

# Web Technology

## Lab - 7

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Q1)

Develop prototype 3 continuing with the last lab. Confirm that the app now remembers your list even after a page refresh.

HTML Code:

```
<!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>
  <link rel="stylesheet" href="styles.css">
</head>
<body>
  <div class="container">
    <h1>Shopping List</h1>
    <input type="text" id="itemInput" placeholder="Add new item">
    <button onclick="addItem()">Add Item</button>
    <ul id="itemList"></ul>
  </div>

  <script src="script.js"></script>
</body>
</html>
```

CSS code:

```
.container {
  max-width: 600px;
  margin: 50px auto;
  padding: 0 20px;
}
```

```
h1 {
  text-align: center;
}

input[type="text"] {
  width: 70%;
  padding: 8px;
  margin-bottom: 10px;
}

button {
  padding: 8px 15px;
  background-color: #4CAF50;
  color: white;
  border: none;
  cursor: pointer;
}

button:hover {
  background-color: #45a049;
}

ul {
  list-style-type: none;
  padding: 0;
}

li {
  margin-bottom: 5px;
  padding: 8px;
  background-color: #f2f2f2;
  border-radius: 5px;
}
```

Javascript Code:  
script .js

```
function addItem() {
  var itemInput = document.getElementById('itemInput');
```

```

var itemValue = itemInput.value.trim();

if (itemValue !== '') {
    var itemList = document.getElementById('itemList');
    var listItem = document.createElement('li');
    listItem.textContent = itemValue;
    itemList.appendChild(listItem);
    saveListToStorage();
    itemInput.value = '';
} else {
    alert('Please enter a valid item!');
}
}

function saveListToStorage() {
    var itemList = document.getElementById('itemList');
    var items = [];

    for (var i = 0; i < itemList.children.length; i++) {
        items.push(itemList.children[i].textContent);
    }

    localStorage.setItem('shoppingList', JSON.stringify(items));
}

function loadListFromStorage() {
    var itemList = document.getElementById('itemList');
    var storedItems = localStorage.getItem('shoppingList');

    if (storedItems) {
        var items = JSON.parse(storedItems);

        items.forEach(function(item) {
            var listItem = document.createElement('li');
            listItem.textContent = item;

```

```
        itemList.appendChild(listItem);
    });
}
}

window.addEventListener('load', loadListFromStorage);
```

## model.js

```
var shoppingListModel = {
    items: [],
    addItem: function(item) {
        this.items.push(item);
    }
};
```

## controller.js

```
var shoppingListController = {
    addItem: function() {
        var itemInput = document.getElementById('itemInput');
        var itemValue = itemInput.value.trim();

        if (itemValue !== '') {
            shoppingListModel.addItem(itemValue);
            itemInput.value = '';
            shoppingListView.displayItems();
        } else {
            alert('Please enter a valid item!');
        }
    },
    init: function() {
        this.setupEventListeners();
        shoppingListView.displayItems();
    },
    setupEventListeners: function() {
        var addButton = document.querySelector('button');
        addButton.addEventListener('click', this.addItem);
    }
};
```

```

        var itemInput = document.getElementById('itemInput');
        itemInput.addEventListener('keypress', function(event) {
            if (event.key === 'Enter') {
                shoppingListController.addItem();
            }
        });
    };

shoppingListController.init();

```

### view.js

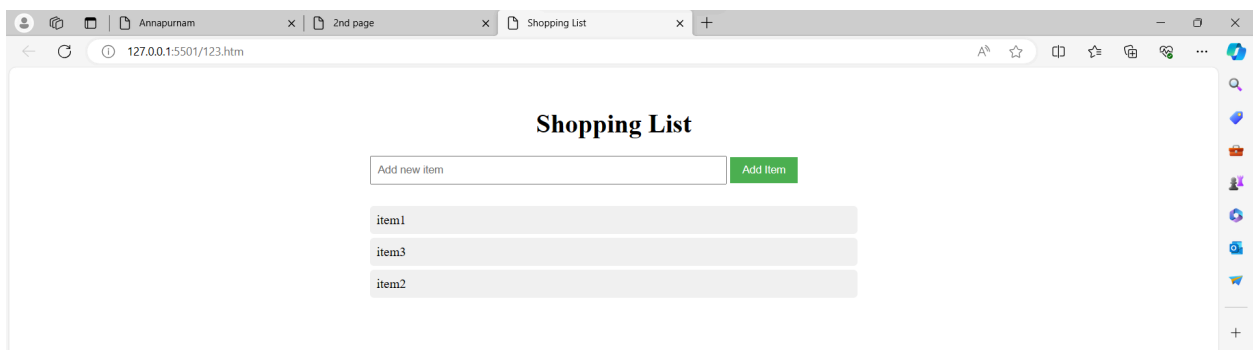
```

var shoppingListView = {
    displayItems: function() {
        var itemList = document.getElementById('itemList');
        itemList.innerHTML = '';

        shoppingListModel.items.forEach(function(item) {
            var listItem = document.createElement('li');
            listItem.textContent = item;
            itemList.appendChild(listItem);
        });
    }
};

```

### OUTPUT



Q2) Create local storage that saves the number of times you have accessed the page and

displays it.

HTML code:-

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Page Access Counter</title>
  <link rel="stylesheet" href="styles.css">
</head>
<body>
  <h1>Page Access Counter</h1>
  <p>You have accessed this page <span id="accessCount"></span> times.</p>
  <button id="incrementButton">Increment Access Count</button>
  <script src="script.js"></script>
</body>
</html>
```

CSS Code:-

```
body {
  font-family: Arial, sans-serif;
  margin: 0;
  padding: 0;
  text-align: center;
}

h1 {
  margin-top: 50px;
}

p {
  font-size: 18px;
}
```

Javascript Code:-

```
function updateAccessCount() {
```

```
    if (typeof(Storage) !== "undefined") {
        if (localStorage.pageAccessCount) {
            localStorage.pageAccessCount =
Number(localStorage.pageAccessCount) + 1;
        } else {
            localStorage.pageAccessCount = 1;
        }
        document.getElementById("accessCount").innerText =
localStorage.pageAccessCount;
    } else {
        document.getElementById("accessCount").innerText = "Sorry, your
browser does not support web storage...";
    }
}

function initializeAccessCount() {
    if (typeof(Storage) !== "undefined") {
        if (!localStorage.pageAccessCount) {
            localStorage.pageAccessCount = 0;
        }
        document.getElementById("accessCount").innerText =
localStorage.pageAccessCount;
    } else {
        document.getElementById("accessCount").innerText = "Sorry, your
browser does not support web storage...";
    }
}

window.onload = initializeAccessCount;

document.getElementById("incrementButton").addEventListener("click",
updateAccessCount);
```

OUTPUT:-

