

AYUSH SRIVASTAVA

22IT3013

T1. Develop a single page application for Shopping List. First develop a simple prototype using html and javascript. Gradually develop a MVC based prototype.

Ans.<!DOCTYPE html>

```
<html lang="en">
```

```
<head>
```

```
<meta charset="UTF-8">
```

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

```
<title>Shopping List</title>
```

```
<style>
```

```
body {
```

```
    font-family: Arial, sans-serif;
```

```
}
```

```
#shopping-list {
```

```
    margin: 20px auto;
```

```
    width: 300px;
```

```
    padding: 20px;
```

```
    border: 1px solid #ccc;
```

```
    border-radius: 5px;
```

```
    background-color: #f9f9f9;
```

```
}
```

```
#shopping-list h2 {
```

```
    text-align: center;
```

```
}
```

```
#item-input {
```

```
    width: 100%;
```

```
    margin-bottom: 10px;
```

```
    padding: 8px;
```

```
    box-sizing: border-box;
```

```
}
```

```
#add-button {
```

```
    width: 100%;
```

```

padding: 10px;
background-color: #4CAF50;
color: white;
border: none;
border-radius: 3px;
cursor: pointer;}
#shopping-items {
  list-style-type: none;
  padding: 0;
}
.shopping-item {
  margin-bottom: 5px;
  padding: 8px;
  background-color: #fff;
  border: 1px solid #ddd;
  border-radius: 3px;
}
</style>
</head>
<body>
<div id="shopping-list">
  <h2>Shopping List</h2>
  <input type="text" id="item-input" placeholder="Add item...">
  <button id="add-button">Add Item</button>
  <ul id="shopping-items"></ul>
</div>
<script>
  // Get references to HTML elements
  const itemInput = document.getElementById('item-input'); const
  addButton = document.getElementById('add-button'); const
  shoppingList = document.getElementById('shopping-items');

  // Event listener for adding an item
  addButton.addEventListener('click', addItem);

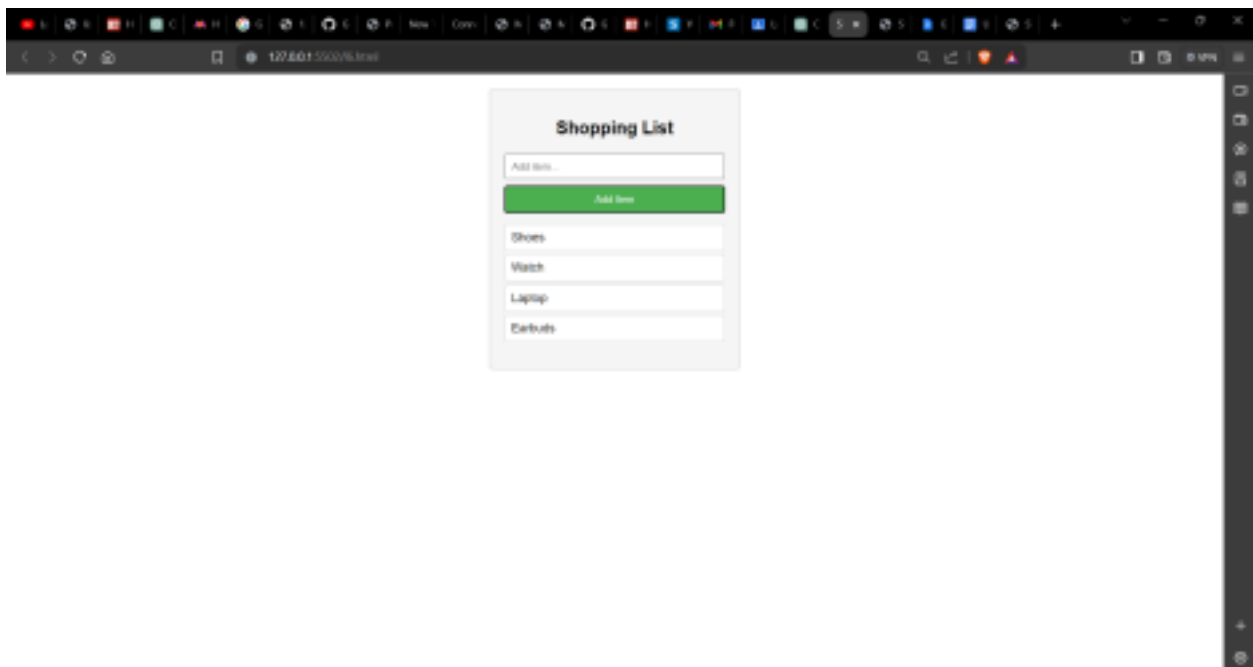
  // Function to add item to the list
  function addItem() {
    const itemName = itemInput.value.trim();

```

```

if (itemName !== "") {
  const listItem = document.createElement('li');
  listItem.className = 'shopping-item';
  listItem.textContent = itemName;
  shoppingList.appendChild(listItem);
  itemInput.value = ""; // Clear input field after adding item
} else {
  alert('Please enter an item!');
}
}
</script></body></html>

```



Using MVC.

```

<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Shopping List</title>
<style>
  /* Styles remain the same */
</style>
</head>
<body>

```

```
<div id="shopping-list">
  <h2>Shopping List</h2>
  <input type="text" id="item-input" placeholder="Add item...">
  <button id="add-button">Add Item</button>
  <ul id="shopping-items"></ul>
</div>
```

```
<script>
  // Model
  const shoppingModel = {
    items: [],
    addItem: function(itemName) {
      this.items.push(itemName);
    }
  };

  // View
  const shoppingView = {
    displayItem: function(item) {
      const shoppingList = document.getElementById('shopping-items');
      const listItem = document.createElement('li');
      listItem.className = 'shopping-item';
      listItem.textContent = item;
      shoppingList.appendChild(listItem);
    }
  };

  // Controller
  const shoppingController = {
    init: function() {
      const addButton = document.getElementById('add-button');
      addButton.addEventListener('click', function() {
        const itemInput = document.getElementById('item-input');
        const itemName = itemInput.value.trim();
        if (itemName !== "") {
          shoppingModel.addItem(itemName);
          shoppingView.displayItem(itemName);
        }
      });
    }
  };
  shoppingController.init();
</script>
```

```
        itemInput.value = "";
    } else {
        alert('Please enter an item!');
    }
});
}
```

```
shoppingController.init();
</script>
```

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

