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| --- | --- |
| **Name : Vedant Kulkarni** | **Roll No. : 42438** |
| **Division : BE 8** | **Batch : Q8** |
| **Subject : Javascript** | **Date :** |

Experiment 7: Append an object to an array and will check if an object is an array.

CODE:

1. **HTML**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>Experiment 7</title>

    <style>

        #tablestyle {

            font-family: 'Times New Roman', Times, serif;

            border-collapse: collapse;

            width: 20%;

        }

        #tablestyle td, #tablestyle th {

            border: 1px solid;

            padding: 8px;

            background-color: #dbfecf;

        }

    </style>

</head>

<body id = "body" style = "text-align:center;">

    <H1>JavaScript Experiment 7</H1>

    <H3>Name: Vedant Kulkarni <br> Roll No: 42438 <br> Batch: Q8</H3>

    Please enter the Array to begin operations

    <br><br>

    <h3>Enter the Array</h3>

    Enter the length of the array:

    <input id="arrlen" placeholder="Array Length">

    <br><br>

    Enter an Element and click add element:

    <input id="arrEle" placeholder="Array Element">

    <br><br>

    <button id = "AddElement" onclick = "AddElement()">Add Element</button>

    <br><br>

    The Array is now: <b><span id="ArrOut">Empty Array</span></b>

    <br><br>

    <hr>

    <h3>Enter the Object</h3>

    Enter the key-value pair of the object:

    <br><br>

    Enter the key:

    <input id="ObjKey" placeholder="Object Key">

    <br><br>

    Enter the value:

    <input id="ObjVal" placeholder="Object Value">

    <br><br>

    <button id = "AddOBj" onclick = "AddObj()">Add Object</button>

    <br><br>

    <hr>

    <h3>View Array Elements</h3>

    Click the button to generate the table

    <button id = "checkArray" onclick = "checkArray()">Check Array</button>

    <br><br>

    <span id="TableOutput"></span>

    <hr>

    <button id = "reset" onclick = "window.location.reload()">reset</button>

    <script>

        const Arr = new Array();

        function AddElement() {

            let Element = document.getElementById("arrEle").value;

            let len = document.getElementById("arrlen").value;

            if(Arr.length >= len) {

                alert("You are trying to Add more elements than the Array Length!")

            } else {

                Arr.push(Element);

                document.getElementById("ArrOut").innerHTML = JSON.stringify(Arr);

            }

        }

        function AddObj() {

            var obj = new Object();

            let key = document.getElementById("ObjKey").value;

            let val = document.getElementById("ObjVal").value;

            let len = document.getElementById("arrlen").value;

            obj.key = key;

            obj.val = val;

            if(Arr.length >= len) {

                alert("You are trying to Add more elements than the Array Length!");

            } else {

                Arr.push(obj);

                document.getElementById("ArrOut").innerHTML = JSON.stringify(Arr);

            }

        }

        function checkArray() {

            var table;

            table='<center><table id="tablestyle" style="text-align: center"><tr><td>Sr. No.</td><td>Element</td><td>Type Of Element</td><td>Is Array?</td></tr>';

            for(i = 0;i < Arr.length; i++){

                table += '<tr><td>'+(i+1)+'</td><td>'+JSON.stringify(Arr[i])+'</td><td>'+typeof(Arr[i])+'</td><td>'+Array.isArray(Arr[i])+'</td></tr>';

            }

            table += '</table></center>';

            document.getElementById("TableOutput").innerHTML = table;

        }

    </script></body></html>