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MEMORY GAME JAVASCRIPT

Aim:

To design an interactive online memory game for the kids to play with.

Program code:

index.html

```
<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <link rel="stylesheet" href="style.css">
    <title>Memory Game</title>
</head>

<body onload="generate_board()">
    <main>
        <div class="container">
            <h2>Memory Game</h2>
            <div class="game">
            </div>
            <button class="reset" onclick="window.location.reload(); generate_board()">Reset
Game</button>
        </div>
    </main>

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

</html>
```

style.css

```
*{
    margin: 0;
    padding: 0;
        box-sizing: border-box;
        font-family: monospace;
    }

    body {
        display: flex;
        justify-content: center;
```

```
        align-items: center;
        min-height: 100vh;
        background: green;
    }

    .container {
        position: relative;
        display: flex;
        flex-direction: column;
        justify-content: center;
        align-items: center;
        gap: 30px;
        background: darkgreen;
        padding: 40px 60px;
    }

    h2 {
        font-size: 3em;
        color: white;
        text-transform: uppercase;
        letter-spacing: 0.1em;
    }

    .reset {
        padding: 15px 20px;
        color: green;
        background: white;
        border: none;
        cursor: pointer;
    }

    .reset:hover {
        color: white;
        background: green;
    }

    .game {
        width: 440px;
        height: 440px;
        display: flex;
        flex-wrap: wrap;
        gap: 10px;
        transform-style: preserve-3d;
}
.item {
    position: relative;
    width: 100px;
    height: 100px;
    display: flex;
    justify-content: center;
    align-items: center;
    font-size: 5em;
```

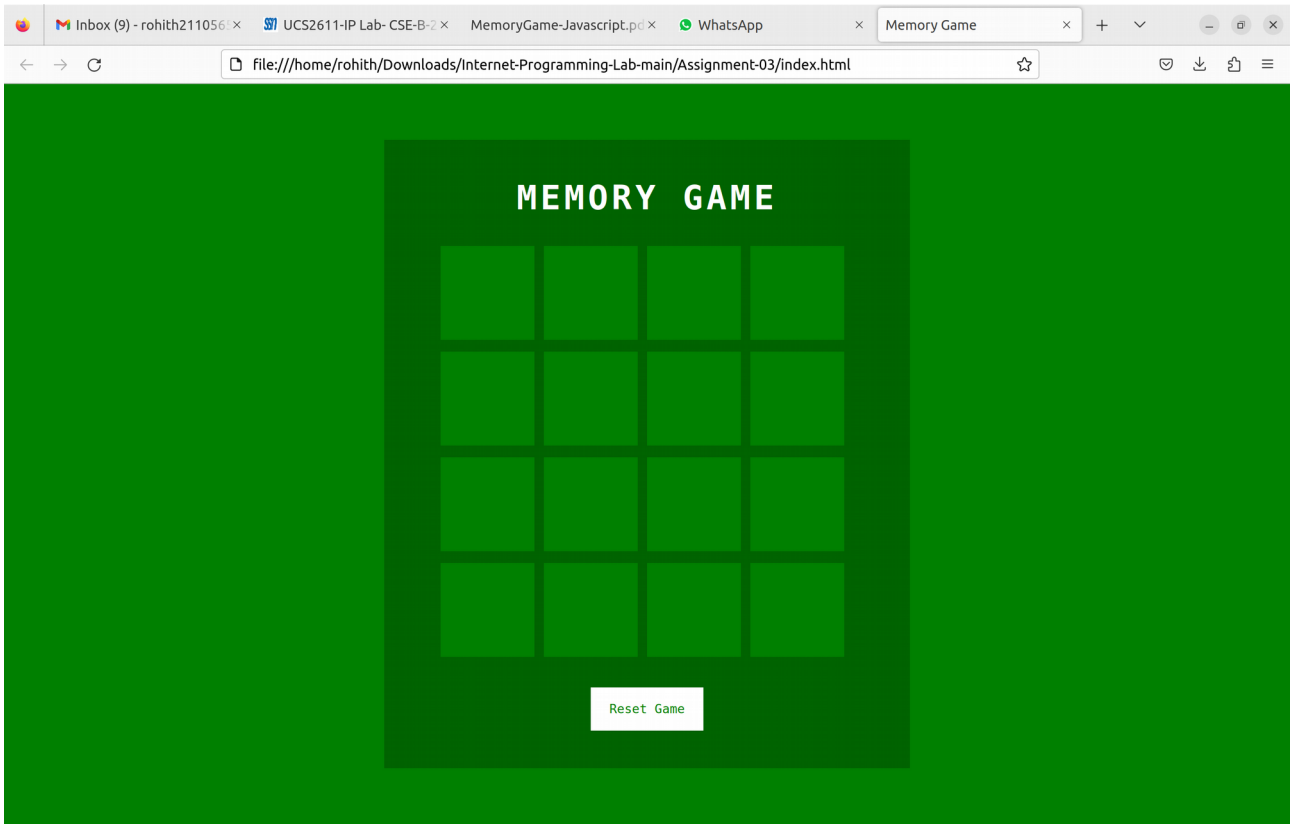
```
    background-color: white;
    transform: 0.25s;
}

.item.boxOpen {
    transform: rotateY(0deg);
}

.item::after {
    content: "";
    position: absolute;
    inset: 0;
    background: green;
    transition: 0.55s;
    transform: rotateY(0deg);
    /* opacity: 0.5; */
    backface-visibility: hidden;
}

.boxOpen::after,
.boxMatch::after {
    transform: rotateY(180deg);
}
```

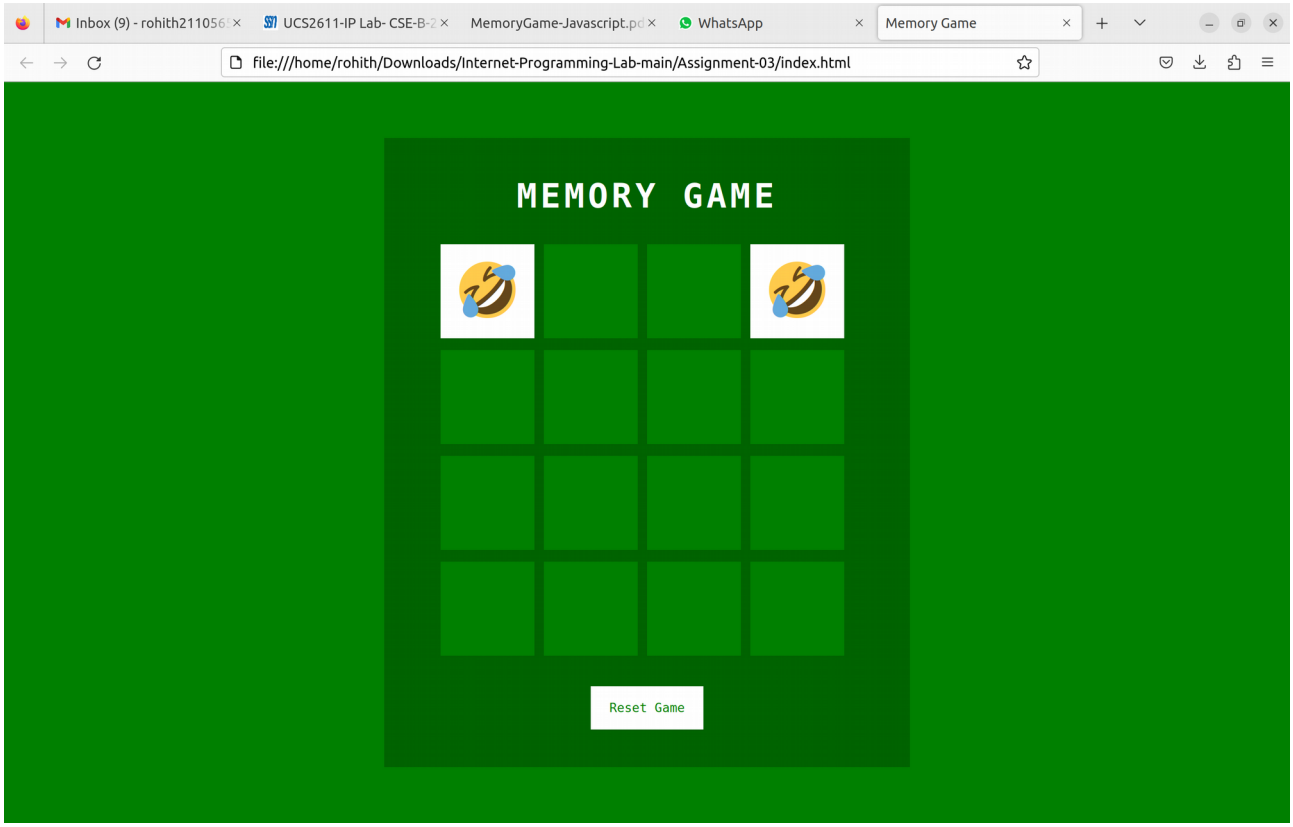
script.js

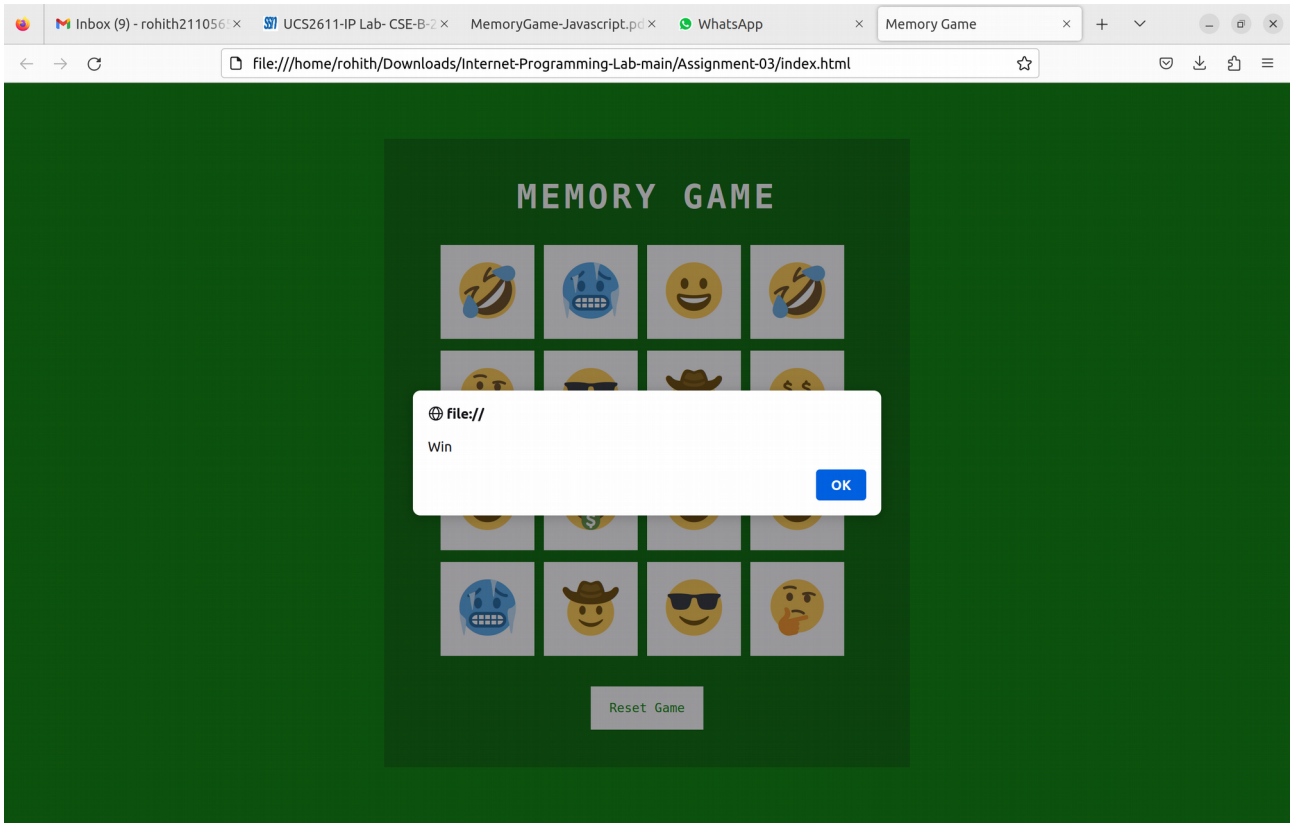
```
const emojis = ["😀","😀", "😎", "😎","","","","", "", "", "", "", "", "", "", ""];

function shuffle(array) {
    for (let i = array.length - 1; i > 0; i--) {
        const j = Math.floor(Math.random() * (i + 1));
        [array[i], array[j]] = [array[j], array[i]];
    }
    return array;
}

function generate_board() {
    const shuffledEmojis = shuffle(emojis);
    for (let i = 0; i < shuffledEmojis.length; i++) {
        let box = document.createElement('div');
        box.className = 'item';
        box.innerHTML = shuffledEmojis[i];
        box.onclick = function () {
            this.classList.add('boxOpen');
            setTimeout(function () {
                if (document.querySelectorAll('.boxOpen').length > 1) {
                    if (document.querySelectorAll('.boxOpen')[0].innerHTML ==
document.querySelectorAll('.boxOpen')[1].innerHTML) {
                        document.querySelectorAll('.boxOpen')[0].classList.add('boxMatch');
                        document.querySelectorAll('.boxOpen')[1].classList.add('boxMatch');

                        document.querySelectorAll('.boxOpen')[1].classList.remove('boxOpen');
```

```
                document.querySelectorAll('.boxOpen')[0].classList.remove('boxOpen');


                if (document.querySelectorAll('.boxMatch').length == emojis.length) {
                    alert('Win');
                }
            } else {
                document.querySelectorAll('.boxOpen')[1].classList.remove('boxOpen');
                 document.querySelectorAll('.boxOpen')[0].classList.remove('boxOpen');
            }
        }
    }, 300);
  };
  document.querySelector('.game').appendChild(box);
 }
}
```

Output:







Learning Outcomes:

HTML5, CSS3, Javascript Technologies were used to build this game.