Web Application Development

Assignment – 6 (jQuery & AJAX)

1. **Using jQuery perform the following operations –**
   a. In a H1 tag write "JavaScript". Use ID to select the element in jQuery and change the text of the tag to "jQuery".
   b. In an h2 tag write "jQuery is a JavaScript Library". Use class selector in jQuery to select the element and change the text color and background color. Use CSS classes to perform the operations
   c. Write a paragraph of 500 words. Create the following buttons to perform the tasks using jQuery.

   > **i. Hide – to hide the paragraph text**
   > **ii. Show – to show the paragraph**
   > **iii. Toggle – to toggle between show and hide**
   > **iv. Fade Out – to animate the hide operation**
   > **v. Fade In – to animate the show operation**

CODE:

```html
<!-- Name: Sunil Kumar Sahoo -->
<!-- Sic No: 23MMCI38 -->
<!-- Roll No: 16 (A2) -->
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Ass - 6 (Q-1)</title>
</head>
<body>
  <h1 id="h1">JavaScript</h1>
  <h2 class="h2">jQuery is a JavaScript Library</h2>
  <p id="text">Lorem ipsum dolor sit amet, consectetur adipisicing elit. Quo accusamus laborum maiores
```

vero dolorum, iure doloremque amet iste? Est odio quaerat et doloribus tempore reprehenderit enim sit, distinctio ducimus sequi at labore quis aperiam eveniet culpa recusandae, deleniti quae. Laboriosam vel impedit aliquid omnis itaque, architecto molestias, repellendus dolorum in rerum quas dolor possimus adipisci fugit ipsa quasi soluta ab quod doloribus tenetur ad voluptatum iste. Delectus earum totam soluta fuga, illo quo saepe unde porro accusamus nobis iste reiciendis quis ipsa! Repudiandae rerum quibusdam mollitia qui, reiciendis sapiente, consequatur deserunt quam, amet quia totam officiis! Eaque deleniti quam iste distinctio mollitia quod optio ullam voluptas rerum, aspernatur rem tenetur consectetur neque, accusamus ratione corporis blanditiis esse dolorum dolorem! Quaerat reiciendis eos ducimus eum dolorem voluptate, pariatur vitae ex officia aliquam esse accusamus atque minus rerum iusto a odio deserunt hic fugit architecto nam nisi. Pariatur reprehenderit vitae blanditiis deserunt, veritatis mollitia possimus, sunt exercitationem ipsum corporis ut sit omnis est ab nihil quibusdam fugit ducimus atque. Esse sed, quam ipsa vero sunt est, voluptate ex cumque, rerum error at asperiores ab ut voluptatem fugit laudantium provident! Mollitia exercitationem quidem molestias numquam rerum quae deleniti consequuntur sequi? Doloremque eum rerum dolorem assumenda reiciendis no corporis ut sit omnis est ab nihil quibusdam fugit ducimus atque. Esse sed, quam ipsa vero sunt est, voluptate ex cumque, rerum error bis praesentium accusamus quos voluptas esse reprehenderit nemo consectetur aspernatur quod odit iste repellendus rem corporis nesciunt

NAME: SUNIL KUMAR SAHOO
SIC NO: 23MMCI38
Roll No: 16 (A2)

numquam odio, consequuntur impedit! Suscipit, possimus deleniti, dicta beatae ullam perferendis hic nostrum, consectetur fugiat harum veritatis quia dolores commodi voluptatem reprehenderit error facilis facere! Dignissimos expedita harum in cum quidem iste ex enim, rerum dolores aut accusamus rem laboriosam. Veniam quam id, aspernatur tenetur atque molestias nihil aliquid corporis sed doloremque dolorum optio aut ipsa alias eligendi Molestiae expedita inventore ea fugit quasi dicta dolorum suscipit libero doloribus laborum omnis eius ipsum tempore esse doloremque explicabo adipisci vero, cumque similique et sequi modi unde porro id. Corrupti, corporis!</p>

```html
    <button id="hideData">Hide</button>
    <button id="showData">Show</button>
    <button id="toggleData">Toogle</button>
    <button id="fadeOutData">Fade Out</button>
    <button id="fadeInData">Fade In</button>

    <script src="./jquery-3.7.1.min.js"></script>
    <script>
      // a
      $("#h1").text("jQuery")
      // b
      $(".h2").css({"color":"white", "backgroundColor":"black"})
      // c
      $("#hideData").click(function(){
         $("#text").hide();
      })
      $("#showData").click(function(){
         $("#text").show();
      })
      $("#toggleData").click(function(){
         $("#text").toggle()
      })
      $("#fadeOutData").click(function(){
         $("#text").fadeOut();
      })
      $("#fadeInData").click(function(){
         $("#text").fadeIn();
      })
    </script>
 </body>
 </html>
```

OUTPUT:

jQuery

NAME: SUNIL KUMAR SAHOO
SIC NO: 23MMCI38
Roll No: 16 (A2)

2. **Take a number as input from the user in an HTML input field and check if the number is a prime number or not, using jQuery. Display the message in a paragraph.**
   CODE:

```html
<!-- Name: Sunil Kumar Sahoo -->
<!-- Sic No: 23MMCI38 -->
<!-- Roll No: 16 (A2) -->
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Ass - 6 (Q-2)</title>
</head>
<body>
   <div class="container">
     <form action="" id="primeCheckForm">
       <label for="number">Enter Your Number:</label>
       <input type="text" name="number" id="number" placeholder="Enter Integer No"> <br>
       <input type="submit" name="submit" id="submit">
     </form>
     <p id="result"></p>
   </div>
   <script src="./jquery-3.7.1.min.js"></script>
   <script>
     $("#primeCheckForm").submit(function (e) {
       e.preventDefault()
       let num = $("#number").val()
       num = Number(num)
       if (num < 2) {
         $("#result").text("Not a Prime Number.")
       } else {
         let isPrime = true
         for (let i = 2; i <= Math.sqrt(num); i++) {
           if (num % i == 0) {
             isPrime = false
             break
           }
         }
         if (isPrime) {
           $("#result").text("Prime Number.")
         } else {
           $("#result").text("Not a Prime Number.")
         }
       }
     })
   </script>
</body>
</html>
```

OUTPUT:

Enter Your Number: 5

Submit

Prime Number.

3. **Consider the following array of objects and display the data in a tabular format.**
   const products = [
   { pid: 1, name: "Wireless Mouse", category: "Electronics", price: 29.99, rating: 4.5 },
   { pid: 2, name: "Bluetooth Headphones", category: "Electronics", price: 59.99, rating: 4.7 },
   { pid: 3, name: "Gaming Keyboard", category: "Electronics", price: 89.99, rating: 4.6 },
   { pid: 4, name: "Coffee Maker", category: "Home Appliances", price: 49.99, rating: 4.2 },
   { pid: 5, name: "Air Fryer", category: "Home Appliances", price: 99.99, rating: 4.8 },
   { pid: 6, name: "Yoga Mat", category: "Fitness", price: 19.99, rating: 4.5 },
   { pid: 7, name: "Fitness Tracker", category: "Fitness", price: 39.99, rating: 4.4 },
   { pid: 8, name: "Smartphone Stand", category: "Accessories", price: 15.99, rating: 4.3 },
   { pid: 9, name: "Portable Charger", category: "Accessories", price: 24.99, rating: 4.6 },
   { pid: 10, name: "Stylish Backpack", category: "Fashion", price: 39.99, rating: 4.5 }
   ];
   CODE:

```html
<!-- Name: Sunil Kumar Sahoo -->
<!-- Sic No: 23MMCI38 -->
<!-- Roll No: 16 (A2) -->
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Ass - 6 (Q-3)</title>
</head>
<body>
    <div class="container" id="container">
    </div>
    <script src="./jquery-3.7.1.min.js"></script>
    <script>
        const products = [
            { pid: 1, name: "Wireless Mouse", category: "Electronics", price: 29.99, rating: 4.5 },
            { pid: 2, name: "Bluetooth Headphones", category: "Electronics", price: 59.99, rating: 4.7 },
            { pid: 3, name: "Gaming Keyboard", category: "Electronics", price: 89.99, rating: 4.6 },
            { pid: 4, name: "Coffee Maker", category: "Home Appliances", price: 49.99, rating: 4.2 },
            { pid: 5, name: "Air Fryer", category: "Home Appliances", price: 99.99, rating: 4.8 },
            { pid: 6, name: "Yoga Mat", category: "Fitness", price: 19.99, rating: 4.5 },
            { pid: 7, name: "Fitness Tracker", category: "Fitness", price: 39.99, rating: 4.4 },
            { pid: 8, name: "Smartphone Stand", category: "Accessories", price: 15.99, rating: 4.3 },
            { pid: 9, name: "Portable Charger", category: "Accessories", price: 24.99, rating: 4.6 },
            { pid: 10, name: "Stylish Backpack", category: "Fashion", price: 39.99, rating: 4.5 }
        ];
        let data = `<table class="table-product" border >`
```

```
        data += `<tr>
        <th>PID</th>
        <th>Name</th>
        <th>Category</th>
        <th>Price</th>
        <th>Rating</th>
    </tr>`
    for(let i  = 0; i < products.length; i++){
        data += `<tr>
            <td>${products[i].pid}</td>
            <td>${products[i].name}</td>
            <td>${products[i].category}</td>
            <td>${products[i].price}</td>
            <td>${products[i].rating}</td>
        </tr>
    }
    data += `</table>`
    $("#container").html(data)
  </script>
</body>
</html>
```

OUTPUT:

PID	Name	Category	Price	Rating
1	Wireless Mouse	Electronics	29.99	4.5
2	Bluetooth Headphones	Electronics	59.99	4.7
3	Gaming Keyboard	Electronics	89.99	4.6
4	Coffee Maker	Home Appliances	49.99	4.2
5	Air Fryer	Home Appliances	99.99	4.8
6	Yoga Mat	Fitness	19.99	4.5
7	Fitness Tracker	Fitness	39.99	4.4
8	Smartphone Stand	Accessories	15.99	4.3
9	Portable Charger	Accessories	24.99	4.6
10	Stylish Backpack	Fashion	39.99	4.5

4. **Create an unordered list with some product name and price as demonstrated below. Create a form with two filed Product name and price. Once form is submitted add the product to the unordered list with the help of jQuery.**
    Example Unordered List:
    □ **Mobile (Rs/- 22000)**
    □ **Laptop (Rs/- 88000)**
    □ **Ear Bud (Rs/- 3999)**

NAME: SUNIL KUMAR SAHOO
SIC NO: 23MMCI38
Roll No: 16 (A2)

CODE:

```
<!-- Name: Sunil Kumar Sahoo -->
<!-- Sic No: 23MMCI38 -->
<!-- Roll No: 16 (A2) -->
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Ass - 6 (Q-4)</title>
    <style>
      ul {
        list-style-position: inside;
      }
    </style>
</head>
<body>
    <div style="margin: auto; margin-top: 100px; width: 300px; padding: 20px;">
    <div class="container" style="text-align: center;">
        <h2 style="text-align: center;">Product & Price</h2>
        <form action="" id="ProductForm">
          <label for="name">Name:</label>
          <input type="text" name="name" id="name" placeholder="Enter Product Name"> <br><br>
          <label for="price">Price:</label>
          <input type="text" name="price" id="price" placeholder="Enter Price"> <br><br>
          <input type="submit" name="submit" id="submit" value="SUBMIT">
        </form>
        <br>
        <ul id="products" style="text-align: start;">
        </ul>
    </div>
    </div>
    <script src="./jquery-3.7.1.min.js"></script>
    <script>
      $("#ProductForm").submit(function (e) {
        e.preventDefault();
        let productName = $("#name").val();
        let productPrice = $("#price").val();
        if (productName !== "" && productPrice !== "") {
          $("#products").append(`<li>${productName} (Rs/- ${productPrice})</li>`);
          $("#name").val("");
          $("#price").val("");
        } else {
          alert("Please enter both product name and price.");
        }
      });
    </script>
</body>
</html>
```

OUTPUT:

Product & Price

Name: [Enter Product Name]

Price: [Enter Price]

[SUBMIT]

- Fan (Rs/- 2500)
- Iron (Rs/- 600)
- Bulb (Rs/- 20)
- DP Switch (Rs/- 400)

5. **Make an AJAX call to the following API and display the dog details like – image, name, lifespan, and temperament in a table. API: https://api.freeapi.app/api/v1/public/dogs**

CODE:

```
<!-- Name: Sunil Kumar Sahoo -->
<!-- Sic No: 23MMCI38 -->
<!-- Roll No: 16 (A2) -->
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Dog Breeds</title>
    <style>
     * {
       margin: 5px;
     }
     table {
       width: 100%;
       border-collapse: collapse;
       margin-top: 20px;
     }
     th, td {
       border: 1px solid #ababab;
       padding: 8px;
       text-align: left;
     }
     th {
       background-color: #d6d4d4;
     }
     img {
       width: 100px;
       height: auto;
     }
```

NAME: SUNIL KUMAR SAHOO
SIC NO: 23MMCI38
Roll No: 16 (A2)

```html
    </style>
  </head>
  <body>
    <table>
      <caption>
        <h1>Dog Breeds Information</h1>
      </caption>
      <thead>
        <tr>
          <th>Image</th>
          <th>Name</th>
          <th>Lifespan</th>
          <th>Temperament</th>
        </tr>
      </thead>
      <tbody id="tableBody"></tbody>
    </table>
    <script src="https://code.jquery.com/jquery-3.7.1.min.js"></script>
    <script>
      $.ajax({
        url: "https://api.freeapi.app/api/v1/public/dogs",
        method: "GET",
        contentType: "application/json",
        success: function (response) {
          let breeds = response.data.data;
          let breedHtml = "";
          for (let i = 0; i < breeds.length; i++) {
            breedHtml += `
              <tr>
                <td><img src="${breeds[i].image.url}" alt="${breeds[i].name}"></td>
                <td>${breeds[i].name}</td>
                <td>${breeds[i].life_span}</td>
                <td>${breeds[i].temperament}</td>
              </tr>
            `;
          }
          $("#tableBody").html(breedHtml);
        },
        error: function (error) {
          console.log("Error fetching data", error);
        }
      });
    </script>
  </body>
</html>
```

OUTPUT:

Dog Breeds Information

Image	Name	Lifespan	Temperament
	Affenpinscher	10 - 12 years	Stubborn, Curious, Playful, Adventurous, Active, Fun-loving
	Afghan Hound	10 - 13 years	Aloof, Clownish, Dignified, Independent, Happy
	African Hunting Dog	11 years	Wild, Hardworking, Dutiful
	Airedale Terrier	10 - 13 years	Outgoing, Friendly, Alert, Confident, Intelligent, Courageous
	Akbash Dog	10 - 12 years	Loyal, Independent, Intelligent, Brave
	Akita	10 - 14 years	Docile, Alert, Responsive, Dignified, Composed, Friendly, Receptive, Faithful, Courageous
	Alapaha Blue Blood Bulldog	12 - 13 years	Loving, Protective, Trainable, Dutiful, Responsible
	Alaskan Husky	10 - 13 years	Friendly, Energetic, Loyal, Gentle, Confident
	Alaskan Malamute	12 - 15 years	Friendly, Affectionate, Devoted, Loyal, Dignified, Playful
	American Bulldog	10 - 12 years	Friendly, Assertive, Energetic, Loyal, Gentle, Confident, Dominant

6. **Make an AJAX call to the following API and create a drop down menu on the HTML where country name will be displayed to the user and unicodeFlag will be used as the value. API: https://countriesnow.space/api/v0.1/countries/flag/unicode**

CODE:

```
<!-- Name: Sunil Kumar Sahoo -->
<!-- Sic No: 23MMCI38 -->
<!-- Roll No: 16 (A2) -->
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Country Dropdown with Unicode Flags</title>
    <style>
     * {
       font-family: Arial, sans-serif;
     }
     select {
       padding: 10px;
       margin: 20px 0;
       font-size: 16px;
     }
    </style>
  </head>
  <body>
    <h1>Select a Country</h1>
```

```
<select id="countryDropdown">
  <option value="">--Select a Country--</option>
</select>
<script src="https://code.jquery.com/jquery-3.7.1.min.js"></script>
<script>
  $.ajax({
    url: "https://countriesnow.space/api/v0.1/countries/flag/unicode",
    method: "GET",
    contentType: "application/json",
    success: function (response) {
      const countries = response.data;
      let dropdownHtml = "";
      countries.forEach(country => {
        dropdownHtml += `<option value="${country.unicodeFlag}">${country.name}</option>`;
      });
      $("#countryDropdown").append(dropdownHtml);
    },
    error: function (error) {
      console.log("Error fetching data", error);
    }
  });
</script>
</body>
</html>
```
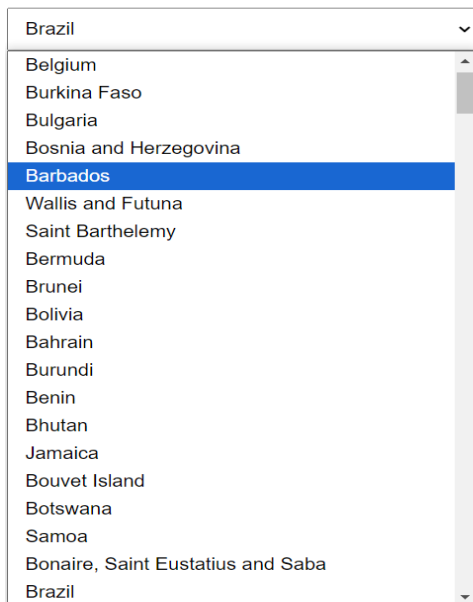
OUTPUT:

Select a Country

Brazil
Belgium
Burkina Faso
Bulgaria
Bosnia and Herzegovina
Barbados
Wallis and Futuna
Saint Barthelemy
Bermuda
Brunei
Bolivia
Bahrain
Burundi
Benin
Bhutan
Jamaica
Bouvet Island
Botswana
Samoa
Bonaire, Saint Eustatius and Saba
Brazil

Name: SUNIL KUMAR SAHOO
SIC: 23MMCI38
Lab: WAD
Group: A2 (16)

NAME: SUNIL KUMAR SAHOO
SIC NO: 23MMCI38
Roll No: 16 (A2)