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Lab	Type	Practical
I.		Revision of JavaScript and ES6
LAB-8	A A A A B C	1. WAP to demonstrate <i>some</i> function of ES6. 2. WAP to create a numerical array containing number elements. You have to return a number greater than 50 using filter method. 3. WAP to create student name array and print each elements using ES6 for each method. 4. WAP to create numerical array and remove duplicate elements from the array using reduce method. 5. WAP to create a new array containing number of elements like color name in small letter (e.g. ['red', 'green', 'blue']) and convert each array element to Capitalized letter using map method. 6. WAP to perform CRUD operation on a static array using Javascript.

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Assignment 1: WAP to demonstrate some function of ES6.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<body>
  <script>
    let a = [1,3,6,5];
    console.log("Array : "+a);
    result = a.some((temp)=>{
      if(temp>5){
        return true;
      }
    });
    console.log("result :"+result);
  </script>
</body>
</html>
```

Assignment 1: Output

Array : 1,3,6,5
result :true

Assignment 2: WAP to create a numerical array containing number elements. You have to return a number greater than 50 using filter method.

```
<!DOCTYPE html>
< <!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<body>
  <script>
    let numbers = [12, 25, 36, 48, 52, 61, 75, 88, 91, 42];
    console.log("Array : "+numbers);
    result = numbers.filter((temp)=>{
      if(temp>50){
        return true;
      }
    });
    console.log("result :"+result);
  </script>
</body>
</html>
```

Assignment 2: Output

Array : 12,25,36,48,52,61,75,88,91,42
result :52,61,75,88,91

Assignment 3: WAP to create student name array and print each elements using ES6 for each method.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<body>
  <script>
    let studentNames = ["krunal", "samir", "vishant", "kishan", "viraj",
    "jash"];
    console.log("Array : "+studentNames);
    result = studentNames.forEach((temp,i)=>{
      console.log("value =",temp," : ","index =",i);
    });
  </script>
</body>
</html>
```

Assignment 3: Output

```
Array : krunal,samir,vishant,kishan,viraj,jash
value = krunal   :   index = 0
value = samir    :   index = 1
value = vishant  :   index = 2
value = kishan   :   index = 3
value = viraj    :   index = 4
value = jash     :   index = 5
```

Assignment 4: WAP to create numerical array and remove duplicate elements from the array using reduce method.

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

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>

<body>
  <script>
    const nums = [1, 2, 3, 4, 2, 3, 5, 1, 6, 7, 6, 8, 9, 8, 10];
    const unique = removeDuplicates(nums);
    console.log("Array:", nums);
    console.log("result:", unique);

    function removeDuplicates(array) {
      return array.reduce((collector, currentValue) => {
        if (!collector.includes(currentValue)) {
          collector.push(currentValue);
        }
        return collector;
      }, []);
    }

  </script>
</body>

</html>
```

Assignment 4: Output

Array : 1,2,3,4,5,2,3,1,6,7
result : 1,2,3,4,5,6,7

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Assignment 5: WAP to create a new array containing number of elements like color name in small letter (e.g. ['red', 'green', 'blue']) and convert each array element to Capitalized letter using map method.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<body>
  <script>
    let colors = ["red","green","blue"];
    console.log("Array : "+colors);
    result = colors.map((temp)=>{
      return temp.toUpperCase();
    });
    console.log("result :",result);
  </script>
</body>
</html>
```

Assignment 5: Output

Array : red,green,blue
result : ["RED", "GREEN", "BLUE"]

Assignment 6: WAP to perform CRUD operation on a static array using Javascript.

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

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>

<body>
  <script>
    let students = [];

    // CREATE
    function createStudent(name, age) {
      students.push({ name, age });
    }

    // READ
    function readStudents() {
      console.log(students);
    }

    // UPDATE
    function updateStudent(name, newAge) {
      for (let i = 0; i < students.length; i++) {
        if (students[i].name == name) {
          students[i].age = newAge;
          return;
        }
      }
    }

    // DELETE
    function deleteStudent(name) {
      students = students.filter(student => student.name != name);
    }

    createStudent("KD", 20);
    createStudent("PT", 19);
```


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```
createStudent("Darshan", 22);

readStudents();

updateStudent("KD", 23);
readStudents();

deleteStudent("Darshan");
readStudents();

</script>
</body>

</html>
```

Assignment 6: Output
[{"name": "KD","age": 20}, {"name": "PT","age": 19}, {"name": "Darshan","age": 22}]
[{"name": "KD","age": 23}, {"name": "PT","age": 19}, {"name": "Darshan","age": 22}]
[{"name": "KD","age": 23}, {"name": "PT","age": 19}]