#### GOVERNMENT COLLEGE OF ENGINEERING-THANJAVUR

# **ASSIGNMENT-3**

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YEAR : III

DEPT : COMPUTER SCIENCE AND ENGINEERING

SUBJECT CODE : CCS375

SUBJECT NAME : WEB TECHNOLOGIES

DATE : 29-02-2024

#### **PROGRAM:**

```
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="UTF-8">
 <meta name="viewport" content="width=device-width, initial-scale=1.0">
 <title>Document</title>
 <link rel="stylesheet" href="front.css">
</head>
<body>
 <div class="left" align="center">
         <a target="programs" href="palindrome.html">1.PALINDROME</a><br>
         <a target="programs" href="prime.html">2.PRIME</a><br>
         <a target="programs" href="listprime.html">3.LIST OF PRIME
NUMBERS</a><br>
         <a target="programs" href="minmax.html">4.MIN AND MAX IN
ARRAY</a><br>
         <a target="programs" href="fibonacci.html">5.FIBBONACCI SERIES</a><br/>
         <a target="programs" href="unique.html".html">6.UNIQUE ELEMENT IN AN
ARRAY</a><br>
```

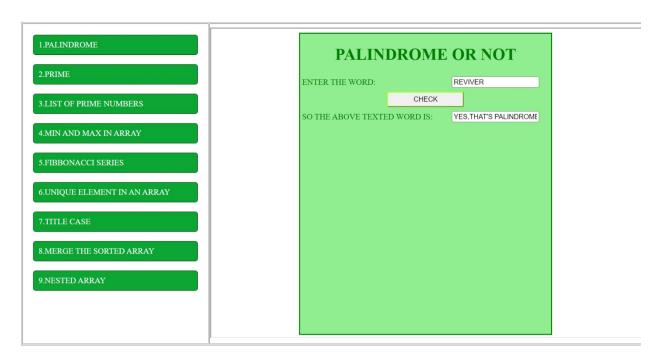
1.PALINDROME	
2.PRIME	
3.LIST OF PRIME NUMBERS	
4.MIN AND MAX IN ARRAY	
5.FIBBONACCI SERIES	
6.UNIQUE ELEMENT IN AN ARRAY	
7.TITLE CASE	
8.MERGE THE SORTED ARRAY	
9.NESTED ARRAY	

# 1. Write a JavaScript function to check if a given string is a palindrome.

```
<html>
  <head>
    <title>PALINDROME</title>
    <link rel="stylesheet" href="front.css">
    <script>
      function check()
      {
        var t1=document.getElementById("input").value;
        let str="";
        for(var i=t1.length;i>=0;i--)
           str=str+t1.charAt(i);
         }
        if(t1===str)
         {
           document.getElementById("result").value="YES,THAT'S PALINDROME";
         else
           document.getElementById("result").value="OOPs THAT'S NOT A
PALINDROME";
         }
```

```
}
  </script>
 </head>
 <body>
  <div class="bor" align="center" >
   <form>
     <caption><h1>PALINDROME OR NOT</h1></caption>
<label>ENTER THE WORD:</label>
       <input type="text" id="input">
      <input class="button" type="button" value="CHECK" onclick="check()">
       SO THE ABOVE TEXTED WORD IS:
```

```
</form>
</div>
</body>
</html>
```



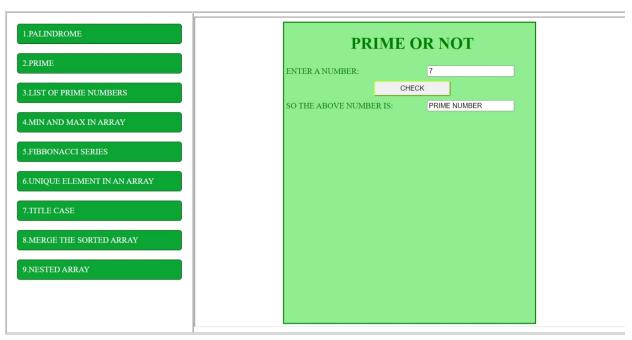
# 2. Write a JavaScript function to check if a given number is prime.

```
<html>
<head>
<title>PRIME NUMBER</title>
link rel="stylesheet" href="front.css">
<script>
function check()
```

```
var t1=document.getElementById("input").value;
 var n=0;
 if(t1>0)
   for(var i=1;i<=t1;i++)
   if(t1%i===0)
      n++;
   if(n<=2)
      document.getElementById("output").value="PRIME NUMBER";
    }
    else
      document.getElementById("output").value="NOT A PRIME NUMBER";
 else if(t1==0)
alert("ZERO is not a prime and not a composite number");
 else
   alert("INVALID SYNTAX");
```

```
}
   </script>
 </head>
 <body>
  <div class="bor" align="center" >
    <form>
    <caption><h1>PRIME OR NOT</h1></caption>
      <label>ENTER A NUMBER:</label>
       <input type="text" id="input">
      <input class="button" type="button" id="q"
value="CHECK" onclick="check()">
     <label>SO THE ABOVE NUMBER IS:</label>
       <input type="text" id="output">
```

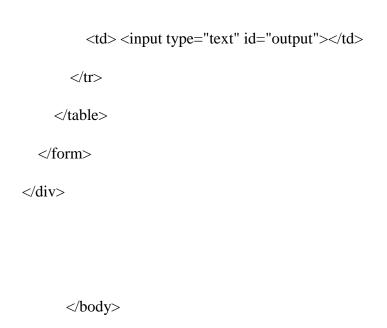




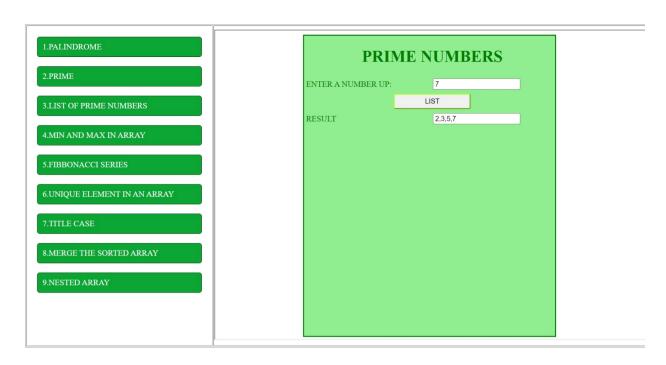
3. Write a java script function to display the list of prime numbers from 1 to  ${\bf n}$ .

```
<script>
  function show()
  {
  var arr=[];
  var n=document.getElementById("input").value;
  var flag=0;
  var lv=0;
    if(n>0)
     for(var i=1;i<=n;i++)
     {
       for( var j=1;j<=i;j++)
       {
       if(i%j==0)
         flag++;
     }
     if(i!=1 && flag<=2)
       arr[lv++]=i;
     }
     flag=0;
      }
```

```
else
      alert("erroer");
    document.getElementById("output").value=arr;
    }
   </script>
 </head>
 <body>
   <div class="bor" align="center" >
    <form>
   <caption><h1>PRIME NUMBERS</h1></caption>
    <label>ENTER A NUMBER UP:</label>
      <input type="text" id="input"> 
    <input class="button" type="button"
onclick="show()" value="LIST">
    RESULT
```



</html>

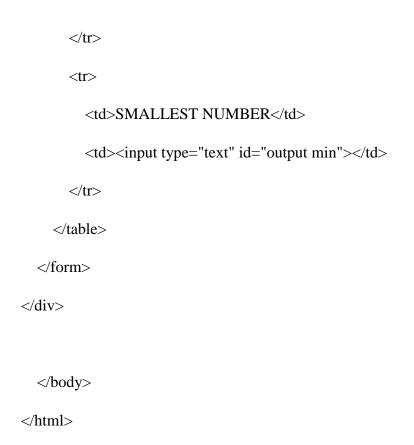


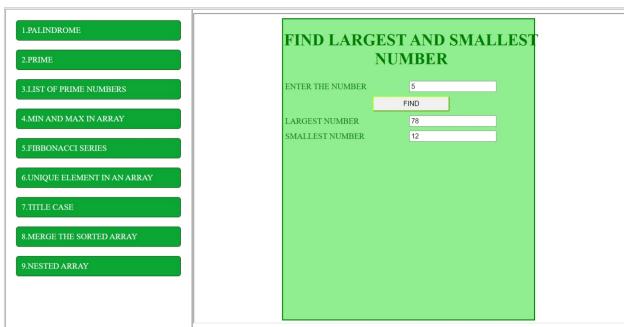
4. Given an array of numbers, write a function to find the largest and smallest numbers in the array.

<html>
<head>
<title>LARGEST AND SMALLEST NUMBERS</title>

```
<link rel="stylesheet" href="front.css">
<script>
  function find()
  {
    var arr=new Array();
    var n=document.getElementById("input").value;
    for(var i=0;i<n;i++)
       arr[i]=Number(window.prompt("Enter the Array Element "+(i+1)));
     }
    for(var i=0;i<n;i++)
     {
       for(var j=0;j<n;j++)
       {
         if(arr[j]>arr[j+1])
            temp=arr[j];
            arr[j]=arr[j+1];
            arr[j+1]=temp;
```

```
alert(arr);
      document.getElementById("output max").value=arr[arr.length-1];
      document.getElementById("output min").value=arr[0];
    }
   </script>
 </head>
 <body>
   <div class="bor" align="center" >
    <form>
   <caption><h1>FIND LARGEST AND SMALLEST NUMBER</h1></caption>
    ENTER THE NUMBER
      <input type="text" id="input">
    <input class="button" type="button" onclick="find()"
value="FIND">
    LARGEST NUMBER
      <input type="text" id="output max">
```





5. Write a JavaScript function that returns the Fibonacci sequence up to a given number of terms.

```
<html>
 <head>
   <title>FIBBONACCI SERIES</title>
   <link rel="stylesheet" href="front.css">
 </head>
 <body>
   <div class="bor" align="center" >
   <form>
   <caption><h1><h1>FIBONOCCI SERIES</h1></h1></caption>
    ENTER THE NUMBER
      <input type="text" id="input">
     <input class="button" type="button"
onclick="fibbo()" value="FIBBO SERIES">
    THE FIBBONACCI SERIES IS:
      <input type="text" id="output">
```

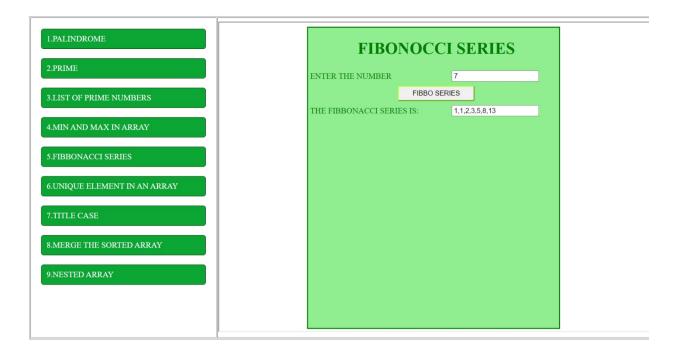
```
</form>
</div>
    <script>
      function fibbo()
       {
         var n=document.getElementById("input").value;
         var t1=0,t2=1;
         var t3;
         var arr=new Array();
        if(n>0)
           for(var i=0;i<n;i++)
             arr.push(t2);
             t3=t1+t2;
             t1=t2;
             t2=t3;
           }
         document.getElementById("output").value=arr;\\
         }
         else
```

```
alert("Give me a Number");
}
   </script>
 </body>
</html>
<html>
 <head>
   <title>FIBBONACCI SERIES</title>
   <link rel="stylesheet" href="front.css">
 </head>
 <body>
   <div class="bor" align="center" >
   <form>
   <caption><h1><h1>FIBONOCCI SERIES</h1></h1></caption>
     ENTER THE NUMBER
      <input type="text" id="input">
```

```
 <input class="button" type="button"
onclick="fibbo()" value="FIBBO SERIES">
     THE FIBBONACCI SERIES IS:
       <input type="text" id="output">
     </form>
</div>
   <script>
     function fibbo()
     {
       var n=document.getElementById("input").value;
       var t1=0,t2=1;
       var t3;
       var arr=new Array();
       if(n>0)
       {
         for(var i=0;i<n;i++)
           arr.push(t2);
```

```
t3=t1+t2;
t1=t2;
t2=t3;
}
document.getElementById("output").value=arr;
}
else
alert("Give me a Number");

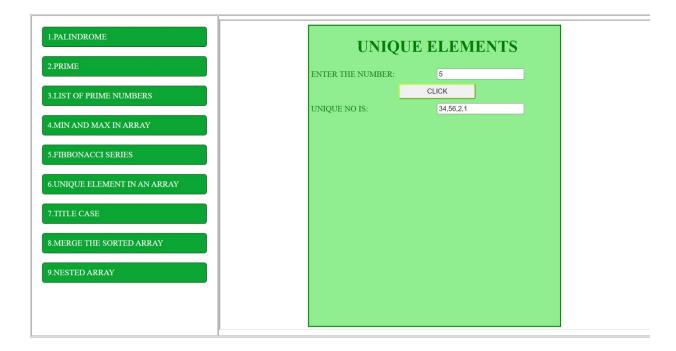
//script>
</body>
</html>
```



6. Write a function that takes an array of integers as input and returns a new array with only the unique elements.

```
<html>
  <head>
    <title>UNIQUE</title>
    <link rel="stylesheet" href="front.css">
    <script>
      function unique()
       {
         var arr1=new Array();
         var arr2=new Array();
         var n=document.getElementById("input").value;
         var temp=0;
         for(var i=0;i<n;i++)
         {
           arr1[i]=parseInt(window.prompt("enter the value"+(i+1)));
         for(var i=0;i<n;i++)
           if(i==0)
           arr2.push(arr1[i]);
           for(j=0;j<arr2.length;j++)
            {
```

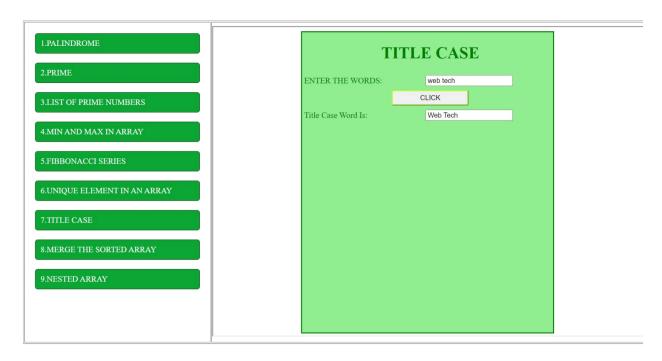
```
if(arr1[i]==arr2[j])
        temp++
       }
      if(temp==0)
      arr2.push(arr1[i]);
     temp=0;
     document.getElementById("output").value=arr2;
     }
 </script>
</head>
<body>
 <div class="bor" align="center" >
   <form>
   <caption> <h1>UNIQUE ELEMENTS</h1></caption>
     <label for="">ENTER THE NUMBER:</label>
      <input type="text" id="input">
```



# 7. Write a JavaScript program to convert a string to title case.

```
<html>
  <head>
     <title>title case</title>
     <link rel="stylesheet" href="front.css">
     <script>
       function tcase()
       {
          var n;
          var str=document.getElementById("input").value;
          n=str.length;
         var t1;
          var t2;
          var string="";
         t1=0;
         for(var i=0;i<n;i++)
          {
            if(str.charAt(i)==" ")
            {
              t1=0;
```

```
else if(t1==0)
       string=string+(str.charAt(i).toUpperCase());
       t1++;
       continue;
      string=string+str.charAt(i);
     document.getElementById("output").value=string;
   }
 </script>
</head>
<body>
 <div class="bor" align="center" >
   <form>
   <caption> <h1>TITLE CASE</h1></caption>
     <label for="">ENTER THE WORDS:</label>
       <input type="text" id="input">
```



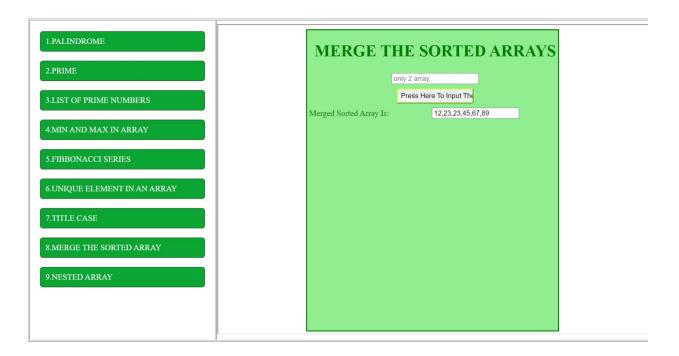
8. Implement a function that takes two sorted arrays and merges them into a single sorted array without using any built-in sorting functions.

```
<html>
  <head>
    <title>Merge Sorted Array</title>
    <link rel="stylesheet" href="front.css">
    <script>
      function merge()
       {
         var arr1=new Array();
         var arr2=new Array();
         // var n=document.getElementById("input").value;
         var temp=0;
         var num1=parseInt(window.prompt("Array1"));
         for(var i=0;i< num1;i++)
         arr1[i]=parseInt(window.prompt("Enter the Array Element for 1st Array"));
         for(var i=0;i<num1;i++)
           for(var j=0;j< num1;j++)
              if(arr1[j]>arr1[j+1])
              {
```

```
temp=arr1[j];
       arr1[j]=arr1[j+1];
       arr1[j+1]=temp;
var num2=parseInt(window.prompt("Array 2"));
for(var i=0;i<num2;i++)
  arr2[i]=parseInt(window.prompt("Enter the Array Element for 2nd Array"));
for(var i=0;i<num2;i++)
{
  for(var j=0;j<num2;j++)
  {
    if(arr2[j]>arr2[j+1])
       temp=arr2[j];
       arr2[j]=arr2[j+1];
       arr2[j+1]=temp;
var mergearray=new Array();
var temp2=0;
```

```
var i=0;j=0;
     while((i<num1) &&(j<num2))
     {
       if(arr1[i]<arr2[j])
       mergearray[temp2++]=arr1[i++];
       else
       mergearray[temp2++]=arr2[j++];
     while(i<num1)
     mergearray[temp2++]=arr1[i++];
     while(j<num2)
     mergearray[temp2++]=arr2[j++];
   alert(mergearray);
   document.getElementById("output").value=mergearray;
   }
 </script>
</head>
<body>
 <div class="bor" align="center" >
   <form>
   <caption> <h1>MERGE THE SORTED ARRAYS</h1></caption>
```

```
 <input type="text" id="input" placeholder="only 2
array">
        <input class="button" type="button"
onclick="merge()" value="Press Here To Input The Array Values">
       <label for="">Merged Sorted Array Is:</label>
         <\!\!td\!\!\:>\!\!\:<\!\!input\;type="text"\;id="output"\!\!\:>\!\!<\!\!/td\!\!\:>
       </form>
  </div>
 </body>
</html>
```



9. Implement a function that flattens a nested array in JavaScript, converting it into a single level array.

```
<html>
<head>
<title>Nested Array</title>
link rel="stylesheet" href="front.css">

</head>
<body>
<div class="bor" align="center" >

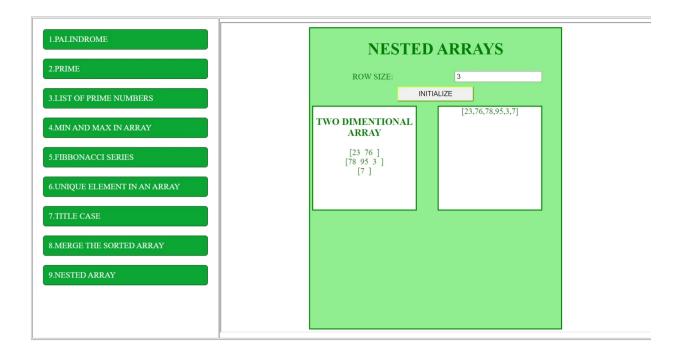
<form>

<caption><h1>NESTED ARRAYS</h1></caption>
```

```
<label>ROW SIZE:</label>
 <input type="text" id="input">
<input class="button" type="button" onclick="nest()" value="INITIALIZE">
 >
   <div align="center" id="result1">
    <H3>TWO DIMENTIONAL ARRAY</H3>
   </div>
 >
   <div align="center" id="result2">
    <H3>TWO DIMENTIONAL ARRAY</H3>
   </div>
```

```
</form>
</div>
<script>
  function nest()
  {
    var row_size=document.getElementById("input").value;
    var n;
    var flag=0;
    var arr1=new Array();
    var arr2=new Array();
    for(var i=0;i<row_size;i++)
    {
      arr1[i]=[];
      n=window.prompt("NUMBER OF COLUMN VALUES IN ROW:"+(i));
      for(var j=0;j<n;j++)
        arr1[i].push(window.prompt("ENTER THE VALUEES :"+(j+1)));
    alert("hi");
    for(var i=0;i<row_size;i++)
```

```
document.getElementById("result1").innerHTML=
                document.getElementById("result1").innerHTML+"[";
           for(var j=0;j<arr1[i].length;j++){</pre>
             document.getElementById("result1").innerHTML=
                document.getElementById("result1").innerHTML+arr1[i][j]+"  ";
           }
           document.getElementById("result1").innerHTML=\\
                document.getElementById("result1").innerHTML+"]" +"<br>";
         for(var i=0;i<row_size;i++)
         {
           for(var j=0;j<arr1[i].length;j++)</pre>
           arr2[flag++]=arr1[i][j];
         document.getElementById("result2").innerHTML="["+arr2+"]";
      }
      </script>
    </body>
</html>
```



# Css:

```
.left{
    /* border: 2px solid #000000; */
    margin-top: 20px;
    width: 100%;
    height:600px;
}
.left a{
    border: 1px solid rgb(10, 22, 10);
    padding: 10px 10px 10px 10px;
    display: flex;
    text-decoration: none;
```

```
width: 300px;
  background-color: rgb(13, 165, 51);
  color: white;
  border-radius: 5px;
}
.bor{
  border: 2px solid green;
  align-items: center;
  height: 100%;
  width: 60%;
  margin-left: 20%;
  background-color: lightgreen;
}
. table \{
  border-collapse: collapse;
  color: green;
}
.button{
  border-color: greenyellow;
  width: 150px;
  height: 30px;
  border-radius: 3px;
```

```
#result1{
  border: 2px solid green;
  background-color: white;
  color: green;
  width: 200px;
  height: 200px;
}
#result2{
  border: 2px solid green;
  background-color: white;
  color: green;
  width: 200px;
  height: 200px;
```