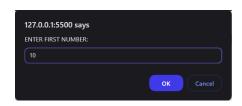
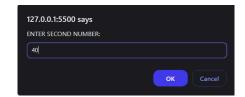
1. Write a program to execute the conditional operator(ternary) in JavaScript.

## ANS:

# Output-





SECOND NUMBER IS GREATER

2. Write a JavaScript program to print the factorial of a given number.

ANS:

CODE-

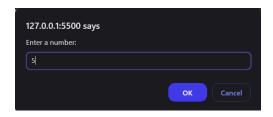
<html>

<body></body>

```
<script>
function factorial(num) {
  if (num === 0 || num === 1) {
    return 1;
  }
  return num * factorial(num - 1);
}

const number = Number(prompt("Enter a number: "));
document.write(`Factorial of ${number} is ${factorial(number)}`);
</script>
</html>
```

# **OUTPUT-**



Factorial of 5 is 120

3. Write a JavaScript program to print the Fibonacci series till 10 number.

## ANS:

```
CODE-
  <html>
    <body></body>
    <script>
    function fibonacci(n) {
    let a = 0,
    b = 1,
```

```
next;
document.writeln("Fibonacci Series:");
for (let i = 1; i <= n; i++) {
    document.writeln(a);
    next = a + b;
    a = b;
    b = next;
}

fibonacci(Number(prompt("ENTER A NUMBER TILL U WANT FIBONACCI SERIES")));
</script>
</html>
```

# **OUTPUT-**



Fibonacci Series: 0 1 1 2 3 5 8 13 21 34

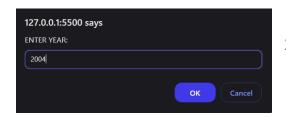
4. Write a code to find out whether the year is leap year or not.

## ANS:

```
CODE-
<html>
  <body></body>
  <script>
  year =Number(prompt("ENTER YEAR: "))
  if (year % 4 == 0) {
```

```
document.writeln(`${year} is a leap year`)
} else {
  document.writeln(`${year} is not a leap year`)
}
</script>
</html>
```

## CODE-



2004 is a leap year

- 5. Write the program for following operations on array? i)remove the first element from the array ii)add the new element at the end of the array? iii)remove the element from the bottom of the array? iv)create new array using elements of another array?
- ANS:

```
document.writeln("<br/>br> After removing first element:", arr); // Output: [20, 30,
       40, 50]
         // ii) Add a new element at the end
         arr.push(60);
         document.writeln("<br> After adding an element at the end:", arr); // Output:
       [20, 30, 40, 50, 60]
         // iii) Remove the element from the bottom of the array
         arr.pop();
         document.writeln("<br/>br> After removing the last element:", arr); // Output: [20,
       30, 40, 50]
         // iv) Create a new array using elements of another array
         let newArr = [...arr];
         document.writeln("<br> New array created from the original array:", newArr); //
       Output: [20, 30, 40, 50]
        </script>
       </html>
       OUTPUT-
                    BEFORE PERFORMING OPERATIONS ON ARRAY: 10,20,30,40,50
                    After removing first element: 20,30,40,50
                    After adding an element at the end:20,30,40,50,60
                    After removing the last element:20,30,40,50
                    New array created from the original array:20,30,40,50
   6. Write a program to check whether the given staring is palindrome or not?
ANS:
       <html>
 <body></body>
  <script>
```

```
var str = prompt("Enter a String: ");
    str = str.toLowerCase();
    alert("Your Entered String is : " + str);
    var str2 = "";
    var n = str.length;
    for(let i = n-1; i >= 0; i--) {
      str2 += str[i];
    }
    alert("Reverse of given string is: " + str2);
    if(str === str2) {
      alert(str + " is a Palindrome String");
    }else {
      alert(str + " is not a Palindrome String");
    }
  </script>
</html>
```

7. Write a program to count the number of vowels into the string?

```
<body>
  <script>
    var str = prompt("Enter a String: ");
    alert("Your Entered String is: " + str);
    var count = 0;
    for(let i = 0; i < str.length; i++) {
      if(str[i] == 'a' || str[i] == 'e' || str[i] == 'i' || str[i] == 'o' || str[i] == 'u' || str[i] == 'A' ||
str[i] == 'E' || str[i] == 'I' || str[i] == 'O' || str[i] == 'U') {
        count++;
      }
    }
    alert("Number of Vowels in " + str + " is: " + count);
  </script>
</body>
</html>
8. Write a program to create the registration form for creating gmail account.
Ans:
a] Code:
<!DOCTYPE html>
<html lang="en">
 <head>
  <meta charset="UTF-8" />
  <meta name="viewport" content="width=device-width, initial-scale=1.0" />
  <title>Document</title>
  <style>
    input {
      width: 60%;
```

```
}
   fieldset {
     width: 30%;
   }
 </style>
</head>
<body>
  <form action="">
   <center>
     <fieldset>
     <center>
       <img src="gmail.png" alt="gmail" width="4%" height="4%" />
       <h2>Sign In</h2>
       <center><i>To continue to Gmail</i></center>
     </center><br><br>
     <center>
       <label for="email"><h3><i>Enter Your Email: </i></h3></label>
       <input type="text" name="email" id="email" placeholder="Enter Your Email"
required>
       <label for="pass"><h3><i>Enter Your Password: </i></h3></label>
       <input type="password" name="pass" id="pass" placeholder="Enter Your
Password" required>
     </center>
     <center>
       <h3><i>Forgot Password ?</i></h3>
       <button><h4><i>Sign In</i></h4></button>
     </center>
   </fieldset>
   </center>
```

```
</form>
</body>
</html>
9. Write a JavaScript program for evaluating checkbox selection.
Ans:
a] Code:
<!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>
 <h1>Select Your Favourite Colors</h1>
 <input type="checkbox" name="check" value="Red"> Red <br>
 <input type="checkbox" name="check" value="Blue"> Blue <br>
 <input type="checkbox" name="check" value="Yellow"> Yellow <br>
 <input type="checkbox" name="check" value="Orange"> Orange <br>
 <input type="checkbox" name="check" value="Green"> Green <br>
 <input type="checkbox" name="check" value="White"> White <br>
 <input type="checkbox" name="check" value="Black"> Black <br><br>
 <input type="button" value="click me" onclick="myFunction()"> <br>
 You have Selected:
 <script>
```

function myFunction() {

```
var selected = "";
     for(let i = 0; i < x.length; i++) {
       if(x[i].type == "checkbox" && x[i].checked == true) {
         selected += x[i].value + "<br>";
       }
     }
     document.getElementById("demo").innerHTML = selected;
   }
 </script>
</body>
</html>
10. Write a JavaScript program for Changing Attribute Values Dynamically.
Ans:
a] Code:
<!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>
 <form action="">
   Enter Institute Name: <input type="text" name="institute" id="institute"
onchange="highlight(this)"><br><br>
   Enter Your Field: <input type="text" name="field" id="field"
onchange="highlight(this)"><br><br>
```

var x = document.getElementsByName("check");

```
<input type="submit" value="submit">
 </form>
 <script>
   function highlight(x) {
     x.style.color = "yellow";
     x.style.backgroundColor = "red";
   }
 </script>
</body>
</html>
11. Write a program for changing the option list dynamically.
Ans:
a] Code:
<!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>
 <form action="" name="myForm">
   <select name="optionList" size="3">
     <option value="1">Kiwi</option>
     <option value="1">Apple</option>
     <option value="1">Mango</option>
     <option value="1">Guava</option>
```

```
</select>
   <br>
   <input type="radio" name="grp1" value="1" checked="true"
onclick="modifyList(this.value)">Fruits
   <input type="radio" name="grp1" value="2"
onclick="modifyList(this.value)">Vegetables
 </form>
 <script>
   function modifyList(x) {
     with(document.forms.myForm) {
       if(x == 1) {
         optionList[0].text = "Kiwi";
         optionList[0].value = 1;
         optionList[1].text = "Apple";
         optionList[1].value = 2;
         optionList[2].text = "Mango";
         optionList[2].value = 3;
         optionList[3].text = "Guava";
         optionList[3].value = 4;
       }
       if(x == 2) {
         optionList[0].text = "Onion";
         optionList[0].value = 1;
         optionList[1].text = "Tomato";
         optionList[1].value = 2;
         optionList[2].text = "Potato";
         optionList[2].value = 3;
         optionList[3].text = "Cabbage";
         optionList[3].value = 4;
```

```
}
    }
   }
 </script>
</body>
</html>
12. Develop a program for as we enter the firstname and lastname, email is
   automatically generated.
Ans:
a] Code:
<!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>
 Enter First Name: <input type="text" name="fname" id="fname"><br><br>
 <input type="button" value="Generate Email" onclick="generate()"> <br>
 Email: <input type="email" id="demo">
 <script>
   function generate() {
    var x = document.getElementById("fname").value.toLowerCase();
    var y = document.getElementById("lname").value.toLowerCase();
    var z = "@gmail.com";
```

```
var email = x+y+z;
     document.getElementById("demo").value = email;
   }
 </script>
</body>
</html>
13. Write a program to demonstrate the use of onchange event.
Ans:
a] Code:
<!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>
 <form action="">
   Enter Institute Name: <input type="text" name="institute" id="institute"
onchange="highlight(this)"><br><br>
   Enter Your Field: <input type="text" name="field" id="field"
onchange="highlight(this)"><br><br>
   <input type="submit" value="submit">
 </form>
 <script>
   function highlight(x) {
     x.style.color = "yellow";
     x.style.backgroundColor = "red";
```

```
}
 </script>
</body>
</html>
14. Write a JavaScript program to demonstrate the addEventListener ().
Ans:
a] Code:
<!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>
 Press a key inside the textbox to change the color of the textbox
 <input type="text" id="demo">
 <script>
   document.getElementById("demo").addEventListener("keypress",myfunction);
   function myfunction() {
     document.getElementById("demo").style.backgroundColor = "yellow";
   }
 </script>
</body>
</html>
```

15. Write a program to disable and enabled text field.

```
Ans:
a] Code:
<!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>
 <input type="text" name="demo" id="demo"><br><br>
 <input type="button" value="Disabled Text" onclick="disable()">
 <input type="button" value="Enabled Text" onclick="enable()">
 <script>
   function disable() {
     document.getElementById("demo").disabled = true;
   }
   function enable() {
     document.getElementById("demo").disabled = false;
   }
 </script>
</body>
</html>
16. Write a JavaScript program to change the value of an element that the user
   cannot change (a read-only element)
Ans:
a] Code:
```

```
<!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>
 <input type="text" name="demo" id="demo"><br><br>
 <input type="button" value="ReadOnly Text" onclick="read()">
 <input type="button" value="Normal Text" onclick="normal()">
 <script>
   function read() {
     document.getElementById("demo").readOnly = true;
   }
   function normal() {
     document.getElementById("demo").readOnly = false;
   }
 </script>
</body>
</html>
17. Write a program to read the cookie.
Ans:
a] Code:
<!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>
 <form action="" name="myForm">
   Enter Your Name: <input type="text" name="demo" id="demo"> <br><br>
   <input type="reset" type="button" value="setCookie" onclick="writeCookie()">
   <input type="reset" type="button" value="getCookie" onclick="readCookie()">
 </form>
 <script>
   function writeCookie() {
     with(document.myForm) {
       document.cookie = "Name: " + demo.value + ";";
       alert("Cookie Written Successfully");
     }
   }
   function readCookie() {
     var x;
     if(document.cookie == "") {
       x = "";
     } else {
       x = document.cookie;
       document.write(x);
     }
   }
 </script>
</body>
```

```
</html>
18. Write a program to delete the cookie.
Ans:
a] Code:
<!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>
 <form action="" name="myForm">
   Enter Your Name: <input type="text" name="demo" id="demo"> <br><br>
   <input type="reset" type="button" value="setCookie" onclick="writeCookie()">
   <input type="reset" type="button" value="getCookie" onclick="readCookie()">
 </form>
 <script>
   function writeCookie() {
     var d = new Date();
     d.setTime(d.getTime()+(1000*10));
     with(document.myForm) {
       document.cookie = "Name : " + demo.value + ";expires= " + d.toGMTString();
       alert("Cookie Written Successfully");
     }
```

}

function readCookie() {

```
var x;
     if(document.cookie == "") {
       χ = "";
     } else {
       x = document.cookie;
       document.write(x);
     }
   }
  </script>
</body>
</html>
19. Write a program to demonstrate the use of scrollBy () and scrollTo().
Ans:
a] Code:
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
  <style>
   body {
     width: 5000px;
     height: 5000px;
   }
  </style>
```

```
</head>
<body>
 Click on the Horizontal scroll bar to scroll the text horizontally
 Click on the Vertical scroll bar to scroll the text vertically
 <button onclick="scrollHor()">Scroll Horizontal/button>
 <button onclick="scrollVer()">Scroll Vertical</button>
 <script>
   function scrollHor() {
     window.scrollBy(100,0)
   }
   function scrollVer() {
     window.scrollTo(0,100);
   }
 </script>
</body>
</html>
20. Writing a number after a delay using setInterval () method. In this example,
   numbers are displayed in a textarea after a 1 second.
Ans:
a] Code:
<!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>
 <button onclick="magic()">Click me</button>
 <br><br><
 <textarea name="output" id="output" rows="2" cols="20"></textarea>
 <script>
   var number = 0;
   var timerId = null;
   function magic() {
     if(timerId == null) {
       timerId = setInterval("display()",1000);
     }
   }
   function display() {
     if(number > 15) {
       clearInterval(timerId);
       return;
     }
     document.getElementById("output").innerHTML += number;
     number++;
   }
 </script>
</body>
</html>
```

21. Write a code that accepts username and Aadhar card as input texts. When the user enters Aadhar-card number, the javascript validates card number and displays whether card number is valid or not.

Ans:

a] Code:

```
<!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>
 Enter Username: <input type="text" name="user" id="user"> <br>
 Enter Aadhar Number: <input type="text" name="aadhar" id="aadhar"> <br><br>
 <input type="button" value="Validate Aadhar" onclick="valid()">
 <script>
   function valid() {
     var userinput = document.getElementById("user").value;
     var aadharno = document.getElementById("aadhar").value;
     const format = /^\d{4}\s\d{4}\s\d{4};
     if(userinput === "") {
       alert("Plz enter a Username");
     } else if(format.test(aadharno)) {
       alert("Valid Aadhar number for user: " + userinput);
     } else {
       alert("Invalid Aadhar number. Plz enter in xxxx xxxx xxxx format....");
     }
   }
 </script>
</body>
</html>
```

```
22. Write a code to validate email-id.
Ans:
a] Code:
<!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>
 Enter Your Email: <input type="text" name="email" id="email"><br><br>
 <input type="button" value="Validate Email" onclick="valid()">
 <script>
   function valid() {
     var emailinput = document.getElementById("email").value;
     const format = /^[a-zA-Z0-9._%+-]+@[a-zA-Z0-9.-]+\.\S{2,}$/;
     if(emailinput === "") {
       alert("Enter Email");
     } else if(format.test(emailinput)) {
       alert("Valid Email Address");
     } else {
       alert("Invalid Email Address");
     }
   }
 </script>
</body>
```

</html>

Ans: a] Code: <!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> Move the mouse over me to change the color of my text <script> function changeColor() { document.getElementById("color").style.color = "red"; } function normal() { document.getElementById("color").style.color = "black"; } </script> </body> </html> 24. Create a rollover effect that can change the image. (Set of 4 images) Ans: a] Code:

23. Create a rollover effect that can change the color of its text.

```
<!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>
 <img src="banner1.jpg" alt="banner1" width="400px" height="300px"
onmouseover="change()" onmouseout="normal()" id="img1">
  <script>
   vari = 0;
   var s;
   var arr = ["banner1.jpg","banner2.jpg","banner3.jpg","banner4.jpg"];
   function normal() {
     clearInterval(s);
     document.getElementById("img1").src = "banner1.jpg";
   }
   function change() {
     s = setInterval(display, 1000);
   }
   function display() {
     if(i === arr.length) {
       i = 0;
     }else {
       document.getElementById("img1").src = arr[i];
       j++;
     }
```

```
}
  </script>
</body>
</html>
25. Demonstrate the use of chain select menu.
Ans:
<!DOCTYPE html>
<html lang="en">
 <head>
  <meta charset="UTF-8" />
  <title>Menu in JavaScript</title>
 <!-- <link rel="stylesheet" href="style.css" /> -->
  <style>
  .center {
   text-align: center;
  }
  select {
   text-align: center;
   font-size: 20px;
   padding: 10px;
   width: 500px;
  }
  td {
   padding: 15px;
   vertical-align: top;
```

```
font-size: 20px;
 }
</style>
</head>
<body>
<h1>6.4 Menus</h1>
<div class="center">
 <h2>Select Country:</h2>
 <select name="country" id="country" onchange="showStates(this.value)">
  <option value="">-- SELECT --</option>
  <option value="India">India</option>
  <option value="USA">USA</option>
 </select>
 <h2>Select State:</h2>
 <select name="state" id="state" onchange="showCity(this.value)">
  <option value="">-- SELECT --</option>
 </select>
 <h2>Select City:</h2>
 <select name="city" id="city" onchange="showArea(this.value)">
  <option value="">-- SELECT --</option>
 </select>
 <h2>Select Area:</h2>
 <select name="area" id="area">
  <option value="">-- SELECT --</option>
 </select>
</div>
<script>
```

```
function showStates(country) {
 let elem = document.getElementById("state");
 if (country == "India") {
 var states = `<option value=">-- SELECT --</option>
    <option value='Maharashtra'>Maharashtra
    <option value='Gujarat'>Gujarat
 elem.innerHTML = states;
 } else if (country == "USA") {
 var states = `<option value=">-- SELECT --</option>
    <option value='California'>California</option>
    <option value='Colorado'>Colorado</option>
 elem.innerHTML = states;
} else {
 elem.innerHTML = "<option value=">-- SELECT --</option>";
}
}
function showCity(state) {
 let elem = document.getElementById("city");
 if (state == "Maharashtra") {
 var city = `<option value=">-- SELECT --</option>
    <option value='Mumbai'>Mumbai
    <option value='Pune'>Pune</option>
 elem.innerHTML = city;
 } else if (state == "Gujarat") {
```

```
var city = `<option value=">-- SELECT --</option>
    <option value='Ahmedabad'>Ahmedabad
    <option value='Surat'>Surat</option>
 elem.innerHTML = city;
} else {
 elem.innerHTML = "<option value=">-- SELECT --</option>";
}
}
function showArea(city) {
 let elem=document.getElementById("area");
 if (city == "Mumbai") {
 var area = `<option value=">-- SELECT --</option>
    <option value='CST'>CST</option>
    <option value='Vadala Road'>Vadala Road
 elem.innerHTML = area;
 } else if (city == "Surat") {
 var area = `<option value=">-- SELECT --</option>
    <option value='Dabholi'>Dabholi naka
    <option value='tapi riverz'>tapi river ashram
    `;
 elem.innerHTML = area;
 } else {
 elem.innerHTML =
  "<option value=">-- SELECT --</option>";
}
```

```
}
 </script>
 </body>
</html>
26. Demonstrate the use of context menu.
Ans:
a] Code:
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
 <title>Custom Context Menu</title>
 <style>
 #targetBox {
   background: yellow;
   padding: 10px;
   border: 1px solid black;
 }
 #contextMenu {
   display: none;
   position: absolute;
   background: white;
   border: 1px solid #ccc;
 }
 #contextMenu li {
   padding: 5px;
```

```
cursor: pointer;
 }
 #contextMenu li:hover {
   background: #eee;
 }
</style>
</head>
<body>
<div id="targetBox">Right-click here!</div>
ul id="contextMenu">
 onclick="location.reload()">Refresh
onclick="window.open('//twitter.com/intent/tweet?text='+location.href)">Twitter
>
 <li
onclick="window.open('//facebook.com/sharer/sharer.php?u='+location.href)">Fac
ebook
 Email
<script>
 const menu = document.getElementById("contextMenu"), box =
document.getElementById("targetBox");
 box.addEventListener("contextmenu", e => {
   e.preventDefault(); menu.style.display = "block"; menu.style.top = e.clientY +
"px"; menu.style.left = e.clientX + "px";
 });
 document.addEventListener("click", () => menu.style.display = "none");
</script>
</body>
</html>
```

```
27. Write a program for pull down menu.
Ans:
a] Code:
<!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>
 <form action="" onsubmit="return validate()">
   Select your City
   <select name="city" id="city">
     <option value="Select">Select</option>
     <option value="Delhi">Delhi</option>
     <option value="Jaipur">Jaipur</option>
     <option value="Agra">Agra</option>
     <option value="Bangalore">Bangalore</option>
     <option value="Pune">Pune</option>
   </select>
   <input type="submit" name="Submit" value="Submit">
 </form>
 <script>
   function validate() {
     var citiname = document.getElementById("city");
```

if(citiname.selectedIndex == "") {

```
alert("Please select an option");
       return false;
     }
     var selectedText = citiname.options[citiname.selectedIndex].value;
     alert("You have selected: " + selectedText);
     return true;
   }
 </script>
</body>
</html>
28. Write a program for email concealing
Ans:
<!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>
  function CreateEmailAddress() {
   var x = "abcxyz*c_o_m";
   var y = "mai";
   var z = "lto";
   var s = "?subject=Customer Inquiry";
   x = x.replace("\&", "@");
```

```
x = x.replace("*", ".");
       x = x.replace("_", "");
       x = x.replace("_", "");
       varb = y + z + ":" + x + s;
       window.location = b;
      }
     </script>
     <input type="button" value="send" onclick="CreateEmailAddress()">
    </body>
   </html>
   29. Create rotating banner Ads with URL links.
   Ans:
   a] Code:
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="UTF-8">
 <title>Banner Ads</title>
 <style>
   .center {
     text-align: center;
     margin-top: 20px;
   }
 </style>
 <script>
   const banners = ['banner1.jpg', 'banner2.jpg', 'banner3.jpg'];
   const bannerLinks = ['https://google.com', 'https://vpt.edu.in',
'https://msbte.org.in'];
   let bannerIndex = 0;
   function showBanner() {
     document.getElementById("bannerImage").src = banners[bannerIndex];
     bannerIndex = (bannerIndex + 1) % banners.length;
   }
```

```
function startBannerRotation() {
     bannerInterval = setInterval(showBanner, 1000);
   }
   function stopBannerRotation() {
     clearInterval(bannerInterval);
   }
   function navigate() {
     window.location.href = bannerLinks[bannerIndex];
   }
 </script>
</head>
<body onload="startBannerRotation()">
 <h1>Banner Ads Demo</h1>
 <div class="center">
   <a href="javascript:navigate()">
     <img src="banner1.jpg" width="400" height="75" id="bannerImage" alt="Banner
Image" />
   </a>
   <br><br><
   <button onclick="startBannerRotation()">START</button>
   <button onclick="stopBannerRotation()">STOP</button>
 </div>
</body>
</html>
```

#### **Banner Ads Demo**



30. Create a slideshow with group of four images, also simulate the next and previous transition between slides in javascript.

Ans:
a] Code:
<!DOCTYPE html>

```
<html lang="en">
<head>
 <meta charset="UTF-8">
 <title>Learning Banners</title>
 <!-- <li>href="style.css"> -->
 <script>
   MyBanners = ['images/banner1.jpg', 'images/banner2.jpg', 'images/banner3.jpg',
'images/banner4.jpg', 'images/banner5.jpg']
   bannerCounter = 0
   function next() {
     document.getElementById("changeBanner").src =
MyBanners[bannerCounter++];
     if (bannerCounter == MyBanners.length) {
       bannerCounter = 0
    }
   }
   function prev() {
     document.getElementById("changeBanner").src = MyBanners[bannerCounter-
-];
     if (bannerCounter == -1) {
       bannerCounter = MyBanners.length - 1
     }
   }
 </script>
</head>
```