WEB TECH LAB:6

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Q.

```html
<!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;
margin: 20px;
        }           #app {
max-width: 400px;
margin: 0 auto;
        }
        #items-list {
list-style-type: none;
padding: 0;
        }
    </style>
</head>
<body>
    <div id="app">
        <h1>Shopping List</h1>
        <input type="text" id="itemInput" placeholder="Enter item">
        <button onclick="addItem()">Add Item</button>
        <ul id="items-list"></ul>
    </div>

    <script>
     // MVC-based prototype

     // Model

    class ShoppingListModel {
constructor() {
this.items = [];
    }
```

```javascript
    addItem(item) {
this.items.push(item);
    }
}
 // View class ShoppingListView {      constructor() {
this.itemList = document.getElementById('items-list');
this.itemInput = document.getElementById('itemInput');
this.addButton = document.querySelector('button');      }
bindAddItem(handler) {
this.addButton.addEventListener('click', () => {            const
itemName = this.itemInput.value.trim();            if (itemName
!== '') {             handler(itemName);
this.itemInput.value = ''; // Clear the input field
        }
    });
    }        renderItems(items) {
this.itemList.innerHTML = '';           items.forEach(item
=> {            const listItem =
document.createElement('li');
listItem.textContent = item;
        this.itemList.appendChild(listItem);
    });
    }
}

// Controller
class ShoppingListController
{    constructor(model,
view) {          this.model =
model;          this.view =
view;
      // Initial render
      this.view.renderItems(this.model.items);

      // Bind events
this.view.bindAddItem(this.handleAddItem.bind(this));      }
handleAddItem(itemName) {
this.model.addItem(itemName);
```

```
        this.view.renderItems(this.model.items);
    }
}

// Instantiate MVC components    const model = new
ShoppingListModel();    const view = new ShoppingListView();
const controller = new ShoppingListController(model, view);


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

Output:

Shopping List

| Enter item | Add Item |

SAMSUNG S22 ULTRA
IPHONE 16 PRO MAX
GUCCI BELT