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22CS3021

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Web Technology Lab Assignment-6

T1: Code for simple prototype using HTML and JavaScript. This prototype will allow users to add items to a shopping list and display them on the page.
:-

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Simple Shopping List</title>
    <style>
        body {
            font-family: Arial, sans-serif;
        }
        #shopping-list {
            margin-top: 20px;
        }
    </style>
</head>
<body>
    <h1>Simple Shopping List</h1>

    <form id="add-item-form">
        <input type="text" id="item" placeholder="Enter item">
        <button type="submit">Add Item</button>
    </form>

    <ul id="shopping-list">
    </ul>

    <script>
        document.addEventListener('DOMContentLoaded', function() {
            const form = document.getElementById('add-item-form');
            const itemList = document.getElementById('shopping-list');

            form.addEventListener('submit', function(event) {
                event.preventDefault();

                const itemInput = document.getElementById('item');
                const newItemText = itemInput.value.trim();

                if (newItemText !== '') {
```

```
                addItem(newItemText);
                itemInput.value = '';
            }
        });

        function addItem(itemText) {
            const li = document.createElement('li');
            li.textContent = itemText;
            itemList.appendChild(li);
        }
    });
    </script>
</body>
</html>
```
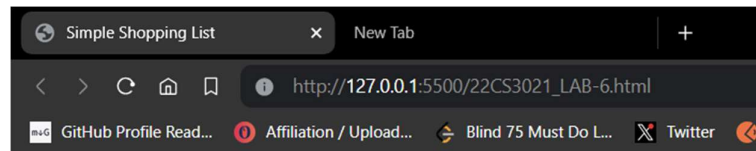
Web Page:

Simple Shopping List

T2: Code for a Model-View-Controller (MVC) based prototype which has:

- Model: This will manage the data of the application.
- View: This will display the data to the user.
- Controller: This will handle user input and update the model and view accordingly.

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

```html
            font-family: Arial, sans-serif;
        }
        #shopping-list {
            margin-top: 20px;
        }
    </style>
</head>
<body>
    <h1>MVC Shopping List</h1>

    <form id="add-item-form">
        <input type="text" id="item" placeholder="Enter item">
        <button type="submit">Add Item</button>
    </form>

    <ul id="shopping-list">
    </ul>

    <script>
        const model = {
            items: [],

            addItem: function(item) {
                this.items.push(item);
            },

            getItems: function() {
                return this.items;
            }
        };

        const view = {
            itemList: document.getElementById('shopping-list'),

            render: function() {
                this.itemList.innerHTML = '';
                const items = controller.getItems();
                items.forEach(item => {
                    const li = document.createElement('li');
                    li.textContent = item;
                    this.itemList.appendChild(li);
                });
            }
        };

        const controller = {
            init: function() {
                view.render();
```

```
                this.setupEventListeners();
            },

            setupEventListeners: function() {
                const form = document.getElementById('add-item-form');
                form.addEventListener('submit', function(event) {
                    event.preventDefault();
                    const itemInput = document.getElementById('item');
                    const newItemText = itemInput.value.trim();
                    if (newItemText !== '') {
                        model.addItem(newItemText);
                        view.render();
                        itemInput.value = '';
                    }
                });
            },

            getItems: function() {
                return model.getItems();
            }
        };

        controller.init();
    </script>
</body>
</html>
```
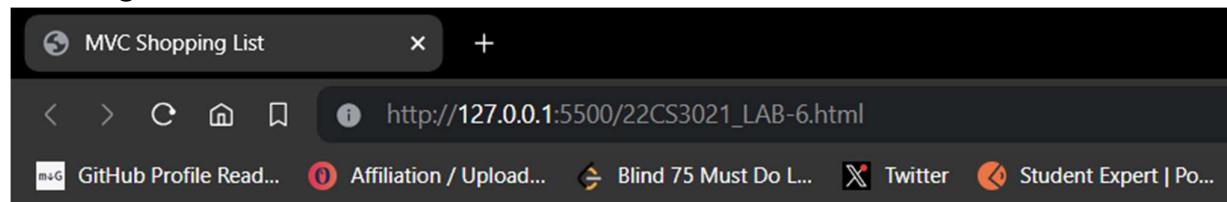
Web Page:

MVC Shopping List

avocado   Add Item

- vegetables
- dragon fruit