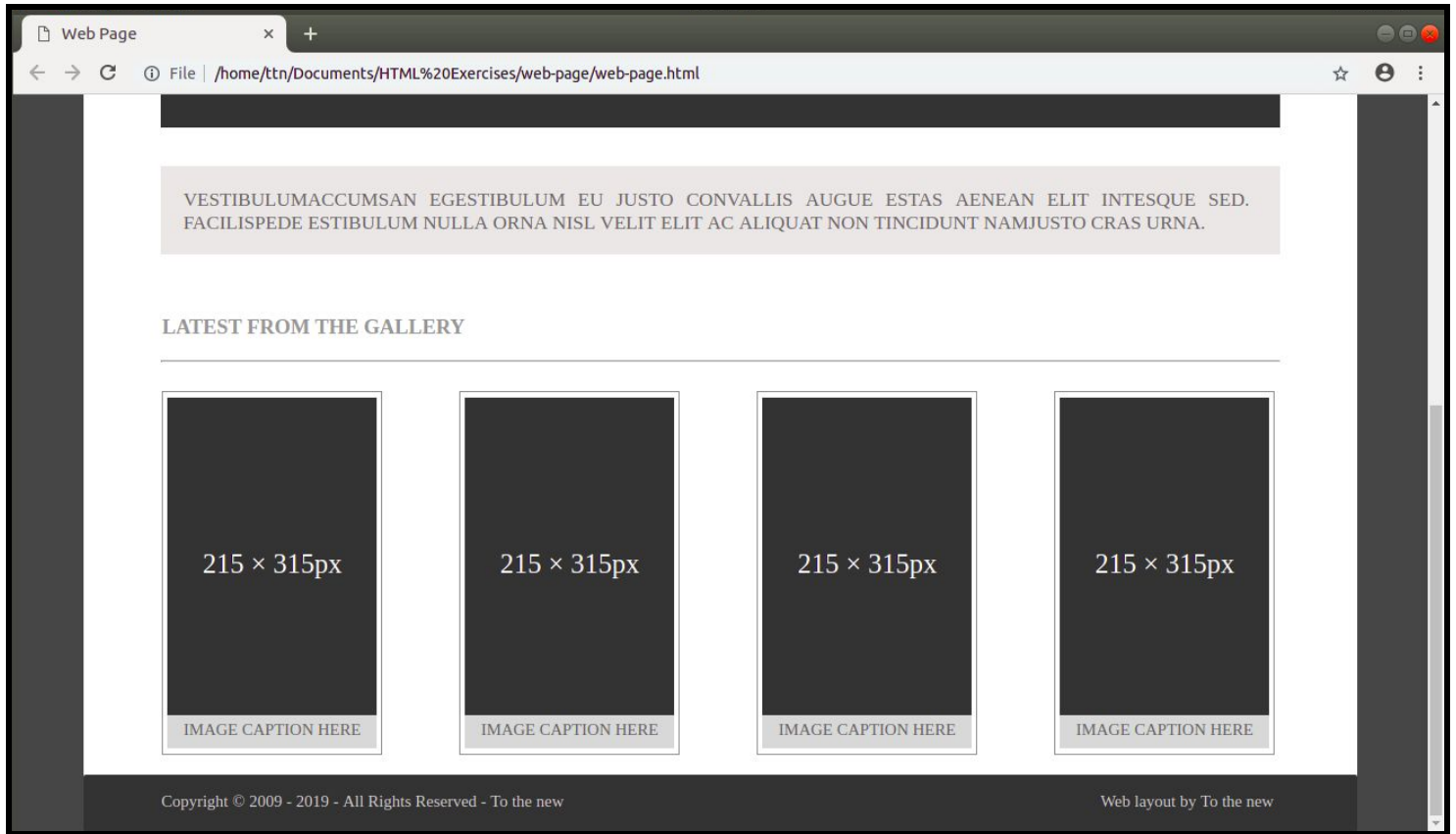
margin-right: 6.5%;

}

Output:

VESTIBULUMACCUMSAN EGESTIBULUM EU JUSTO CONVALLIS AUGUE ESTAS AENEAN ELIT INTESQUE SED. FACILISPEDE ESTIBULUM NULLA ORNA NISL VELIT ELIT AC ALIQUAT NON TINCIDUNT NAMJUSTO CRAS URNA.

LATEST FROM THE GALLERY

215 × 315px

215 × 315px

215 × 315px

215 × 315px

IMAGE CAPTION HERE

IMAGE CAPTION HERE

IMAGE CAPTION HERE

IMAGE CAPTION HERE

Copyright © 2009 - 2019 - All Rights Reserved - To the new

Web layout by To the new

12. Create HTML for form.png

Bug.html

<!DOCTYPE html>

<html>

<head>

   <title>Bug Form</title>

   <link rel="stylesheet" type="text/css" href="style.css">

</head>

```html
<body>

    <header>

        <nav>

                <div id="logo"><a href="#">TO THE NEW</a></div>

                <div id = navbar>

                        <ul>

                                <li><a href="#">Home</a></li>

                                <li><a href="#">Quick Help</a></li>

                        </ul>

                </div>

        </nav>

    </header>


    <div class="container">

        <form action="#" method="get">

                <div class="form-head">Bug Report</div>

                <div class="form-body">

                        <div class="title">

                                Title:* <br>

                                <input type="text" name="title" required="required">
```

```html
</div>

<div class="Description">

    Description:* <br>

    <textarea></textarea>

</div>

<div class="dropdown">

    Operating System: <br>

    <select name="os">

        <option value="Window">Windows XP</option>

        <option value="linux">Linux</option>

        <option value="mac">Mac</option>

    </select>

</div>

<div class="dropdown">

    Product:* <br>

    <select name="product">

        <option value="formoid">Formoid</option>

        <option value="test">test</option>

        <option value="test">test</option>

    </select>
```

```html
                                        </div>

                            <div class="version">

                                Version:* <br>

                                        <input      type="text"      name="Version"
required="required">

                            </div>

                            <div class="licence">

                                Licence:

                                <br />

                                    <input     type="radio"     name="licence"
value="free">Free

                                    <input     type="radio"     name="licence"
value="Business" id ="licence-center">Business

                            </div>

                            <div class="dropdown">

                                Severity:<br>

                                <select name="Severity">

                                        <option value="Critical">Critical</option>

                                        <option value="test">test</option>

                                        <option value="test">test</option>

                                </select>
```

```html
            </div>

            <div class="Attachments">

                Attachments: <br />

                    <input    type="text"    name="Attachments"
placeholder="No file selected"> <button type="button">Choose File</button>

            </div>

        </div>

        <div class="form-footer">

            <button type="submit" id="footer-button">Send</button>

        </div>

    </form>

  </div>

</body>

</html>
```

Style.css

```css
body{

   margin: 0;

   padding: 0 125px;

}
```

```css
header {

    border-bottom: 1px solid gray;

}


#navbar{

    float: right;

    padding: 5px 0;

}


#logo{

    float: left;

    padding:20px 0;

    color: #009997;

    font-size: 20px;

}


#logo a{

    text-decoration: none;

    color:#009997;
```

```css
    font-size: 20px;

}


header::after{

    content: '';

    display: table;

    clear: both;

}


li{

    display: inline-block;

    padding-left: 20px;

}


li a{

    color: #009997;

    text-decoration: none;

}


li a:hover{
```

```css
    color:blue;

    font-size: 20px;

}


.container{

    margin: 10px 250px;

    border: 1px solid gray;

    border-radius: 5px;

}


.form-head{

    margin: 0;

    background-color: #a5b1ae;

    font-size: 25px;

    padding: 15px;

    color:white;

    font-weight: bold;

}


.form-footer{
```

```css
    margin: 0;

    background-color: #c1d6d2;

}


#footer-button{

    font-size: 15px;

    float: right;

    color: white;

    background-color: #00c89e;

    padding: 10px;

    margin: 10px 20px;

    border-radius: 5px;

    font-weight: bold;

    border: 1px solid #00c89e;

}


.form-footer::after{

    content: '';

    display: table;

    clear: both;
```

```css
}

.form-body{

    padding: 10px 20px;

    font-size: 15px;

}


.title input{

    width: 100%;

    height: 20px;

    margin-bottom: 10px;

    border-radius: 4px;

    border: 1px solid gray;

}


.description{


}


.Description textarea{
```

```css
    width: 100%;

    height: 70px;

    margin-bottom: 10px;

    border-radius: 4px;

    border: 1px solid gray;

}


.dropdown select{

    width: 100%;

    height: 35px;

    margin-bottom: 10px;

    border-radius: 4px;

    border: 1px solid #00c89e;

    background-color: #00c89e;

    color: #ffffff;

    font-size: 15px;

    font-weight: bold;

}
```

```css
.version input{

    margin-bottom: 10px;

    width: 20%;

    height: 20px;

    border-radius: 4px;

    border: 1px solid gray;

}


.licence {

    margin-bottom: 10px;

}


.Attachments input{

    height: 20px;

    width: 75%;

    border-top-left-radius: 4px;

    border-bottom-left-radius: 4px;

    border: 1px solid gray;

    padding: 4px;

}
```

```css
.Attachments button{

    height: 30px;

    width: 22%;

    margin-left: -4px;

    margin-top: -10px;

    border-top-right-radius: 4px;

    border-bottom-right-radius: 4px;

    border: 1px solid gray;

    color: #ffffff;

    font-weight: bold;

    background-color: gray;

}


#licence-center{

    margin-left: 40%;

}
```

Output: