WEB APPLICATION DEVELOPMENT LAB

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Eshwar Deshmukh Chavan

HU22CSEN0100999

1. JavaScript program to convert object to strings

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Object to String Example</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      margin: 20px;
    }
    #output {
      margin-top: 20px;
      padding: 10px;
      border: 1px solid #ddd;
      background-color: #f9f9f9;
    }
  </style>
</head>
<body>
  <h1>Convert JavaScript Object to String</h1>
  <button onclick="convertObjectToString()">Convert Object</button>
```

```
  <div id="output"></div>

  <script>
    const obj = {
      name: "John",
      age: 30,
      city: "New York"
    };

    function convertObjectToString() {
      const jsonString = JSON.stringify(obj);
      document.getElementById("output").innerText = jsonString;
    }
  </script>
</body>
</html>
```

2. converting JavaScript object to json

CODE:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Object to JSON Example</title>
```

```
</head>
<body>
  <h1>Convert Object to JSON</h1>
  <button onclick="convertToJson()">Convert</button>

  <div id="jsonOutput" style="margin-top: 20px; padding: 10px; border: 1px solid
#ddd;"></div>

  <script>
    function convertToJson() {
      const person = {
        name: "Alice",
        age: 25,
        city: "London"
      };

      const jsonString = JSON.stringify(person);

      document.getElementById('jsonOutput').innerText = jsonString;
    }
  </script>
</body>
</html>
```

3. fetch product details from a json file and display them dynamically on a webpage

Product List

Laptop

Price: $899.99

Description: A high performance laptop for work and play.

Smartphone

Price: $499.99

Description: Latest smartphone with amazing features.

JSON :


```
[
  {
    "id": 1,
    "name": "Laptop",
    "price": 899.99,
    "description": "A high performance laptop for work and play."

  },
  {
    "id": 2,
    "name": "Smartphone",
    "price": 499.99,
    "description": "Latest smartphone with amazing features."

  }
]
```


CODE:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>Product List</title>
</head>
<body>
    <h1>Product Details</h1>
    <div id="product-list"></div>

    <script>
        fetch('products.json')
            .then(response => response.json())
            .then(products => {
                s
                let productList = document.getElementById('product-list');

                products.forEach(product => {
                    let productItem = document.createElement('div');

                    productItem.innerHTML = `
                        <strong>${product.name}</strong><br>
                        Price: $${product.price}<br>
                        Description: ${product.description}<br><br>
                    `;

                    productList.appendChild(productItem);
                });
            })
            .catch(error => console.error('Error fetching product data:',
error));
    </script>
</body>
</html>
```

4. Record expenses in json format and calculate total expenses

Expenses

Category: Food

Description: Lunch

Amount: $15.50

Category: Transportation

Description: Bus fare

Amount: $2.75

Category: Entertainment

Description: Movie ticket

Amount: $12.00

Category: Food

Description: Coffee

Amount: $4.25

Total Expenses: $34.50

JSON:


```
[
    {
      "category": "Food",
      "description": "Lunch",
      "amount": 15.50
    },
    {
      "category": "Transportation",
      "description": "Bus fare",
      "amount": 2.75
```

```
  },
  {
    "category": "Entertainment",
    "description": "Movie ticket",
    "amount": 12.00
  },
  {
    "category": "Food",
    "description": "Coffee",
    "amount": 4.25
  }
]
```

CODE:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Expenses Tracker</title>
</head>
<body>

    <h1>Expenses</h1>
    <div id="expense-list"></div>
    <h3>Total Expenses: $<span id="total-expenses">0.00</span></h3>

    <script>
        fetch('expenses.json')
            .then(response => response.json())
            .then(data => {
                const expenseList = document.getElementById('expense-list');
                let totalExpenses = 0;

                data.forEach(expense => {
                    const expenseDiv = document.createElement('div');
                    expenseDiv.innerHTML = `
                        <p>Category: ${expense.category}</p>
                        <p>Description: ${expense.description}</p>
                        <p>Amount: $${expense.amount.toFixed(2)}</p>
                        <hr>
```

```
                    `;
                    expenseList.appendChild(expenseDiv);

                    totalExpenses += expense.amount;
                });
                document.getElementById('total-expenses').innerText =
totalExpenses.toFixed(2);
            })
            .catch(error => console.error('Error loading the expense data:',
error));
    </script>

</body>
</html>
```