

Practicing mobile-first development in wireframes Creating three website wireframes for these dimensions: smartphone, tablet, and desktop, by applying the mobile-first concept.

Aim:

To Create 3 views of a web page for smartphone, tablet, and desktop, by applying the mobile-first concept.

Program:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>WEEK-1</title>
  <style>
    *{margin:0;
      border:0;
      box-sizing: border-box}
    h1,nav{margin:0;
      border:0;
      padding:15px}
    h1{background-color: aquamarine;}
    nav{background-color: black;}
    a{padding-left: 200px;
      color:white;
      font-weight: 700;
      text-decoration: none;}
    h1,h2,h3{text-align: center;}
    div{padding:20px;}
    section{display:flex;}
    img,video{margin: 3px;}
    @media screen and (max-width:786px){
      section{display:block;
        float:none;}
      img,video{width:95%;}
      a{padding-left: 45px;}
    }
    @media screen and (max-width:1024px) and (min-width:789px){
      section{display:block;
```

```

        float:none;}
        img,video{width:48%;}
        a{padding-left: 90px; }
    }
</style>

</head>

<body>
    <header>
        <h1>About Department</h1>
        <nav>
            <a href="#">HOME</a>
            <a href="#">ABOUT</a>
            <a href="#">COURCES</a>
            <a href="#">HELP</a>
            <a href="#">CONTACT</a>
        </nav>
    </header>
    <br><br>
    <h2>Discription</h2>

    <Section class="sec1">
        <div class="div1">
            <h3>CSE</h3>
            Lorem ipsum dolor sit amet consectetur adipisicing elit. Doloribus eum, repellendus
            adipisci voluptate, veritatis, explicabo iusto provident eaque necessitatibus facilis vel. Unde
            dicta voluptate, quod neque modi accusamus quae quasi excepturi cumque aspernatur,
            exercitationem eius minus expedita dolor necessitatibus eos adipisci temporibus, velit ipsa
            qui. Doloremque voluptatum doloribus maiores debitis.
        </div>
        <div class="div1">
            <h3>IT</h3>
            Lorem ipsum dolor sit amet consectetur adipisicing elit. Doloribus eum, repellendus
            adipisci voluptate, veritatis, explicabo iusto provident eaque necessitatibus facilis vel. Unde
            dicta voluptate, quod neque modi accusamus quae quasi excepturi cumque aspernatur,
            exercitationem eius minus expedita dolor necessitatibus eos adipisci temporibus, velit ipsa
            qui. Doloremque voluptatum doloribus maiores debitis.
        </div>
    </div>

```

<h3>AI&ML</h3>

Lorem ipsum dolor sit amet consectetur adipisicing elit. Doloribus eum, repellendus adipisci voluptate, veritatis, explicabo iusto provident eaque necessitatibus facilis vel. Unde dicta voluptate, quod neque modi accusamus quae quasi excepturi cumque aspernatur, exercitationem eius minus expedita dolor necessitatibus eos adipisci temporibus, velit ipsa qui. Doloremque voluptatum doloribus maiores debitis.

</div>

</Section>

<h2>Images</h2>

<section>

</section>

<h2>Videos</h2>

<section>

<video src="#" controls width="33%"></video>

<video src="#" controls width="33%"></video>

<video src="#" controls width="33%"></video>

</section>

</body>

</html>

OUTPUT:

Desktop

About Department

HOMEABOUTCOURCESHELPCONTACT

Discription

CSE

IT

AI&ML

Images

Videos

About Department

HOMEABOUTCOURCESHELPCONTACT

Discription

CSE

IT

AI&ML

Images

Videos

About Department

HOMEABOUTCOURCESHELPCONTACT

Discription

CSE

IT

AI&ML

Images

Result:

Creating 3 views of a web page for smartphone, tablet, and desktop, by applying the mobile-first concept was successful.

Creating the layout design for wireframes

Aim:

To Create the layout design for wireframes.

OUTPUT:

Desktop

The desktop wireframe shows a layout for a user profile page. It features a 'Basic information' section on the left with a placeholder for a profile picture, a 'Name' field with a dropdown menu, and a list of attributes (Age, Occupation, Location, More info). Below this is a 'Bio' section with a paragraph of placeholder text. To the right is a 'Personality' section with a series of sliders for various traits: Introvert/Extrovert, Analytical/Creative, Busy/Time rich, Messy/Organized, Independent/Team player, Passive/Active, and Safe/Risky. At the bottom of the 'Basic information' section are three buttons labeled 'Link 1', 'Link 2', and 'Link 3'.

Tablet

The tablet wireframe layout is a condensed version of the desktop version. The 'Basic information' section is at the top left, followed by the 'Bio' section. The 'Personality' section is positioned to the right of the 'Bio' section. The layout uses a grid system to organize the elements, with the 'Personality' section being narrower than on the desktop.

Mobile

The mobile wireframe layout is the most compact version. The 'Basic information' section is at the top left, followed by the 'Bio' section. The 'Personality' section is positioned to the right of the 'Bio' section. The layout uses a grid system to organize the elements, with the 'Personality' section being the narrowest of the three versions.

Result:

Creating the layout design for wireframes, Was successful.

Using Foundation4 Grid to structure the website Using the Foundation4 Grid, perform the following recommended steps:

1. Start coding the HTML script.
2. Identify the rows in the structure and add a row class to the existent element or to a new div tag.

Aim:

To Create a Grid view.

Program:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Grid</title>
  <style>
    *{
      margin:0;
      border:0;
      box-sizing: border-box;
    }
    h1,nav{margin:0;
      border:0;
      padding:10px}
    h1{background-color: aquamarine;}
    nav{background-color: black;}
    a{ padding-left: 200px;
      color:white;
      font-weight: 700;
      text-decoration: none;}
    h1,h2,h3{
      text-align: center;}
    div{padding:20px;
      border:2px solid black;
      margin:3px;}
    .div1:hover{background-color: brown;
      box-shadow: 2px 2px 12px 10px;
      font-size: larger; }
```

```

        section{display:flex;}
    </style>
</head>
<body>
    <header>
        <h1>Grid View</h1>
        <nav>
            <a href="#">HOME</a>
            <a href="#">ABOUT</a>
            <a href="#">COURCES</a>
            <a href="#">HELP</a>
            <a href="#">CONTACT</a>
        </nav>
    </header>
    <br>
    <h2>Discription</h2>
    <Section class="sec1">
        <div class="div1" title="COMPUTER SCIENCE & ENGINEERING">
            <h3>CSE</h3>
            Lorem ipsum dolor sit amet consectetur adipisicing elit. Doloribus eum, repellendus adipisci voluptate, veritatis, explicabo iusto provident eaque necessitatibus facilis vel. Unde dicta voluptate, quod neque modi accusamus quae quasi excepturi cumque aspernatur, exercitationem eius minus expedita dolor necessitatibus eos adipisci temporibus, velit ipsa qui. Doloremque voluptatum doloribus maiores debitis.
        </div>
        <div>
            <h3>IT</h3>
            Lorem ipsum dolor sit amet consectetur adipisicing elit. Doloribus eum, repellendus adipisci voluptate, veritatis, explicabo iusto provident eaque necessitatibus facilis vel. Unde dicta voluptate, quod neque modi accusamus quae quasi excepturi cumque aspernatur, exercitationem eius minus expedita dolor necessitatibus eos adipisci temporibus, velit ipsa qui. Doloremque voluptatum doloribus maiores debitis.
        </div>
        <div>
            <h3>AI&ML</h3>
            Lorem ipsum dolor sit amet consectetur adipisicing elit. Doloribus eum, repellendus adipisci voluptate, veritatis, explicabo iusto provident eaque necessitatibus facilis vel. Unde dicta voluptate, quod neque modi accusamus quae quasi excepturi cumque aspernatur, exercitationem eius minus expedita dolor necessitatibus eos adipisci temporibus, velit ipsa qui. Doloremque voluptatum doloribus maiores debitis.

```

```
</div>
</body>
</html>
```

Output: Before

Grid View				
HOME	ABOUT	COURCES	HELP	CONTACT
Discription				
CSE Lorem ipsum dolor sit amet consectetur adipisicing elit. Doloribus eum, repellendus adipisci voluptate, veritatis, explicabo iusto provident eaque necessitatibus facilis vel. Unde dicta voluptate, quod neque modi accusamus quae quasi excepturi cumque aspernatur, exercitationem eius minus expedita dolor necessitatibus eos adipisci temporibus, velit ipsa qui. Doloremque voluptatum doloribus maiores debitis.	IT Lorem ipsum dolor sit amet consectetur adipisicing elit. Doloribus eum, repellendus adipisci voluptate, veritatis, explicabo iusto provident eaque necessitatibus facilis vel. Unde dicta voluptate, quod neque modi accusamus quae quasi excepturi cumque aspernatur, exercitationem eius minus expedita dolor necessitatibus eos adipisci temporibus, velit ipsa qui. Doloremque voluptatum doloribus maiores debitis.	AI&ML Lorem ipsum dolor sit amet consectetur adipisicing elit. Doloribus eum, repellendus adipisci voluptate, veritatis, explicabo iusto provident eaque necessitatibus facilis vel. Unde dicta voluptate, quod neque modi accusamus quae quasi excepturi cumque aspernatur, exercitationem eius minus expedita dolor necessitatibus eos adipisci temporibus, velit ipsa qui. Doloremque voluptatum doloribus maiores debitis.		

After

Grid View				
HOME	ABOUT	COURCES	HELP	CONTACT
Discription				
CSE Lorem ipsum dolor sit amet consectetur adipisicing elit. Doloribus eum, repellendus adipisci voluptate, veritatis, explicabo iusto provident eaque necessitatibus facilis vel. Unde dicta voluptate, quod neque modi accusamus quae quasi excepturi cumque aspernatur, exercitationem eius minus expedita dolor necessitatibus eos adipisci temporibus, velit ipsa qui. Doloremque voluptatum doloribus maiores debitis.	IT Lorem ipsum dolor sit amet consectetur adipisicing elit. Doloribus eum, repellendus adipisci voluptate, veritatis, explicabo iusto provident eaque necessitatibus facilis vel. Unde dicta voluptate, quod neque modi accusamus quae quasi excepturi cumque aspernatur, exercitationem eius minus expedita dolor necessitatibus eos adipisci temporibus, velit ipsa qui. Doloremque voluptatum doloribus maiores debitis.	AI&ML Lorem ipsum dolor sit amet consectetur adipisicing elit. Doloribus eum, repellendus adipisci voluptate, veritatis, explicabo iusto provident eaque necessitatibus facilis vel. Unde dicta voluptate, quod neque modi accusamus quae quasi excepturi cumque aspernatur, exercitationem eius minus expedita dolor necessitatibus eos adipisci temporibus, velit ipsa qui. Doloremque voluptatum doloribus maiores debitis.		

Result:

Creating a Grid view, Was successful.

Customize the menu using the toggle menu solution

Aim:

To Create a create toggle menu

Program:

```
<!DOCTYPE html>
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
  <style>
    *{
      padding: 0;
      margin: 0;
      box-sizing: border-box;
      text-decoration: none;
    }
    .navBar{
      background-color: black;
    }
    .navList{
      display:none;
      list-style: none;
      padding: 10px;
    }
    .navList li{
      padding-bottom: 10px;
    }
    .navList li a{
      color:white;
      font-weight: 500;
      padding:20px;
    }
    .active{
      display: block;
    }
  #menuBtn {
    display: flex;
    flex-direction: column;
```

```

        justify-content: center;
        align-items: center;
        width: 50px;
        height: 50px;
        margin-right: 20px;
        margin-left: auto;
        background-color: transparent;
        border: none;
        cursor: pointer;
    }
    .bar {
        width: 30px;
        height: 4px;
        background-color: #fff;
        border-radius: 30px;
        margin: 2px;
    }
    @media screen and (min-width: 1100px){
        #menuBtn{
            display: none;
        }
        .navList{
            display: flex;
            justify-content: space-around;
            align-items: center;
        }
    }
}

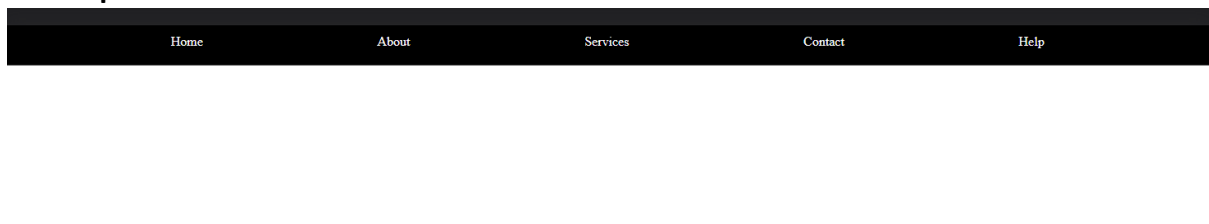
</style>
</head>
<body>
<!-- NavBar -->
<nav class="navBar">
    <button id="menuBtn" onclick="toggleMenu()">
        <div class="bar"></div>
        <div class="bar"></div>
        <div class="bar"></div>
    </button>
    <ul class="navList">
        <li><a href="#">Home</a></li>

```

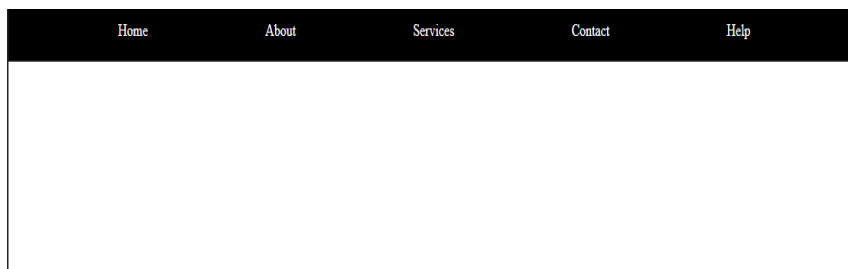
```
        <li><a href="#">About</a></li>
        <li><a href="#">Services</a></li>
        <li><a href="#">Contact</a></li>
        <li><a href="#">Help</a></li>
    </ul>
</nav>
<script>
    function toggleMenu(){
        var navList = document.querySelector('.navList');
        navList.classList.toggle('active');
    }
</script>
</body>
```

Output:

Desktop



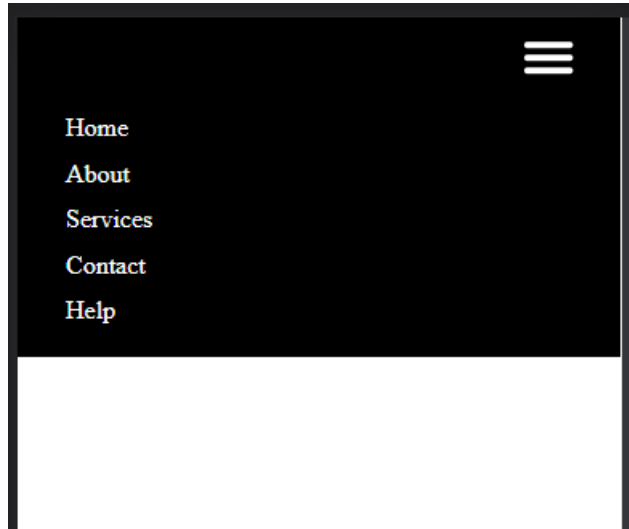
Tablet



Mobile
Before



After



Result:

Creating a toggle menu, Was successful.

Creating different image versions for featured homepage images

Aim:

To Create different image versions for featured homepage images

Program:

```
<!DOCTYPE html>
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Featured Homepage Images</title>
  <style>
    .featured-image {
      width: 50%;
      height: auto;
      display: block;
      margin: 0 auto;
    }
  </style>
</head>
<body>
  <h1>Featured Homepage Images</h1>
  <picture>
    <source srcset="images/Mobile.jpg" media="(max-width: 767px)">
    <source srcset="images/Tablet.jpg" media="(min-width: 768px) and (max-width: 1199px)">
    <source srcset="images/Desktop.jpg" media="(min-width: 1200px)">
    
  </picture>
</body>
</html>
```

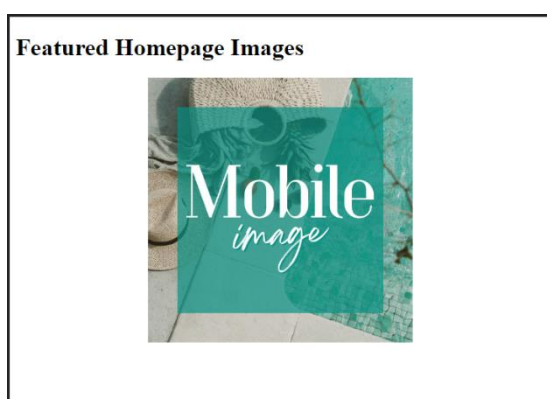
Output:
Desktop



Tablet



Mobile



Result:

Creating different image versions for featured homepage images, Was successful.
Creating an image slider using the Swiper plugin

Aim:

To Create an image slider using the Swiper plugin

Program:

```
<!DOCTYPE html>
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Image Slider</title>
  <link rel="stylesheet" href="https://unpkg.com/swiper/swiper-bundle.min.css">
  <style>
    *{
      text-align: center;
    }
    .swiper-container {
      width: 100vw;
      height: auto;
    }
    .swiper-slide {
      width: 100vw;
      height: 100vh;
      text-align: center;
      font-size: 18px;
      background: #fff;
      display: flex;
      justify-content: center;
      align-items: center;
    }
    .swiper-slide img {
      width: 100vw;
      height: auto;
      object-fit: cover;
      margin: 0px auto;
    }
  </style>
</head>
<body>
  <h1>Image Slider</h1>
  <div class="swiper-container">
    <div class="swiper-wrapper">
```

```

<div class="swiper-slide"></div>
<div class="swiper-slide"></div>
<div class="swiper-slide"></div>
<!-- Add more slides as needed -->
</div>
<div class="swiper-pagination"></div>
</div>

<script src="https://unpkg.com/swiper/swiper-bundle.min.js"></script>
<script>
  var swiper = new Swiper('.swiper-container', {
    loop: true,
    autoplay: {
      delay: 3000,
    },
    pagination: {
      el: '.swiper-pagination',
      clickable: true,
    },
  });
</script>
</body>
</html>

```

Output:

Image Slider

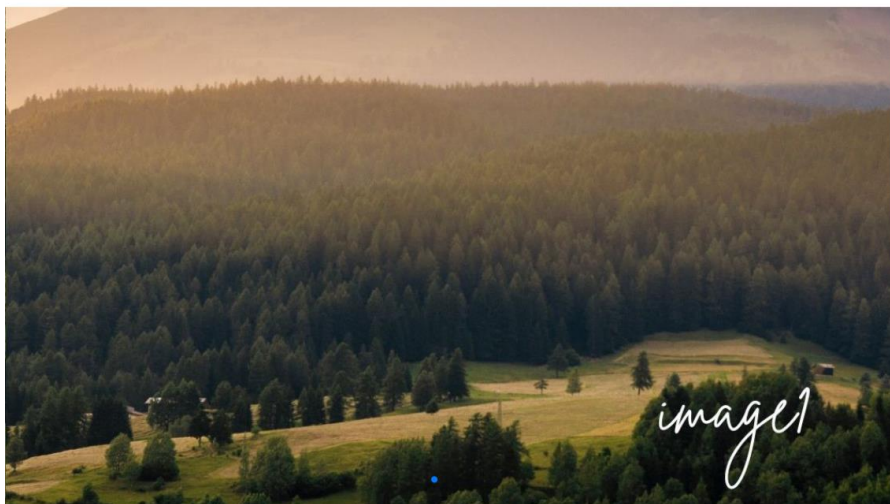
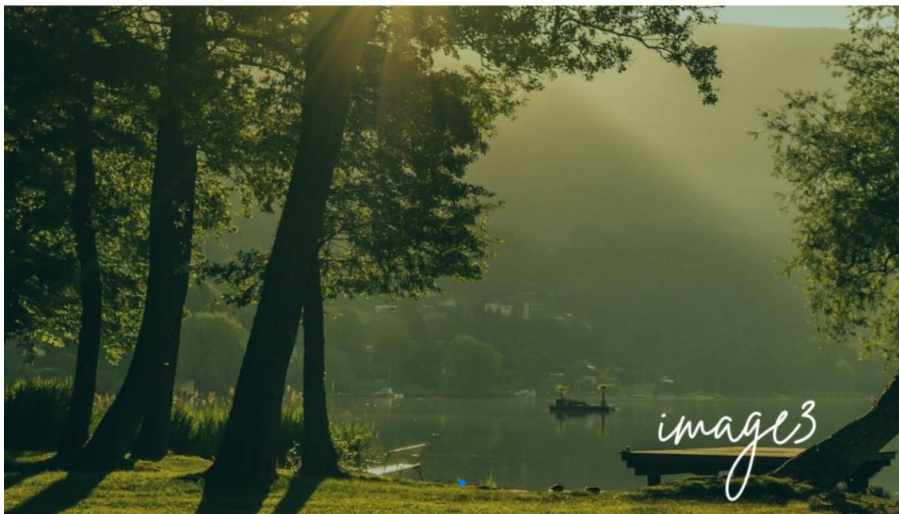


Image Slider



Image Slider



Result:

Creating different image versions for featured homepage images, Was successful.

Creating a responsive table of prices using the FooTable jQuery plugin

Aim:

To Create a responsive table of prices using the FooTable jQuery plugin

Program:

```
<!DOCTYPE html>
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Responsive Table of Prices</title>
  <link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/footable/dist/footable.core.min.css">
  <style>
    /* Additional styling for the table (optional) */
    table {
      width: 100%;
      border-collapse: collapse;
    }
    th, td {
      padding: 8px;
      text-align: left;
      border-bottom: 1px solid #ddd;
    }
    th {
      background-color: #f2f2f2;
    }
  </style>
</head>
<body>
  <h1>Responsive Table of Prices</h1>
  <table id="priceTable">
    <thead>
      <tr>
        <th data-breakpoints="xs sm">Product</th>
        <th data-breakpoints="xs sm">Price</th>
        <th data-breakpoints="xs sm">Description</th>
      </tr>
    </thead>
    <tbody>
      <tr>
        <td>Smartphone</td>
```

```
        <td>$499.99</td>
        <td>High-performance smartphone with advanced features</td>
    </tr>
    <tr>
        <td>Laptop</td>
        <td>$999.99</td>
        <td>Powerful laptop for productivity and entertainment</td>
    </tr>
    <tr>
        <td>TV</td>
        <td>$799.99</td>
        <td>Large-screen smart TV with stunning picture quality</td>
    </tr>
    <tr>
        <td>Headphones</td>
        <td>$149.99</td>
        <td>Wireless headphones with noise cancellation</td>
    </tr>
    <tr>
        <td>Tablet</td>
        <td>$399.99</td>
        <td>Portable tablet for on-the-go productivity and entertainment</td>
    </tr>
    <tr>
        <td>Camera</td>
        <td>$599.99</td>
        <td>High-quality digital camera with advanced imaging capabilities</td>
    </tr>
</tbody>
</table>
```

```
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
<script src="https://cdn.jsdelivr.net/npm/footable/dist/footable.min.js"></script>
<script>
    $(document).ready(function() {
        $('#priceTable').footable();
    });
</script>
</body>
</html>
```

Output:

Responsive Table of Prices		
Product	Price	Description
Smartphone	\$499.99	High-performance smartphone with advanced features
Laptop	\$999.99	Powerful laptop for productivity and entertainment
TV	\$799.99	Large-screen smart TV with stunning picture quality
Headphones	\$149.99	Wireless headphones with noise cancellation
Tablet	\$399.99	Portable tablet for on-the-go productivity and entertainment
Camera	\$599.99	High-quality digital camera with advanced imaging capabilities

Result:

Creating a responsive table of prices using the FooTable jQuery plugin, Was successful.

Creating a contact form using the Ideal Forms framework

Aim:

To Create a contact form using the Ideal Forms framework

Program:

```
<!DOCTYPE html>
<html>
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<link href="https://fonts.googleapis.com/css?family=Raleway" rel="stylesheet">
<style>
* {
  box-sizing: border-box;
  border-radius: 10px;
}
body {
  background-color: #f1f1f1;
}
#regForm {
  background-color: #ffffff;
  margin: 100px auto;
  font-family: Raleway;
  padding: 40px;
  width: 70%;
  min-width: 300px;
}
h1 {
  text-align: center;
}
input {
  padding: 10px;
  width: 100%;
  font-size: 17px;
  font-family: Raleway;
  border: 1px solid #aaaaaa;
}
input.invalid {
  background-color: #ffdddd;
}
.tab {
  display: none;
}
```

```
button {
  background-color: plum;
  color: #ffffff;
  border: none;
  padding: 10px 20px;
  font-size: 17px;
  font-family: Raleway;
  cursor: pointer;
}
button:hover {
  opacity: 0.8;
}
#prevBtn {
  background-color: #bbbbbb;
}
.step {
  height: 15px;
  width: 15px;
  margin: 0 2px;
  background-color: #bbbbbb;
  border: none;
  border-radius: 50%;
  display: inline-block;
  opacity: 0.5;
}
select{
  width: 100%;
}
.step.active {
  opacity: 1;
}
textarea{
  height: 150px;
  width: 100%;
}
.step.finish {
  background-color: #04AA6D;
}
.mails{
  text-decoration: none;
```

```

}
</style>
<body>
<form id="regForm" action="/action_page.php">
  <h1>Student Details</h1>
  <div class="tab">
    <p><input placeholder="First name..." oninput="this.className = ''" name="fname"></p>
    <p><input placeholder="Last name..." oninput="this.className = ''" name="lname"></p>
    <p><input placeholder="Registered No..." oninput="this.className = ''" name="Rno"></p>
    <p><input type = "date" oninput="this.className = ''" name="Rno"></p>
    <p><select id="gender">
      <option value="man">Male</option>
      <option value="woman" selected>Female</option>
      <option value="another">Others</option>
    </select></p>
  </div>
  <div class="tab">Contact Info:
    <p><input id="emailinput" class="email" placeholder="E-mail..." oninput="this.className = ''"
name="email"></p>
    <p><input placeholder="Phone..." oninput="this.className = ''" name="phone"></p>
    <p><input placeholder="Zip" oninput="this.className = ''" name="Zip"></p>
    <p><textarea placeholder="Address..." oninput="this.className = ''"></textarea></p>
  </div>
  <div class="tab">Login Info:
    <p><input placeholder="Username..." oninput="this.className = ''" name="uname"></p>
    <p><input placeholder="Password..." oninput="this.className = ''" name="pword"
type="password"></p>
  </div>
  <div style="overflow:auto;">
    <div style="float:right;">
      <button type="button" id="prevBtn" onclick="nextPrev(-1)">Previous</button>
      <button type="button" id="nextBtn" onclick="nextPrev(1)">Next</button>
    </div>
  </div>
  <div style="text-align:center;margin-top:40px;">
    <span class="step"></span>
    <span class="step"></span>
    <span class="step"></span>
  </div>

```

```

</form>
<script>
function yahoomail(){
let x = document.getElementById("emailinput").innerHTML;
x += '@yahoo.com';
document.getElementById("emailinput").innerHTML = x;
}
function gmail(){
let y = document.getElementById("emailinput").innerHTML;
y += '@gmail.com';
document.getElementById("emailinput").innerHTML = y;
}
var currentTab = 0;
showTab(currentTab);
function showTab(n) {
var x = document.getElementsByClassName("tab");
x[n].style.display = "block";
if (n == 0) {
document.getElementById("prevBtn").style.display = "none";
} else {
document.getElementById("prevBtn").style.display = "inline";
}
if (n == (x.length - 1)) {
document.getElementById("nextBtn").innerHTML = "Submit";
} else {
document.getElementById("nextBtn").innerHTML = "Next";
}
fixStepIndicator(n)
}
function nextPrev(n) {
var x = document.getElementsByClassName("tab");
if (n == 1 && !validateForm()) return false;
x[currentTab].style.display = "none";
currentTab = currentTab + n;
if (currentTab >= x.length) {
document.getElementById("regForm").submit();
return false;
}
showTab(currentTab);
}

```



```
function validateForm() {  
    var x, y, i, valid = true;  
    x = document.getElementsByClassName("tab");  
    y = x[currentTab].getElementsByTagName("input");  
    for (i = 0; i < y.length; i++) {  
        if (y[i].value == "") {  
            y[i].className += " invalid";  
            valid = false;  
        }  
    }  
    if (valid) {  
        document.getElementsByClassName("step")[currentTab].className += " finish";  
    }  
    return valid;  
}  
function fixStepIndicator(n) {  
    var i, x = document.getElementsByClassName("step");  
    for (i = 0; i < x.length; i++) {  
        x[i].className = x[i].className.replace(" active", "");  
    }  
    x[n].className += " active";  
}  
</script>  
</body>  
</html>
```

Output:

Student Details

L

Harshavardhan

573

01-01-2003

Others

Next

Student Details

Contact Info:

abc@gmail.com

1234567890

517127

RV5, Chittoor

PreviousNext

Student Details

Login Info:

abc@gmail.com

.....

PreviousSubmit

Result:

Creating a contact form using the Ideal Forms framework, Was successful.

Installation of Bower- Grunt and Gulp

Aim:

To Install of Bower- Grunt and Gulp

Steps:

Installation of Bower:

1. Bower is a package manager that helps manage front-end dependencies. To install Bower, you need to have Node.js and npm (Node Package Manager) installed on your system.

a. Install Node.js: Visit the official Node.js website (<https://nodejs.org/>) and download the appropriate installer for your operating system. Follow the installation instructions provided.

b. Verify Node.js installation: Open a terminal or command prompt and run the following commands to verify the installation:

```
node -v npm
```

```
-v
```

You should see the versions of Node.js and npm printed in the terminal.

c. Install Bower: Once you have Node.js and npm installed, open a terminal or command prompt and run the following command to install Bower globally:

```
npm install -g bower
```

Installation of Grunt:

Grunt is a task runner that automates repetitive tasks in your development workflow.

a. Install Grunt's command-line interface (CLI): Open a terminal or command prompt and run

the following command to install Grunt's CLI globally:

```
npm install -g grunt-cli
```

b. Create a Grunt project: Create a new directory for your project and navigate into it using the terminal or command prompt. Run the following command to initialize a new Grunt project:

```
npm init
```

Follow the prompts to set up the project and create a package.json file.

c. Install Grunt and plugins: Once your project is set up, you can install Grunt and any desired Grunt plugins as project dependencies. For example, to install Grunt and the popular grunt-contrib-watch plugin, run the following command:

```
pm install grunt grunt-contrib-watch --save-dev
```

Now that you have Bower, Grunt, and Gulp installed, here are some simple exercises you can try:

Bower Exercise:

1. Create a new HTML file.

2. Initialize a Bower project using the following command:

```
bower init
```

3. Install a front-end library of your choice using Bower. For example, to install jQuery, run the

following command:

`bower install jquery --save`

4. Include the installed library in your HTML file and use it.

Grunt Exercise:

1. Create a new Grunt configuration file named `Gruntfile.js` in your project directory.

2. Configure Grunt tasks in the `Gruntfile.js`. For example, you can set up a task to concatenate and minify your CSS files using the `grunt-contrib-cssmin` plugin.

3. Run the Grunt task(s) using the `grunt` command in your terminal or command prompt.

Gulp Exercise:

1. Create a new Gulp configuration file named `gulpfile.js` in your project directory.

2. Configure Gulp tasks in the `gulpfile.js`. For example, you can set up a task to compile Sass files

into CSS using the `gulp-sass` plugin.

3. Run the Gulp task(s) using the `gulp` command in your terminal or command prompt.

These exercises will give you a starting point to explore the capabilities of Bower, Grunt, and Gulp. You can explore their documentation and try out more advanced tasks as you become familiar with the tools.

Result:

Installation of Bower- Grunt and Gulp, Was successful.

Building a Landing Page with Skeleton

Aim:

To Build a Landing Page with a Skeleton

Program:

```
<!DOCTYPE html>
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Landing Page Layout</title>
  <style>
    * {
      box-sizing: border-box;
      margin: 0;
      padding: 0;
    }

    body {
      font-family: Arial, sans-serif;
      background-color: #f4f4f4;
      color: #333;
    }

    .container {
      max-width: 1200px;
      margin: 0 auto; padding: 5px;
    }

    header {
      background-color: #333;
      padding: 10px;
      text-align: center;
      color: #fff;
      border-radius: 10px;
    }

    nav {
      margin-top: 10px;
      text-align: center;
    }
```

```
nav ul {  
  list-style: none;  
}
```

```
nav ul li {  
  display: inline-block;  
  margin-right: 10px;  
}
```

```
nav ul li a {  
  color: #fff;  
  text-decoration: none;  
  padding: 5px 10px;  
  border-radius: 5px;  
}
```

```
.content-wrapper {  
  display: flex;  
  flex-wrap: wrap;  
  margin-top: 10px;  
}
```

```
.image-container {  
  flex: 1;  
  display: flex;  
  justify-content: center;  
  flex-wrap: wrap;  
}
```

```
.image-container img {  
  width: 200px;  
  height: 150px;  
  object-fit: cover;  
  margin: 5px;  
}
```

```
.video-container {  
  flex: 1;  
  display: flex;  
  justify-content: center;
```

```
        align-items: center;
    }

    .video-container video {
        max-width: 100%;
        height: auto;
    }

    .sidebar {
        flex: 1;
        background-color: #eee;
        padding: 20px;
        border-radius: 10px;
        margin: 5px;
    }

    footer {
        background-color: #333;
        color: #fff;
        padding: 10px;
        text-align: center;
        border-radius: 10px;
        margin-top: 10px;
    }
</style>
</head>
<body>
    <div class="container">
        <header>
            <h1>Landing Page</h1>
            <nav>
                <ul>
                    <li><a href="#">Home</a></li>
                    <li><a href="#">About</a></li>
                    <li><a href="#">Services</a></li>
                    <li><a href="#">Contact</a></li>
                </ul>
            </nav>
        </header>
```

```
<div class="content-wrapper">
  <div class="image-container">
    
    
    
  </div>

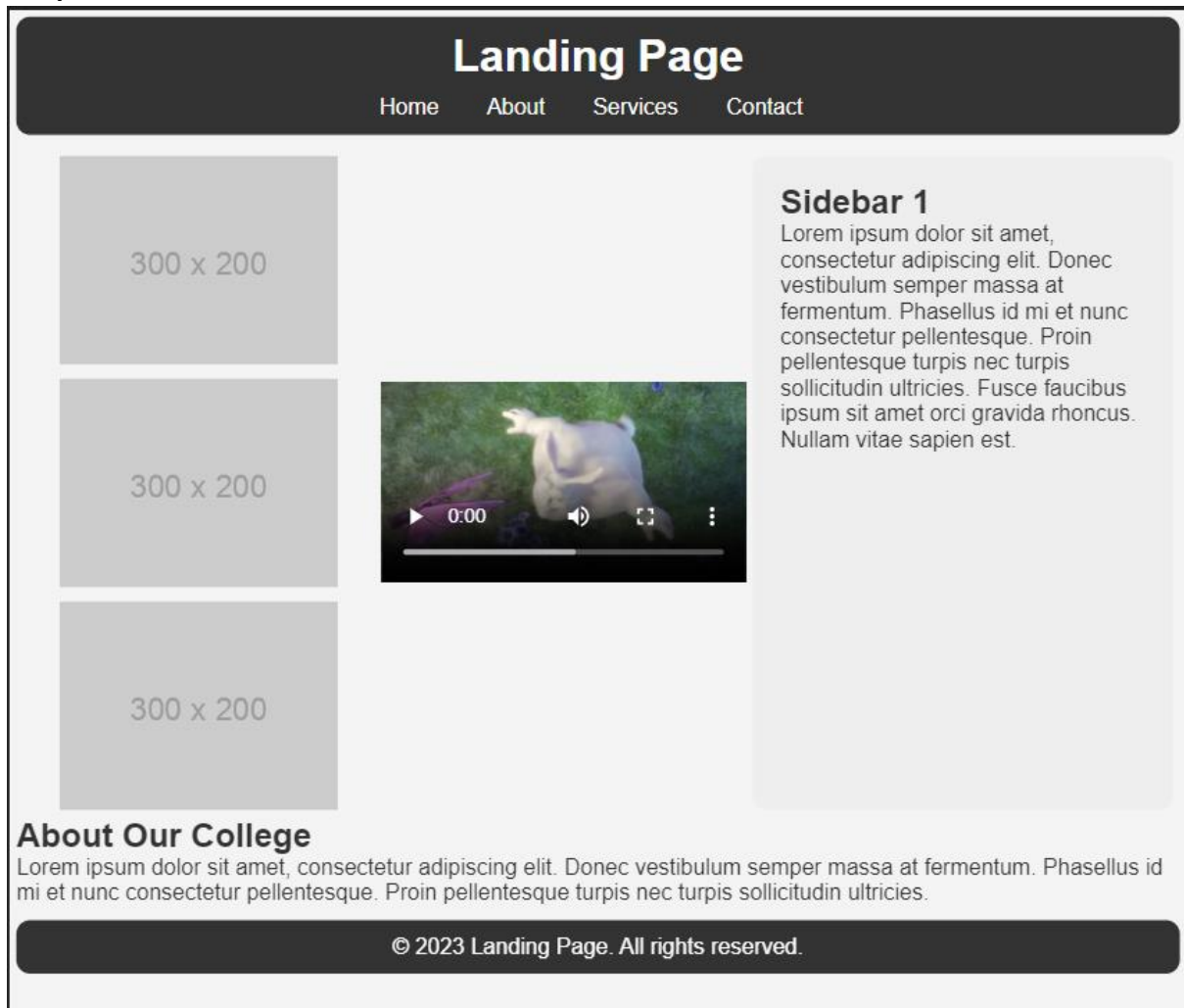
  <div class="video-container">
    <video src="https://www.w3schools.com/html/mov_bbb.mp4" controls></video>
  </div>

  <div class="sidebar">
    <h2>Sidebar 1</h2>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec vestibulum
semper massa at fermentum.
    Phasellus id mi et nunc consectetur pellentesque. Proin pellentesque turpis nec
turpis sollicitudin ultricies.
    Fusce faucibus ipsum sit amet orci gravida rhoncus. Nullam vitae sapien est.</p>
  </div>
</div>

<div>
  <h2>About Our College</h2>
  <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec vestibulum semper
massa at fermentum.
  Phasellus id mi et nunc consectetur pellentesque. Proin pellentesque turpis nec turpis
sollicitudin ultricies.
  </p>
</div>

<footer>
  <p>&copy; 2023 Landing Page. All rights reserved.</p>
</footer>
</div>
</body>
</html>
```


Output:



Result:

Building a Landing Page with Skeleton, Was successful.

Building a Product Page with Milligram

Aim:

To Build a Product Page with Milligram

Program:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
  <link rel="stylesheet"
href="https://fonts.googleapis.com/css?family=Roboto:300,300italic,700,700italic">
  <link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/normalize/8.0.1/normalize.css">
  <link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/milligram/1.4.1/milligram.css">
  <style>
    *{
      box-sizing: border-box;
      padding: 10px;
      margin: 5px;
    }
  </style>
</head>
<body>
<h3>Basic To-do List</h3>
<input type="text" placeholder="What do you need to do? Please don't go over 5 items..."
id="nameField"><br>
<a class="button" id="add" href="#">Add</a>
<p id='result'></p>
<a class="button" id="clear" href="#">Clear List</a>
<script>
  var count=0;
$('#add').click( function () {
  $('#result').append($('#input').val()+'<br>');
  $('#input').val('');
  count++;
  if (count>5) alert('Whoa, way too much to do!');
```

```
});  
$('#clear').click( function () {  
    count=0;  
    $('#result').html("");  
});  
</script>  
</body>  
</html>
```

Output:

Basic To-do List

ADD

CLEAR LIST

Result:

Building a Product Page with Milligram, Was successful.

Creating a 4x3 Responsive Grid Layout-Susy

Aim:

To Create a 4x3 Responsive Grid Layout-Susy

Program:

```
<!DOCTYPE html>
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>4x3 Responsive Grid Layout with Susy</title>
  <style>
    .grid {
      display:grid;
      grid-template-columns: repeat(auto-fit,minmax(200px,1fr));
    }
    .grid-item{
      display: flex;
      align-items: center;
      justify-content: center;
      border: 2px solid black;
      border-radius: 10px;
      height: 150px;
      background-color: plum;
      margin: 5px;
    }
  </style>
</head>
<body>
  <div class="container">
    <h1>4x3 Responsive Grid Layout with Susy</h1>
    <div class="grid">
      <div class="grid-item">Grid Item 1</div>
      <div class="grid-item">Grid Item 2</div>
      <div class="grid-item">Grid Item 3</div>
      <div class="grid-item">Grid Item 4</div>
      <div class="grid-item">Grid Item 5</div>
      <div class="grid-item">Grid Item 6</div>
      <div class="grid-item">Grid Item 7</div>
      <div class="grid-item">Grid Item 8</div>
      <div class="grid-item">Grid Item 9</div>
      <div class="grid-item">Grid Item 10</div>
```

```

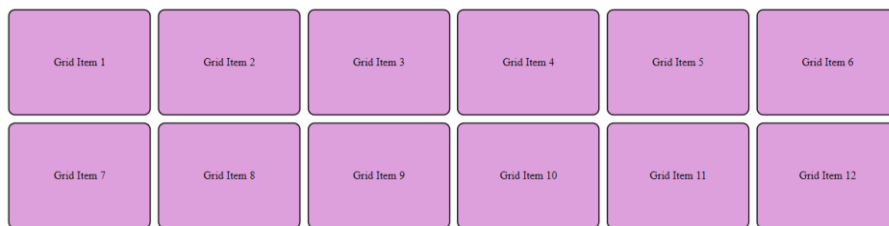
        <div class="grid-item">Grid Item 11</div>
        <div class="grid-item">Grid Item 12</div>
    </div>
</div>
</body>
</html>

```

Output:

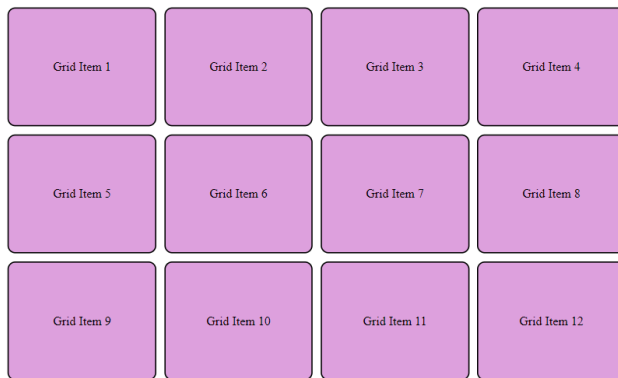
Desktop

4x3 Responsive Grid Layout with Susy



Tablet

4x3 Responsive Grid Layout with Susy



Mobile

4x3 Responsive Grid Layout with Susy



Result:

Creating a 4x3 Responsive Grid Layout-Susy, Was successful.

Building an Intuitive Web Page Using MDL

Aim:

To Build an Intuitive Web Page Using MDL

Program: <!DOCTYPE html>

<html>

<head>

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Intuitive Web Page with MDL</title>

<link rel="stylesheet" href="https://code.getmdl.io/1.3.0/material.indigo-pink.min.css">

<style>

/* Additional styling for the web page (optional) */

.container {

max-width: 960px;

margin: 0 auto;

padding: 20px;

display: flex;

flex-wrap: wrap;

justify-content: space-between;

}

h1 {

font-size: 36px;

margin-bottom: 20px;

}

p {

font-size: 16px;

margin-bottom: 10px;

}

.mdl-card {

width: calc(50% - 10px);

margin-bottom: 20px;

}

.mdl-card__title {

color: #fff;

background-color: #3F51B5;

}

.mdl-card__title h2 {

font-size: 24px;

font-weight: 500;

margin: 0;

padding: 20px;

```

    }
    .mdl-card__supporting-text {
        color: #444;
        padding: 16px;
    }
    .details {
        font-size: 14px;
        margin-top: 10px;
    }
</style>
</head>
<body>
    <div class="container">
        <h1>Welcome to the Intuitive Web Page</h1>
        <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum sed sem
sodales, placerat
nunc id, finibus mauris.</p>
        <div class="mdl-card mdl-shadow--2dp">
            <div class="mdl-card__title">
                <h2>Card 1</h2>
            </div>
            <div class="mdl-card__supporting-text">
                <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum ullamcorper
quam id est mattis, ut pulvinar felis volutpat.</p>
                <div class="details">
                    <p>Details:</p>
                    <ul>
                        <li>Feature 1</li>
                        <li>Feature 2</li>
                        <li>Feature 3</li>
                    </ul>
                </div>
            </div>
        </div>
        <div class="mdl-card mdl-shadow--2dp">
            <div class="mdl-card__title">
                <h2>Card 2</h2>
            </div>
            <div class="mdl-card__supporting-text">

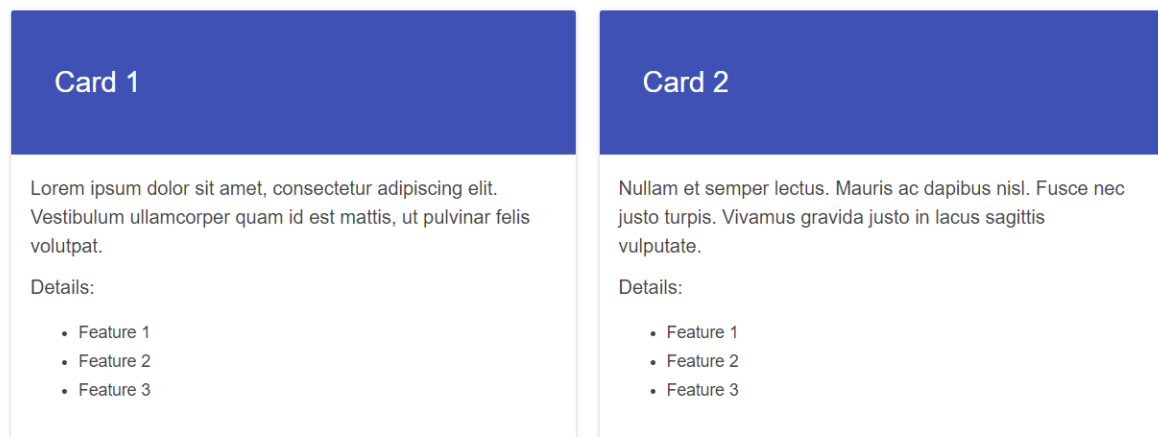
```

```
<p>Nullam et semper lectus. Mauris ac dapibus nisl. Fusce nec justo turpis.  
Vivamus gravida justo in lacus sagittis vulputate.</p>  
<div class="details">  
  <p>Details:</p>  
  <ul>  
    <li>Feature 1</li>  
    <li>Feature 2</li>  
    <li>Feature 3</li>  
  </ul>  
</div>  
</div>  
</div>  
<script src="https://code.getmdl.io/1.3.0/material.min.js"></script>  
</body>  
</html>
```

Output:

Welcome to the Intuitive Web Page

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vestibulum sed sem sodales, placerat nunc id, finibus mauris.



Result:

Building an Intuitive Web Page Using MDL, Was successful.