

# ASSIGNMENT 11

## do-while and while loop

1) Write a JavaScript code for the following input

**Input:** var aos = ['mom', 'js', 'malayalam', 'html', 'csss', 'dad']

**Expected Output:** ['mom', 'dad', 'malayalam']

**Code:**

**Using for loop**

```
var arr = ["mom", "js", "malayalam", "css", "dad"];
var arr2 = [];
for (i = 0; i < arr.length; i++) {
    var str = "";
    for (j = arr[i].length - 1; j >= 0; j--) {
        str = str + arr[i][j];
    }
    if (arr[i] == str) {
        arr2.push(arr[i]);
    }
}
console.log(arr2);
```

**Using While loop**

```
var arr = ["mom", "js", "malayalam", "css", "dad"];
var arr2 = [];
i = 0;
while (i < arr.length) {
    var str = "";
    j = arr[i].length - 1;
    while (j >= 0) {
        str = str + arr[i][j];
        j--;
    }
    if (arr[i] == str) {
        arr2.push(arr[i]);
    }
    i++;
}
console.log(arr2);
```

**Output:**

['mom', 'malayalam', 'dad']

**Explanation:**

Here the array is ['mom', 'js', 'malayalam', 'css', 'dad'], using for loop for(i=0;i<arr.length;i++),it initializes i to 0 and start traversing the array from index 0 to 5.

At each index it checks whether the element is a palindrome or not, if it is a palindrome then it is pushed into the new array that arr2[]

To check whether the index element is a palindrome or not steps to be followed

- 1.Traverse the element from the reverse using for loop(for j=arr[i].length-1;j>=0;j--)
- 2.Take an empty string str = ''
- 3.Store each word from reverse traversing into the empty string str=str+arr[i][j]
- 4.After traversing entire element , check if str == arr[i], in case str == arr[i] then push arr[i] into new array that is arr2
- 5.Continue this process until you reach the end of array .