NAME :VIVEK ANAND ROLL NO: 22CS3066

LAB ASSIGNMENT - 6

Question 1

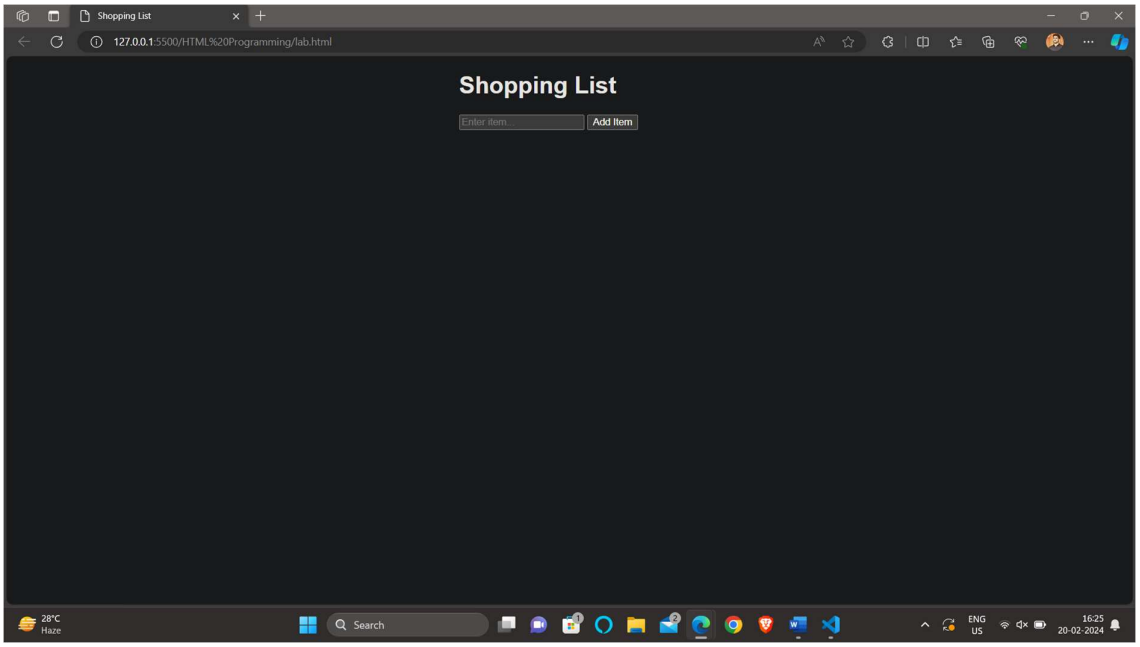
Code :

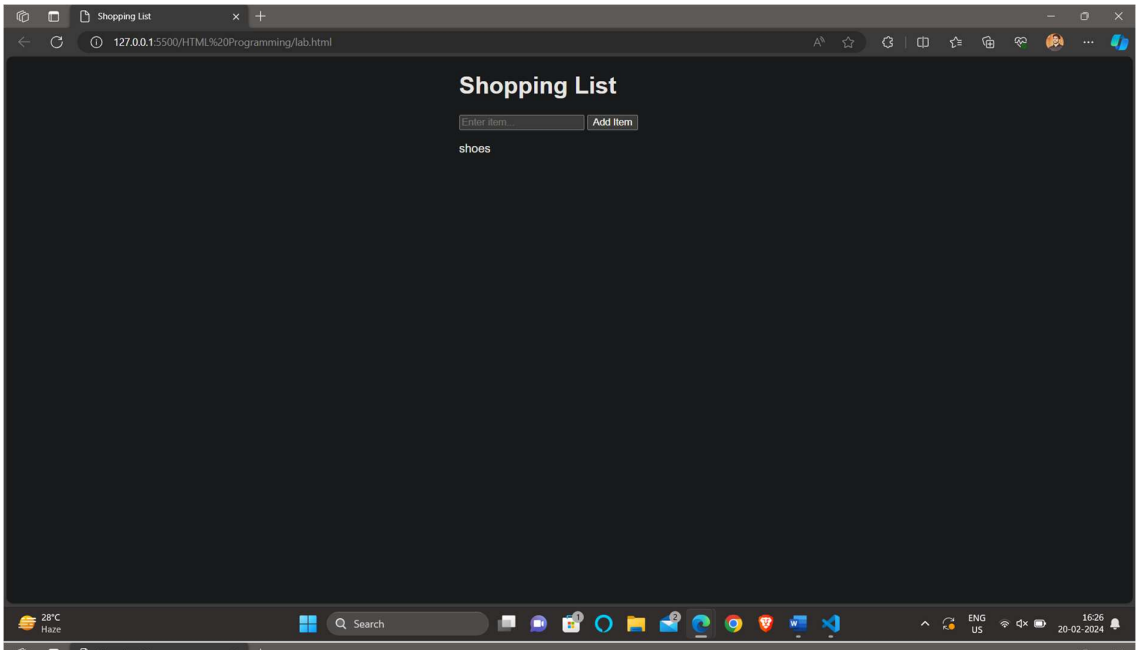
Simple prototype using HTML & Javascript

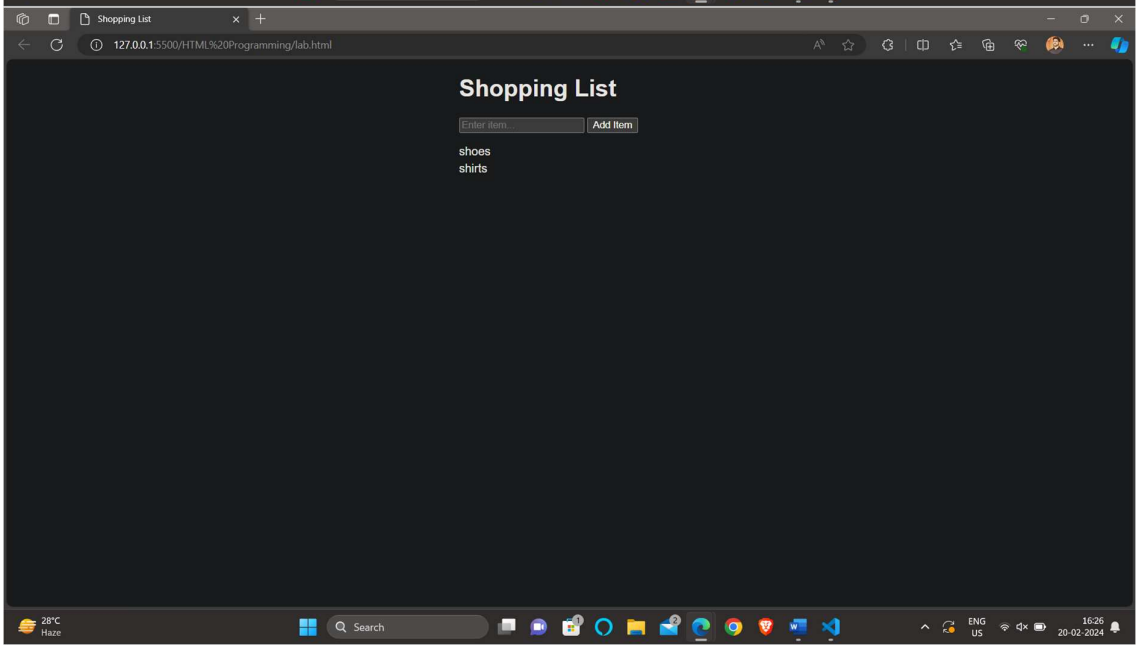
```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Shopping List</title>
<style>
    /* Some basic styling for the shopping list */
    body {
        font-family: Arial, sans-serif;
    }
    #container {
        width: 300px;
        margin: 20px auto;
    }
    ul {
        list-style-type: none;
        padding: 0;
    }
    li {
        margin-bottom: 5px;
    }
    .purchased {
        text-decoration: line-through;
    }
</style>
</head>
<body>
<div id="container">
    <h1>Shopping List</h1>
    <input type="text" id="item" placeholder="Enter item...">
```

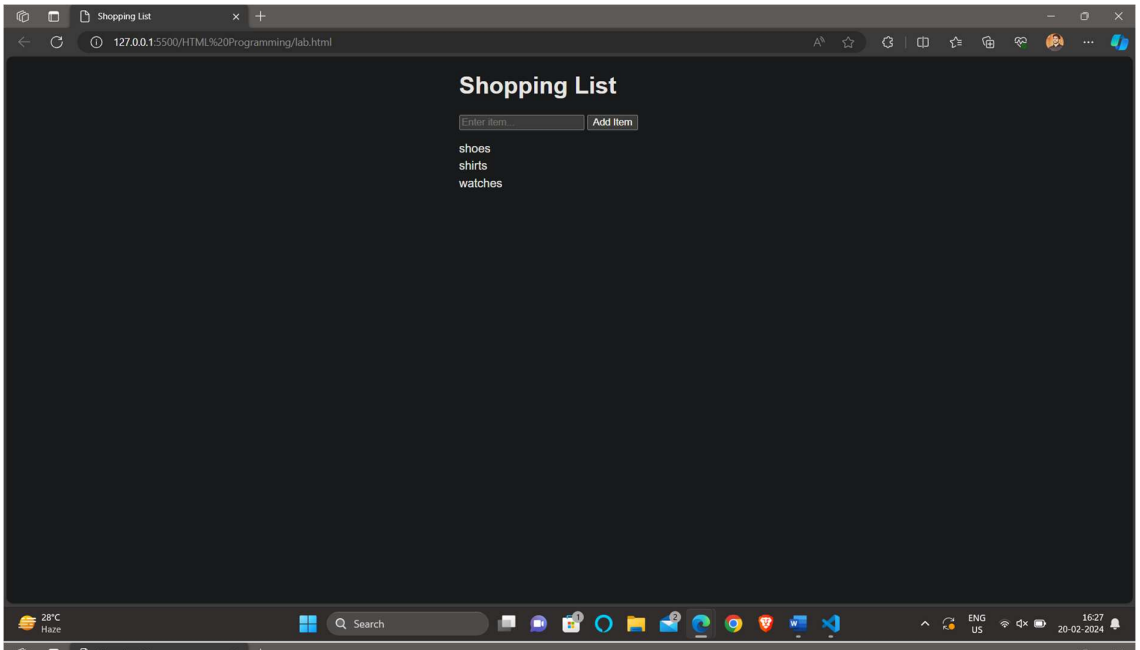
```
    <button onclick="addItem()">Add Item</button>
    <ul id="shopping-list"></ul>
</div>

<script>
    function addItem() {
        var itemInput = document.getElementById("item");
        var itemName = itemInput.value.trim();

        if (itemName !== "") {
            var listItem = document.createElement("li");
            listItem.textContent = itemName;

            listItem.onclick = function() {
                listItem.classList.toggle("purchased");
            };

            document.getElementById("shopping-list").appendChild(listItem);
            itemInput.value = "";
        }
    }
</script>
</body>
</html>
```

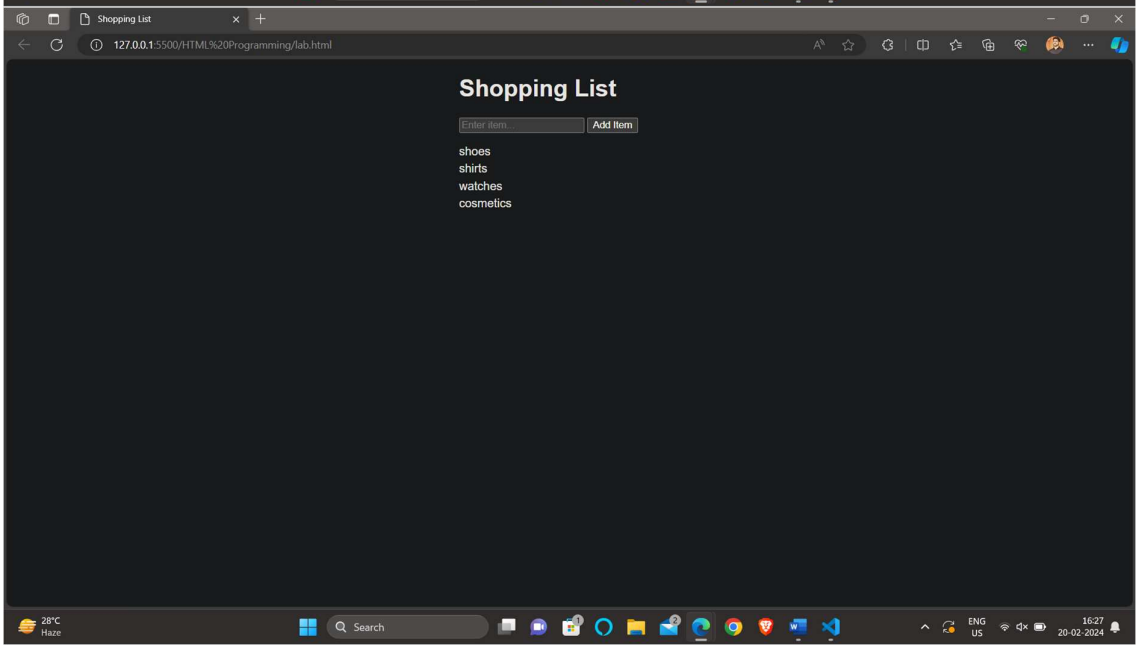
Output :

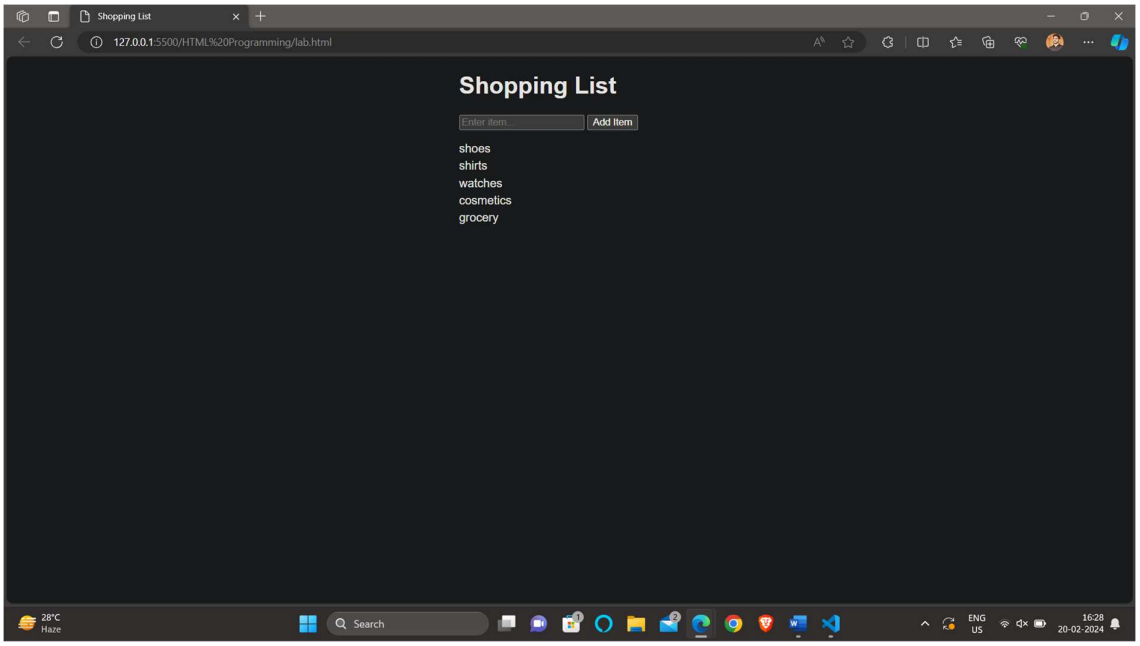



Shopping List
127.0.0.1:5500/HTML%20Programming/lab.html
Shopping List
Enter item...
Add Item
shoes
28°C
Haze
Search
ENG
US
16:26
20-02-2024


Shopping List
127.0.0.1:5500/HTML%20Programming/lab.html
Shopping List
Enter item...
Add Item
shoes
shirts
28°C
Haze
Search
ENG
US
16:26
20-02-2024


Shopping List
127.0.0.1:5500/HTML%20Programming/lab.html
Shopping List
Enter item...
Add Item
shoes
shirts
watches
28°C
Haze
Search
ENG
US
16:27
20-02-2024


Shopping List
127.0.0.1:5500/HTML%20Programming/lab.html
Shopping List
Enter item...
Add Item
shoes
shirts
watches
cosmetics
28°C
Haze
Search
ENG
US
16:27
20-02-2024



Code :

MVC Based prototype :

HTML Structure for our MVC Prototype:

In this HTML file, I have removed the JavaScript code and added a reference to a controller.js file, which will contain our controller logic.

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Shopping List MVC</title>
<style>
    /* Some basic styling for the shopping list */
    body {
        font-family: Arial, sans-serif;
    }
    #container {
        width: 300px;
        margin: 20px auto;
    }
    ul {
        list-style-type: none;
        padding: 0;
    }
```

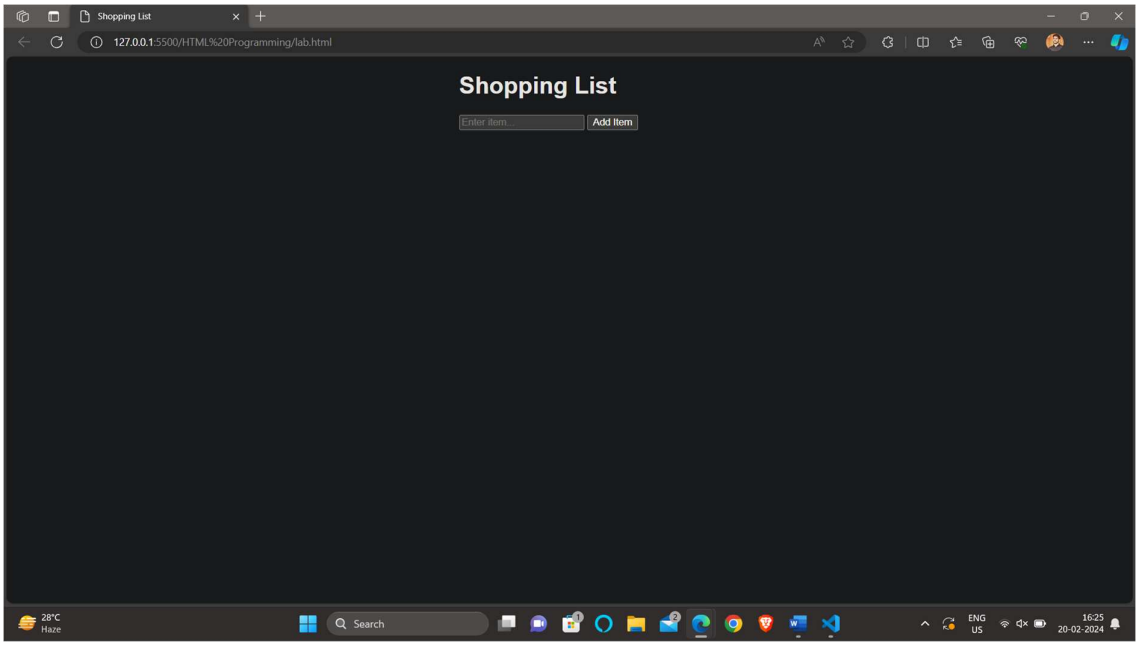
```
    li {
        margin-bottom: 5px;
    }
    .purchased {
        text-decoration: line-through;
    }
</style>
</head>
<body>
<div id="container">
    <h1>Shopping List MVC</h1>
    <input type="text" id="item" placeholder="Enter item...">
    <button id="addItemBtn">Add Item</button>
    <ul id="shopping-list"></ul>
</div>

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

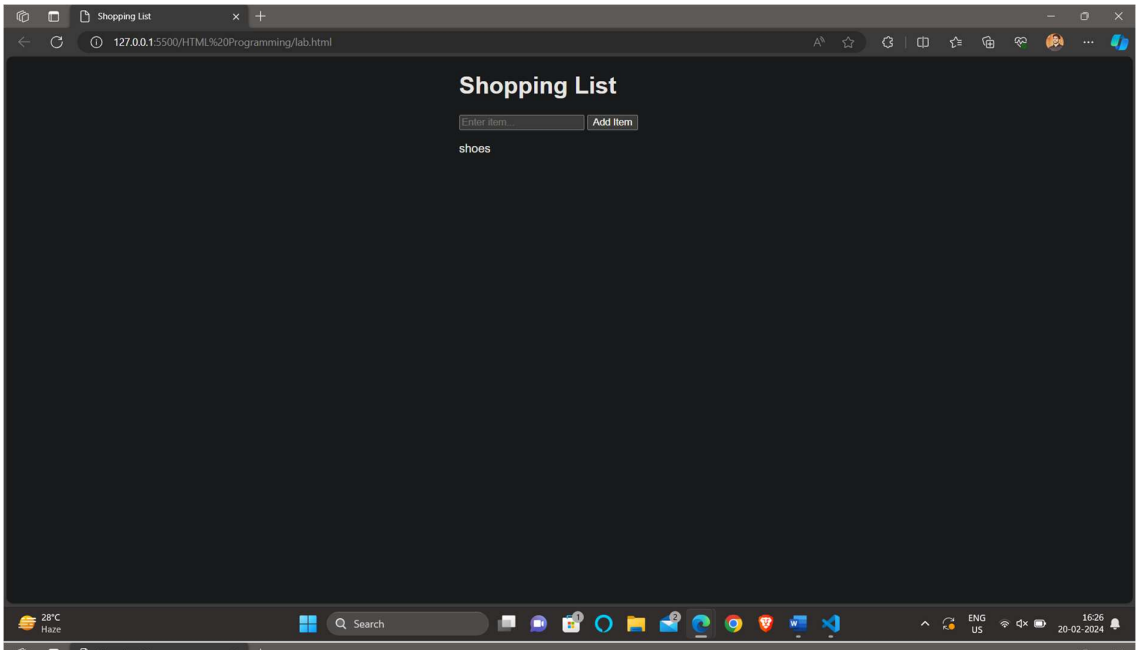
controller.js file:

```
// Controller Logic

// Initialize the shopping list model
var shoppingList = [];

// Function to add item to the shopping list
function addItem(itemName) {
    if (itemName.trim() !== "") {
        shoppingList.push({
            name: itemName,
            purchased: false
        });
    }
}

// Function to toggle item's purchased status
function togglePurchased(index) {
    shoppingList[index].purchased = !shoppingList[index].purchased;
}

// Function to render the shopping list
function renderShoppingList() {
    var shoppingListElement = document.getElementById("shopping-list");
    shoppingListElement.innerHTML = "";
```

```
    shoppingList.forEach(function(item, index) {
        var listItem = document.createElement("li");
        listItem.textContent = item.name;
        if (item.purchased) {
            listItem.classList.add("purchased");
        }

        listItem.onclick = function() {
            togglePurchased(index);
            renderShoppingList();
        };

        shoppingListElement.appendChild(listItem);
    });
}

// Function to handle adding item event
function handleAddItem() {
    var itemInput = document.getElementById("item");
    var itemName = itemInput.value;
    addItem(itemName);
    renderShoppingList();
    itemInput.value = "";
}

// Event listener for adding item button click
document.getElementById("addItemBtn").addEventListener("click",
handleAddItem);

// Initial rendering of the shopping list
renderShoppingList();
```

Output :


Shopping List
127.0.0.1:5500/HTML%20Programming/lab.html
Shopping List
Enter item...
Add Item
28°C
Haze
Search
ENG
US
16:25
20-02-2024


Shopping List
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Shopping List
Enter item...
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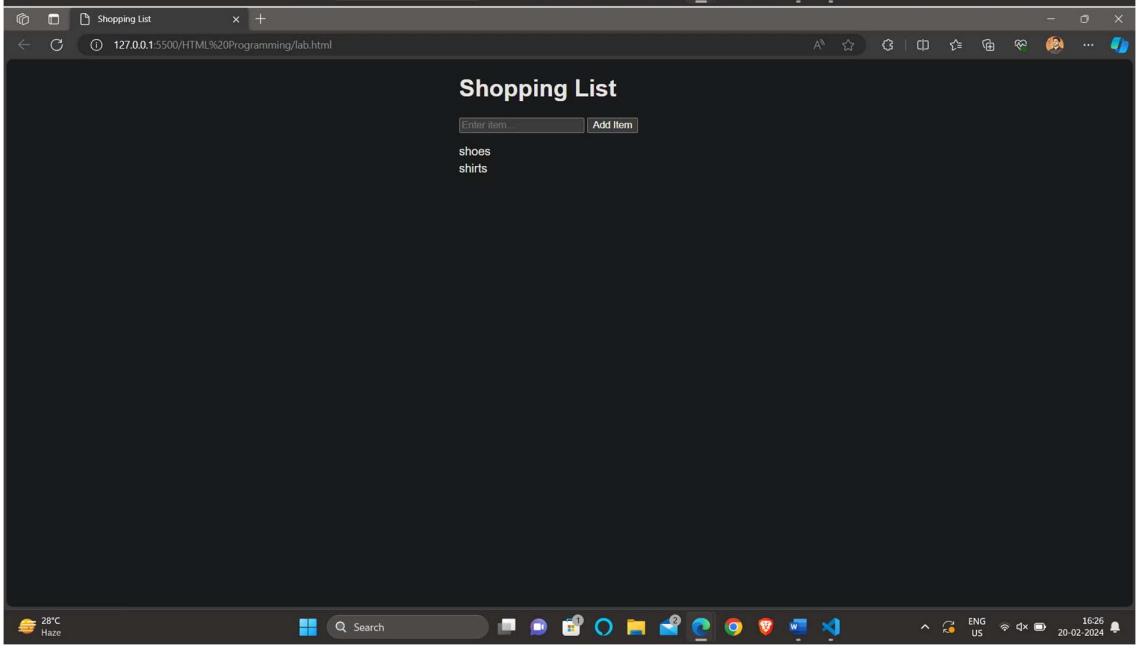
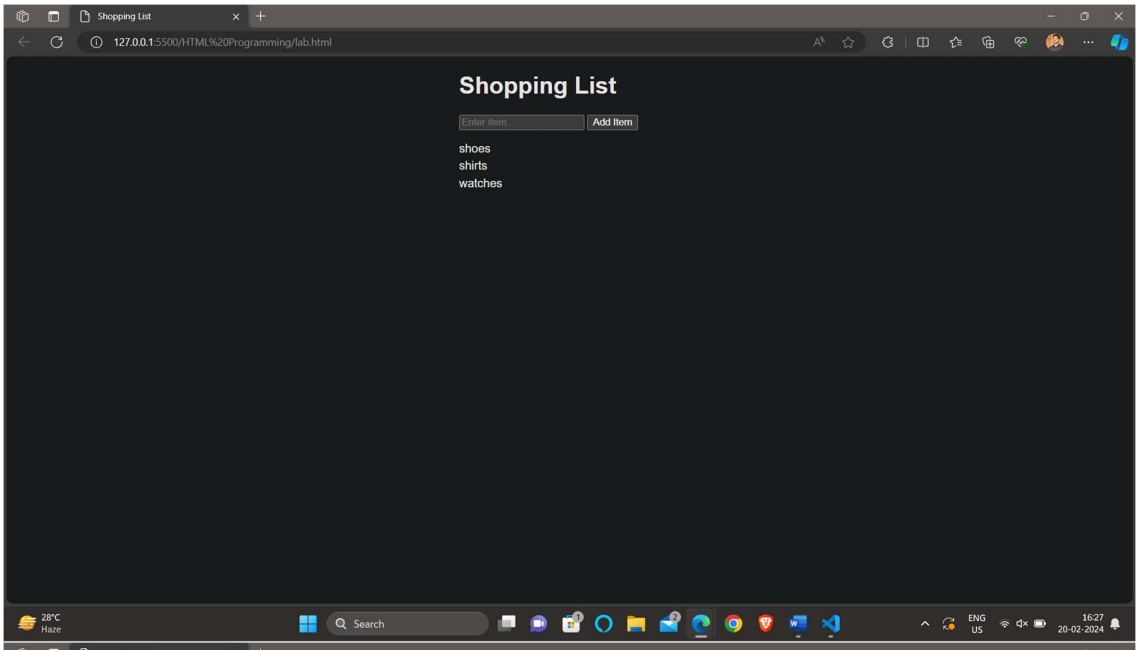

Shopping List
127.0.0.1:5500/HTML%20Programming/lab.html
Shopping List
Enter item...
Add Item
shoes
shirts
28°C
Haze
Search
ENG
US
16:26
20-02-2024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Enter item...
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shoes
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US
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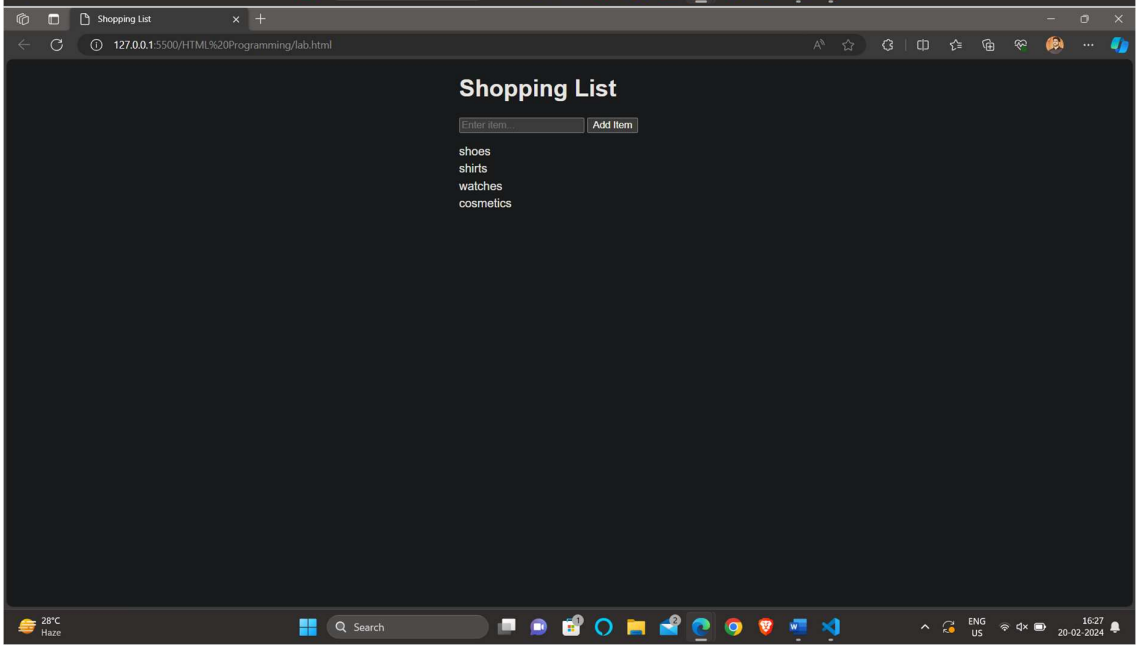
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Enter item...
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shoes
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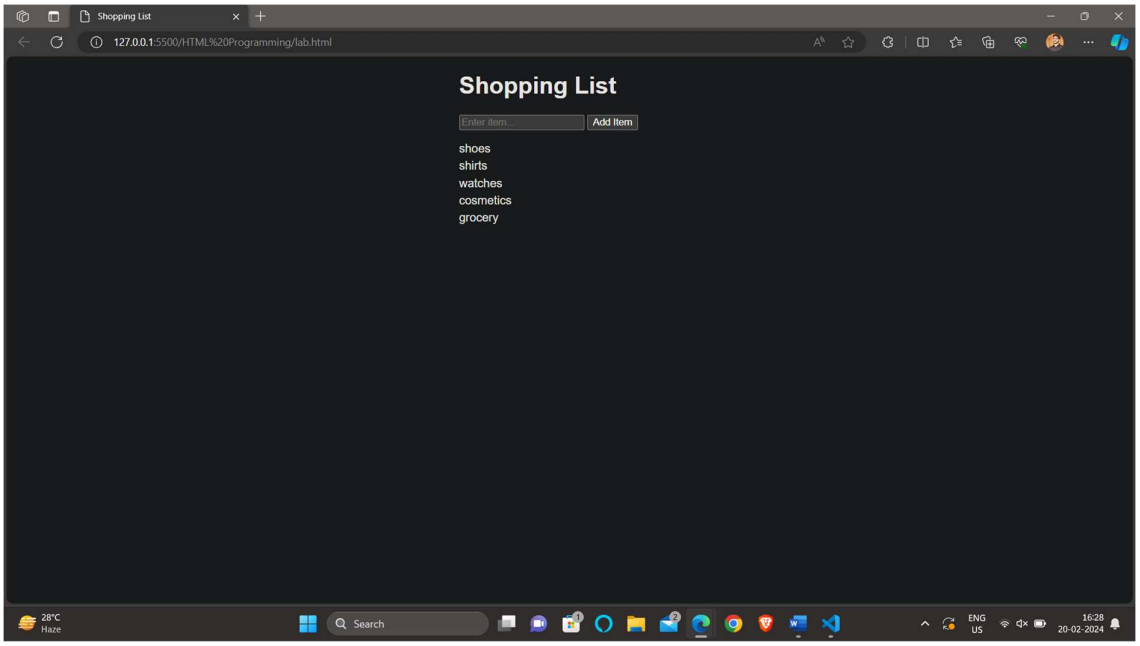
Search
ENG
US
16:27
20-02-2024


Shopping List
127.0.0.1:5500/HTML%20Programming/lab.html
Shopping List
Enter item...
Add Item
shoes
shirts
watches
cosmetics
grocery
28°C
Haze
Search
ENG
US
16:28
20-02-2024