**WEB ENGINEERING**

**ASSIGNMENT # 02**



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# **NATIONAL UNIVERSITY OF MODERN LANGUAGES, ISLAMABAD**

Create a basic HTML structure with input fields, buttons, and a display area for the to-do list.

Use CSS to style the elements, making the interface visually appealing.

Implement JavaScript functionality to:

* Add tasks to the to-do list when the user enters a task and clicks an "Add" button.
* Display the list of tasks with checkboxes to mark tasks as completed.
* Allow users to mark tasks as completed by checking the checkboxes.
* Provide an option to remove tasks from the list.
* Include validation to prevent empty task submissions.

The sample output is attached below:

**CODE**

<!DOCTYPE *html*>

<html *lang*="en">

<head>

    <meta *charset*="UTF-8">

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

    <title>To-Do List</title>

    <style>

        body {

            font-family: Arial, sans-serif;

            background-color: #f4f4f4;

            margin: 0;

            display: flex;

            align-items: center;

            justify-content: center;

            height: 100vh;

        }

*#todo-container* {

            width: 300px;

            background-color: #fff;

            border-radius: 8px;

            padding: 20px;

            box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);

        }

        input[*type*="text"] {

            width: 100%;

            padding: 8px;

            margin-bottom: 10px;

            box-sizing: border-box;

        }

        button {

            background-color: #4caf50;

            color: white;

            padding: 8px 16px;

            border: none;

            border-radius: 4px;

            cursor: pointer;

        }

        button*:hover* {

            background-color: #45a049;

        }

        ul {

            list-style-type: none;

            padding: 0;

        }

        li {

            margin-bottom: 8px;

        }

        label {

            display: flex;

            align-items: center;

        }

        input[*type*="checkbox"] {

            margin-right: 8px;

        }

    </style>

</head>

<body>

<div *id*="todo-container">

    <h2>To-Do List</h2>

    <input *type*="text" *id*="taskInput" *placeholder*="Enter a new task">

    <button *onclick*="addTask()">Add</button>

    <ul *id*="taskList"></ul>

</div>

<script>

    function addTask() {

        var taskInput = document.getElementById("taskInput");

        var taskList = document.getElementById("taskList");

        var taskText = taskInput.value.trim();

        if (taskText === "") {

            alert("Please enter a task");

            return;

        }

        var listItem = document.createElement("li");

        var checkbox = document.createElement("input");

        checkbox.type = "checkbox";

        checkbox.addEventListener("change", function () {

            updateTaskStatus(listItem, checkbox);

        });

        var label = document.createElement("label");

        label.appendChild(checkbox);

        label.appendChild(document.createTextNode(taskText));

        var deleteButton = document.createElement("button");

        deleteButton.innerHTML = "Delete";

        deleteButton.addEventListener("click", function () {

            removeTask(listItem);

        });

        listItem.appendChild(label);

        listItem.appendChild(deleteButton);

        taskList.appendChild(listItem);

        taskInput.value = "";

    }

    function updateTaskStatus(*listItem*, *checkbox*) {

        if (*checkbox*.checked) {

*listItem*.style.textDecoration = "line-through";

        } else {

*listItem*.style.textDecoration = "none";

        }

    }

    function removeTask(*listItem*) {

        var taskList = document.getElementById("taskList");

        taskList.removeChild(*listItem*);

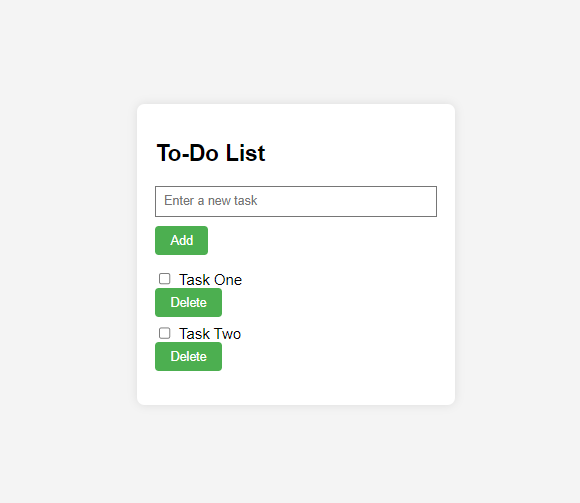
    }

</script>

</body>

</html>

**OUTPUT**

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