JAVASCRIPT

- Arrays
- Declaring and Allocating Array
- Types of Array

Arrays

- **`Array`** inherits from **`Object`**.
- Indexes are converted to strings and used as names for retrieving values.
- One advantage: No need to provide a length or type when creating an array.

Declaring and Allocating Arrays

- JavaScript arrays are Array objects.
- Creating new objects using the new operator is known as creating an instance or instantiating an object
- Operator new is known as the dynamic memory allocation operator

Declare + Initialize Arrays

var array_name=[“a”,”b”,”c”];

Using the JavaScript Keyword new

// Declaration

var arr_name=new Array();

//initializtion

var arr_name=new Array[“ram”,”anu”,”abi”];

Types of Array

- Associative Array
- Index Array

Associative Array

(keys and values)

```
<script type=“text/javascript”>
        var person={firstname: “anu”, lastName:”ram”};
        document.write(person[“firstname]);
</script>
```

Output: anu

Indexing Array

Array elements are accessed using the index number:

```
var  ary = [“A” , “B” , “C” , “D” , “E” , “F”];
document.write(ary[4]);
```

Output : E

Using Loop

```
<script type="text/javascript">
        var ary=["A","B", "C" , "D" , "E" , "F"];
        for(var i=0; i<ary.length; i++)
        document.write("<br />"+ary[i]);
</script>
```

Output:

A
B
C
D
E
F

Array Methods

- **Concat**
- **Join**
- **Push**
- **Pop**
- **UnShift**
- **Shift**
- **Sort**
- **Slice**
- **Splice**

PUSH

```
<script type=“text/javascript”>
      var ary=new Array[“A”,”B”,”C”,”D”];
      ary.push(“E”);
      document.write(ary);
</script>
```

Output: ABCDE

POP

Example:

```
<script type="text/javascript">
        var ary=["A", "B", "C", "D"];
        ary.pop();
        document.write(ary);
</script>
```

Output: ABC

Unshift

```
<script type=“text/javascript”>
      var ary=new Array[”B”,”C”,”D”];
      ary.unshift(“A”);
      document.write(ary);
</script>
```

Output: ABCD

shift

```
<script type="text/javascript">
    var ary=new Array("A","B","C","D");
    ary.shift();
    document.write(ary);
</script>
```

Output: BCD

slice

```
<script type=“text/javascript”>
      var ary=new Array[“A”,”B”,”C”,”D”];
      document.write(ary.slice(1));
</script>
```

Output: BCD

SPLICE

The **splice()** method can be used to add new items to an array and also Remove items from Array:

Add Values

```
<script type="text/javascript">
        var ary=["A","B","C","D","E"];
        ary.splice(2,0,"S","H");
        document.write(ary);
</script>
```

Output: A,B,S,H,C,D,E

Remove Values

```
<script type="text/javascript">
        var ary=["A","B","C","D","E"];
        ary.splice(2,2);
        document.write(ary);
</script>
```

Output: A,B,E

THANKS FOR WATCHING