

1.design web page using bootstrap and css..

html..

```
<!DOCTYPE html>
<html>
<head>
  <title>My Website</title>
  <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.css">
  <link rel="stylesheet" href="style.css">
</head>
<body>

  <nav class="navbar navbar-expand-lg navbar-dark bg-light">
    <a class="navbar-brand" href="#">My Website</a>
    <button class="navbar-toggler" type="button" data-toggle="collapse"
data-target="#navbarNav" aria-controls="navbarNav" aria-expanded="false"
aria-label="Toggle navigation">
      <span class="navbar-toggler-icon"></span>
    </button>
    <div class="collapse navbar-collapse" id="navbarNav">
      <ul class="navbar-nav">
        <li class="nav-item active">
          <a class="nav-link" href="#">Home</a>
        </li>
        <li class="nav-item">
          <a class="nav-link" href="#">About</a>
        </li>
        <li class="nav-item">
          <a class="nav-link" href="#">Contact</a>
        </li>
      </ul>
    </div>
  </nav>

  <div class="container-fluid">
    <div class="jumbotron">
      <h1>Welcome to My Website!</h1>
      <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod
tempor incididunt ut labore et dolore magna aliqua.</p>
      <button class="btn btn-primary">Learn More</button>
    </div>
    <div class="row">
      <div class="col-sm-6">
        <h2>About Us</h2>
        <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod
tempor incididunt ut labore et dolore magna aliqua.</p>
      </div>
      <div class="col-sm-6">
```

```

        <h2>Our Services</h2>
        <ul>
            <li>Web Design</li>
            <li>Graphic Design</li>
            <li>SEO</li>
        </ul>
    </div>
</div>
</div>

<footer class="bg-dark text-light text-center">
    <p>Copyright &copy; My Website 2023.
</footer>

<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"></script>
<script
src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/popper.min.js"></s
cript>
    <script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.min.js"></scri
pt>

</body>
</html>

```

css...

```

.jumbotron {
    background-color: #007bff;
    color: #fff;
}

.jumbotron h1 {
    font-size: 4rem;
}

.btn-primary {
    background-color: #007bff;
    border-color: #007bff;
}

.btn-primary:hover {
    background-color: #0069d9;
    border-color: #0062cc;
}

.col-sm-6 {
    padding: 2rem;
}

```

```
footer {  
  padding: 1rem;  
}
```

2. Design webpage (home and about) using html5.

home page...

```
<!DOCTYPE html>  
<html>  
<head>  
  <title>My Website</title>  
</head>  
<body>  
  <header>  
    <h1>Welcome to My Website!</h1>  
    <nav>  
      <ul>  
        <li><a href="index.html">Home</a></li>  
        <li><a href="about.html">About</a></li>  
      </ul>  
    </nav>  
  </header>  
  
  <main>  
    <section>  
      <h2>About Us</h2>  
      <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod  
tempor incididunt ut labore et dolore magna aliqua.</p>  
      <button>Learn More</button>  
    </section>  
  </main>  
  
  <footer>  
    <p>&copy; 2023 My Website. All Rights Reserved.</p>  
  </footer>  
</body>  
</html>
```

about page...

```
<!DOCTYPE html>  
<html>  
<head>  
  <title>About Us | My Website</title>  
</head>  
<body>
```

```

<header>
  <h1>About Us</h1>
  <nav>
    <ul>
      <li><a href="index.html">Home</a></li>
      <li><a href="about.html">About</a></li>
    </ul>
  </nav>
</header>

<main>
  <section>
    <h2>Our Story</h2>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod
tempor incididunt ut labore et dolore magna aliqua.</p>
  </section>
  <section>
    <h2>Our Team</h2>
    <ul>
      <li>John Doe - CEO</li>
      <li>Jane Doe - COO</li>
      <li>James Smith - CMO</li>
    </ul>
  </section>
</main>

<footer>
  <p>&copy; 2023 My Website. All Rights Reserved.</p>
</footer>
</body>
</html>

```

3.Design a webform using min 6 types of controls and apply validation using javascript.

```

<!DOCTYPE html>
<html>
<head>
  <title>Web Form</title>
</head>
<body>
  <form id="myForm" onsubmit="return validateForm()">
    <label for="name">Name:</label>
    <input type="text" id="name" name="name" required>

    <label for="email">Email:</label>
    <input type="email" id="email" name="email" required>

    <label for="country">Country:</label>

```

```

<select id="country" name="country" required>
  <option value="">Select a country</option>
  <option value="usa">USA</option>
  <option value="canada">Canada</option>
  <option value="mexico">Mexico</option>
</select>

<label>Gender:</label>
<label for="male">Male</label>
<input type="radio" id="male" name="gender" value="male" required>

<label for="female">Female</label>
<input type="radio" id="female" name="gender" value="female" required>

<label for="interests">Interests:</label>
<label for="sports">Sports</label>
<input type="checkbox" id="sports" name="interests[]" value="sports">

<label for="movies">Movies</label>
<input type="checkbox" id="movies" name="interests[]" value="movies">

<label for="books">Books</label>
<input type="checkbox" id="books" name="interests[]" value="books">

<input type="submit" value="Submit">
</form>

<script>
function validateForm() {
  var name = document.forms["myForm"]["name"].value;
  var email = document.forms["myForm"]["email"].value;
  var country = document.forms["myForm"]["country"].value;
  var gender = document.forms["myForm"]["gender"].value;
  var interests = document.forms["myForm"]["interests[]"].value;

  if (name == "") {
    alert("Name must be filled out");
    return false;
  }
  if (email == "") {
    alert("Email must be filled out");
    return false;
  }
  if (country == "") {
    alert("Please select a country");
    return false;
  }
  if (gender == "") {
    alert("Please select your gender");
    return false;
  }
}

```

```

    }
    if (interests.length == 0) {
        alert("Please select at least one interest");
        return false;
    }
    return true;
}
</script>
</body>
</html>

```

4 design home page for website using bootstrap.

```

<!DOCTYPE html>
<html>
<head>
    <title>My Website</title>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <!-- Add the bootstrap CSS -->
    <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min.css">
    <!-- Add custom CSS -->
    <link rel="stylesheet" href="styles.css">
</head>
<body>
    <nav class="navbar navbar-expand-lg navbar-light bg-light">
        <a class="navbar-brand" href="#">My Website</a>
        <button class="navbar-toggler" type="button" data-toggle="collapse"
data-target="#navbarNav" aria-controls="navbarNav" aria-expanded="false"
aria-label="Toggle navigation">
            <span class="navbar-toggler-icon"></span>
        </button>
        <div class="collapse navbar-collapse" id="navbarNav">
            <ul class="navbar-nav ml-auto">
                <li class="nav-item">
                    <a class="nav-link" href="#">Home</a>
                </li>
                <li class="nav-item">
                    <a class="nav-link" href="#">About Us</a>
                </li>
                <li class="nav-item">
                    <a class="nav-link" href="#">Contact</a>
                </li>
            </ul>
        </div>
    </nav>

    <div class="jumbotron">

```

```

        <h1 class="display-4">Welcome to My Website!</h1>
        <p class="lead">We offer a variety of services to meet your
needs.</p>
        <hr class="my-4">
        <p>Explore our website to learn more.</p>
        <a class="btn btn-primary btn-lg" href="#" role="button">Learn
More</a>
    </div>

    <div class="container">
        <div class="row">
            <div class="col-lg-4">
                <h2>Service 1</h2>
                <p>Our first service is designed to help you
achieve your goals.</p>
                <p><a class="btn btn-secondary" href="#"
role="button">Learn More &raquo;</a></p>
            </div>
            <div class="col-lg-4">
                <h2>Service 2</h2>
                <p>Our second service is perfect for those who need
assistance.</p>
                <p><a class="btn btn-secondary" href="#"
role="button">Learn More &raquo;</a></p>
            </div>
            <div class="col-lg-4">
                <h2>Service 3</h2>
                <p>Our third service is ideal for those who want to
improve their skills.</p>
                <p><a class="btn btn-secondary" href="#"
role="button">Learn More &raquo;</a></p>
            </div>
        </div>
    </div>

    <!-- Add the bootstrap Javascript -->
    <script src="https://code.jquery.com/jquery-3.2.1.slim.min.js"></script>
    <script
src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.12.9/umd/popper.min.js"></s
cript>
    <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/js/bootstrap.min.js"></script>
</body>
</html>

```

5 demonstrate the use use of json object in website.

JSON (JavaScript Object Notation) is a lightweight data interchange format that is easy to read and write. It is commonly used for transmitting data between a server

and web application. Here's an example of how to use a JSON object in a website:

Create a JSON object

javascript

Copy code

```
var person = {
  "name": "John Smith",
  "age": 30,
  "address": {
    "street": "123 Main St",
    "city": "Anytown",
    "state": "CA",
    "zip": "12345"
  }
};
```

Convert the JSON object to a string using the JSON.stringify() method

javascript

Copy code

```
var personString = JSON.stringify(person);
```

Store the string in a cookie or local storage

javascript

Copy code

```
localStorage.setItem("person", personString);
```

Retrieve the string from the cookie or local storage

javascript

Copy code

```
var personString = localStorage.getItem("person");
```

Convert the string back to a JSON object using the JSON.parse() method

javascript

Copy code

```
var person = JSON.parse(personString);
```

Use the JSON object in your website

javascript

Copy code

```
document.getElementById("name").innerHTML = person.name;
document.getElementById("age").innerHTML = person.age;
document.getElementById("address").innerHTML = person.address.street + ", " +
person.address.city + ", " + person.address.state + " " + person.address.zip;
```

In this example, we're creating a JSON object that represents a person with a name, age, and address. We're then using the JSON.stringify() method to convert the object to a string, storing the string in local storage, retrieving the string from local storage, and using the JSON.parse() method to convert the string back to a JSON object. Finally, we're using the values from the JSON object to update the content on our website.

6 design a web form using bootstrap.


```

<!DOCTYPE html>
<html lang="en">
  <head>
    <title>Bootstrap Form Example</title>
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <link rel="stylesheet"
href="https://cdn.jsdelivrivr.net/npm/bootstrap@5.0.0-beta3/dist/css/bootstrap.min.css
"
integrity="sha384-M8Q2zG/dIhL1f/zHeLpqY8EOMTDp1vRWZ9nmHgPjL1jKb5ajcPt5C5GL5xhxKjIp"
crossorigin="anonymous">
    <link rel="stylesheet" href="style.css">
  </head>
  <body>
    <div class="container">
      <h1>Bootstrap Form Example</h1>
      <form>
        <div class="form-group">
          <label for="firstName">First Name:</label>
          <input type="text" class="form-control" id="firstName" placeholder="Enter
first name" required>
        </div>
        <div class="form-group">
          <label for="lastName">Last Name:</label>
          <input type="text" class="form-control" id="lastName" placeholder="Enter
last name" required>
        </div>
        <div class="form-group">
          <label for="email">Email address:</label>
          <input type="email" class="form-control" id="email" placeholder="Enter
email" required>
        </div>
        <div class="form-group">
          <label for="password">Password:</label>
          <input type="password" class="form-control" id="password"
placeholder="Enter password" required>
        </div>
        <div class="form-group">
          <label for="phone">Phone Number:</label>
          <input type="tel" class="form-control" id="phone" placeholder="Enter
phone number" required>
        </div>
        <div class="form-group">
          <label for="gender">Gender:</label>
          <select class="form-select" id="gender" required>
            <option value="" selected disabled>Select your gender</option>
            <option value="male">Male</option>
            <option value="female">Female</option>
            <option value="other">Other</option>
          </select>
        </div>
      </form>
    </div>
  </body>
</html>

```

```

        <div class="form-group">
            <label for="message">Message:</label>
            <textarea class="form-control" id="message" rows="5" placeholder="Enter
your message"></textarea>
        </div>
        <button type="submit" class="btn btn-primary">Submit</button>
    </form>
</div>
<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.0-beta3/dist/js/bootstrap.bundle.mi
n.js"
integrity="sha384-pC2QX1SUx0D0jlFhxFKfzPLv61eh5o5ibhKdVYVS5iLcX9x3q8Hg7IKtdoAzPTo/"
crossorigin="anonymous"></script>
</body>
</html>

```

CSS....

```

.container {
    margin-top: 50px;
    max-width: 600px;
}

label {
    font-weight: bold;
}

textarea {
    resize: none;
}

.btn-primary {
    margin-top: 20px;
}

```

6 demonstrate the use of jquery event(click and dclick event).

```

<!DOCTYPE html>
<html lang="en">
    <head>
        <title>jQuery Click and Double-Click Example</title>
        <script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
        <style>
            #clickMe {
                padding: 10px;
                background-color: #ccc;
                text-align: center;
            }
        </style>
    </head>
    <body>
        <div id="clickMe">
            Click Me
        </div>
    </body>
</html>

```

```

        cursor: pointer;
    }
    #doubleClickMe {
        padding: 10px;
        background-color: #ccc;
        text-align: center;
        cursor: pointer;
    }
</style>
</head>
<body>
    <div id="clickMe">Click me!</div>
    <div id="doubleClickMe">Double-click me!</div>

    <script>
        $(document).ready(function() {
            // Handle click event
            $("#clickMe").click(function() {
                alert("You clicked me!");
            });

            // Handle double-click event
            $("#doubleClickMe").dblclick(function() {
                alert("You double-clicked me!");
            });
        });
    </script>
</body>
</html>

```

7 demonstrate the use of css selectors implements css using id,class and tag selectors.

```

<!DOCTYPE html>
<html lang="en">
    <head>
        <title>CSS Selector Example</title>
        <style>
            /* Apply styles to elements with the "box" class */
            .box {
                width: 100px;
                height: 100px;
                background-color: #ccc;
                margin: 10px;
                padding: 10px;
                border: 1px solid #999;
                text-align: center;
            }

```

```

/* Apply styles to the element with the ID "header" */
#header {
    font-size: 24px;
    font-weight: bold;
    color: #333;
    margin: 0;
    padding: 10px;
    text-align: center;
}

/* Apply styles to all <p> elements within the element with the ID "content"
*/
#content p {
    font-size: 18px;
    line-height: 1.5;
    margin: 10px;
    padding: 10px;
    text-align: justify;
}

/* Apply styles to the <a> element with the class "button" */
a.button {
    display: inline-block;
    background-color: #333;
    color: #fff;
    padding: 10px 20px;
    border-radius: 5px;
    text-decoration: none;
    margin: 10px;
}

/* Apply styles to the <input> element with the type "text" */
input[type="text"] {
    border-radius: 5px;
    padding: 10px;
    border: 1px solid #999;
    margin: 10px;
}
</style>
</head>
<body>
    <h1 id="header">CSS Selector Example</h1>
    <div class="box">Box 1</div>
    <div class="box">Box 2</div>
    <div class="box">Box 3</div>
    <div id="content">
        <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nullam ultricies
        faucibus risus, id posuere metus suscipit non. Fusce sed turpis id magna iaculis
        imperdiet. Nam at ipsum lorem. Mauris eu enim eget nibh sagittis egestas.</p>

```

```
    <p>Nunc euismod purus vitae nisl aliquam, sit amet pretium purus vehicula.
    Suspendisse malesuada magna a lorem imperdiet euismod. Fusce ac ligula dolor. Sed
    vel urna ut lectus pharetra tristique ut a sapien.</p>
```

```
    <a href="#" class="button">Button 1</a>
    <a href="#" class="button">Button 2</a>
    <input type="text" placeholder="Enter your name">
  </div>
</body>
</html>
```

8 Demonstrate the use of jquery effects for changing the background color of paragraph on button click.

```
<!DOCTYPE html>
<html>
<head>
  <title>jQuery Effects Example</title>
  <script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
  <script>
    $(document).ready(function(){
      $("button").click(function(){
        $("p").css("background-color", "yellow");
      });
    });
  </script>
  <style>
    p {
      padding: 20px;
      border: 1px solid black;
    }
  </style>
</head>
<body>
  <button>Change Background Color</button>
  <p>This is a paragraph.</p>
</body>
</html>
```

9 design a web page to demonstrate the use of css for menu design(horizontal and vertical).

```
<!DOCTYPE html>
<html>
<head>
  <title>Menu Design Example</title>
  <style>
    /* Horizontal Menu */
    .horizontal-menu {
```

```

    list-style-type: none;
    margin: 0;
    padding: 0;
    overflow: hidden;
    background-color: #333;
}

.horizontal-menu li {
    float: left;
}

.horizontal-menu li a {
    display: block;
    color: white;
    text-align: center;
    padding: 14px 16px;
    text-decoration: none;
}

.horizontal-menu li a:hover {
    background-color: #111;
}

/* Vertical Menu */
.vertical-menu {
    list-style-type: none;
    margin: 0;
    padding: 0;
    width: 200px;
    background-color: #f1f1f1;
}

.vertical-menu li a {
    display: block;
    color: #000;
    padding: 8px 16px;
    text-decoration: none;
}

.vertical-menu li a:hover {
    background-color: #ddd;
}
</style>
</head>
<body>
<h2>Horizontal Menu Example</h2>
<ul class="horizontal-menu">
    <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>

<h2>Vertical Menu Example</h2>
<ul class="vertical-menu">
  <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>
</body>
</html>
```

10 design a web page which shows a bootstrap responsive table (min 5 rows and 6 column).

```
<!DOCTYPE html>
<html>
<head>
  <title>Bootstrap Responsive Table Example</title>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css">
  <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>
  <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></script>
</head>
<body>
  <div class="container">
    <h2>Bootstrap Responsive Table Example</h2>
    <div class="table-responsive">
      <table class="table">
        <thead>
          <tr>
            <th>First Name</th>
            <th>Last Name</th>
            <th>Email</th>
            <th>Phone</th>
            <th>City</th>
            <th>Country</th>
          </tr>
        </thead>
        <tbody>
          <tr>
            <td>John</td>
            <td>Doe</td>
            <td>john@example.com</td>
            <td>555-555-5555</td>
```

```

        <td>New York</td>
        <td>USA</td>
    </tr>
    <tr>
        <td>Jane</td>
        <td>Doe</td>
        <td>jane@example.com</td>
        <td>555-555-5555</td>
        <td>Los Angeles</td>
        <td>USA</td>
    </tr>
    <tr>
        <td>Mark</td>
        <td>Smith</td>
        <td>mark@example.com</td>
        <td>555-555-5555</td>
        <td>Chicago</td>
        <td>USA</td>
    </tr>
    <tr>
        <td>Sara</td>
        <td>Johnson</td>
        <td>sara@example.com</td>
        <td>555-555-5555</td>
        <td>Miami</td>
        <td>USA</td>
    </tr>
    <tr>
        <td>Mike</td>
        <td>Brown</td>
        <td>mike@example.com</td>
        <td>555-555-5555</td>
        <td>San Francisco</td>
        <td>USA</td>
    </tr>
</tbody>
</table>
</div>
</div>
</body>
</html>

```

11 Demonstrate the use of bootstrap grid system and navbar on web page

```

<!DOCTYPE html>
<html lang="en">
<head>

```



```

<title>Bootstrap Grid System and Navbar Example</title>
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
  <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>
  <script
src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.16.0/umd/popper.min.js"></s
cript>
  <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js"></script>
</head>
<body>

<!-- Navbar -->
<nav class="navbar navbar-expand-lg navbar-light bg-dark">
  <a class="navbar-brand" href="#">My Website</a>
  <button class="navbar-toggler" type="button" data-toggle="collapse"
data-target="#navbarNav" aria-controls="navbarNav" aria-expanded="false"
aria-label="Toggle navigation">
    <span class="navbar-toggler-icon"></span>
  </button>
  <div class="collapse navbar-collapse" id="navbarNav">
    <ul class="navbar-nav">
      <li class="nav-item">
        <a class="nav-link" href="#">Home</a>
      </li>
      <li class="nav-item">
        <a class="nav-link" href="#">About</a>
      </li>
      <li class="nav-item">
        <a class="nav-link" href="#">Contact</a>
      </li>
    </ul>
  </div>
</nav>

<!-- Grid System -->
<div class="container-fluid">
  <div class="row">
    <div class="col-sm-4" style="background-color:lavender;">Column 1</div>
    <div class="col-sm-4" style="background-color:lavenderblush;">Column 2</div>
    <div class="col-sm-4" style="background-color:lavender;">Column 3</div>
  </div>
</div>

</body>
</html>

```