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Section: B1

Course: BCA

**Q23-Write a javascript program to change the background colour dynamically.**

**Code:**

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width,
initialscale=1.0">
  <title>Dynamic Background Color</title>
  <style>
body {
    font-family: Arial, sans-serif;
    display: flex;
justify-content: center;
align-items: center;
height: 100vh;
margin: 0;
}
#colorButton {
padding: 10px 20px;
font-size: 16px;
cursor: pointer;
border: none;
background-color: #4CAF50;
color: white;
border-radius: 5px;
}
#colorButton:hover {
background-color: #45a049;
}
```

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```
</style>
</head>
<body>
  <button id="colorButton">Change Background Color</button>

  <script>
    // Array of possible colors
    const colors = ["#FF5733", "#33FF57", "#3357FF", "#FF33A1",
"#FFFF33", "#33FFFF", "#FF5733"];

    // Function to change the background
color    function
changeBackgroundColor() {          //
Randomly select a color from the array
    const randomColor = colors[Math.floor(Math.random() *
colors.length)];
    // Set the background color
    document.body.style.backgroundColor = randomColor;
  }
  // Attach the function to the button's click event

document.getElementById("colorButton").addEventListener("click",
changeBackgroundColor);
  </script>
</body>
</html>
```

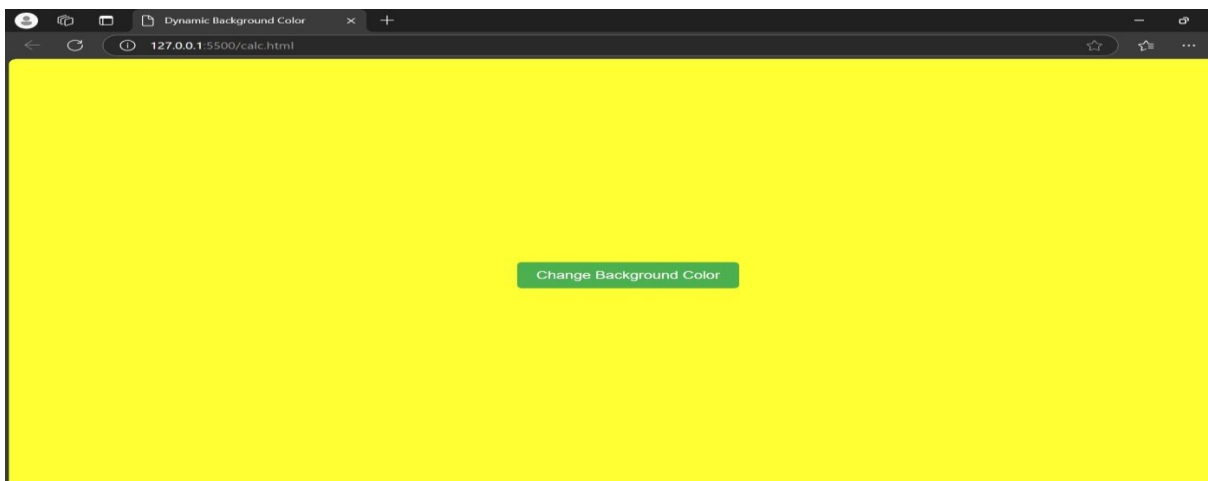
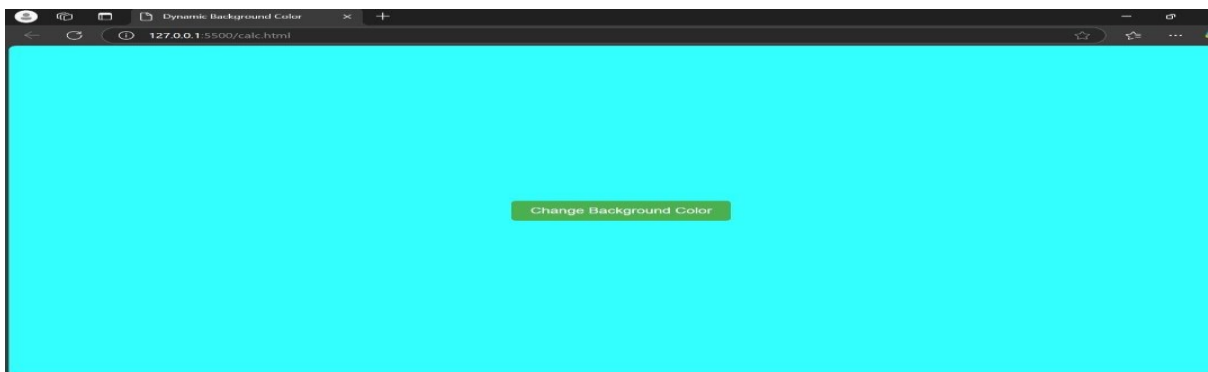
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## Output-23:



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**Q24-Write a php script to write a factorial program using recursion.**

**Code:**

```
<html>
<head>
<title> Factorial Program</title>
</head>
<body>
<form method="POST">
<label>Enter a number</label>
<input type="text" name="number" />
<input type="submit" name="submit" value="Submit" />
</for
m>
<?php
function Factorial_Function($input)
{
if($input <=1) {
return 1;
}
return $input * Factorial_Function($input-1);
}
if(!empty($_POST['
number'])) { $input
=
$_POST['number'];
echo '<br>'. 'The factorial of the number '.$input.' is ' .
Factorial_Function($input);
}
?>
```

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</body

>

</html

>

## Output-24:

Enter a number

Submit

The factorial of the number 9 is 362880

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## **Q25 -Write the code to make a arithmetic calculator using HTML , CSS , Javascript.**

### **Code:**

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-
scale=1.0">
  <title>Simple Calculator</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      text-align: center;
      margin-top: 50px;
    }
    .calculator {
      display: inline-block;
      border: 2px solid #000;
      padding: 20px;
      border-radius: 10px;
    }
    .output {
      width: 200px;
      height: 40px;
      text-align: right;
      margin-bottom: 10px;
      font-size: 20px;
```

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```
padding: 5px;
border: 2px solid #ccc;
border-radius: 5px;
}
.buttons {
display: grid;
grid-template-columns: repeat(4, 50px);
gap: 10px;
}
.buttons button {
width: 50px;
height: 50px;
font-size: 20px;
border: none;
background-color: #f1f1f1;
border-radius: 5px;
cursor: pointer;
}
.buttons button:hover {
background-color: #ddd;
}
.buttons button:active {
background-color: #bbb;
}
</style>
</head>
<body>
<div class="calculator">
  <input type="text" id="output" class="output" disabled>
  <div class="buttons">
    <button onclick="clearScreen()">C</button>
    <button onclick="appendToScreen('7')">7</button>
```

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```
<button onclick="appendToScreen('8')">8</button>
<button onclick="appendToScreen('9')">9</button>
<button onclick="appendToScreen('/')">/</button>
<button onclick="appendToScreen('4')">4</button>
<button onclick="appendToScreen('5')">5</button>
<button onclick="appendToScreen('6')">6</button>
<button onclick="appendToScreen('*')">*</button>
<button onclick="appendToScreen('1')">1</button>
<button onclick="appendToScreen('2')">2</button>
<button onclick="appendToScreen('3')">3</button>
<button onclick="appendToScreen('-')">-</button>
<button onclick="appendToScreen('0')">0</button>
<button onclick="appendToScreen('.')">.</button>
<button onclick="calculate()">=</button>
<button onclick="appendToScreen('+')">+</button>
```

```
</div>
```

```
</div>
```

```
<script>
```

```
// Function to clear the screen
```

```
function clearScreen() {
```

```
    document.getElementById('output').value = "";
```

```
}
```

```
// Function to append a character to the screen
```

```
function appendToScreen(value) {
```

```
    document.getElementById('output').value += value;
```

```
}
```

```
// Function to calculate the result
```

```
function calculate() {
```

```
    try {
```



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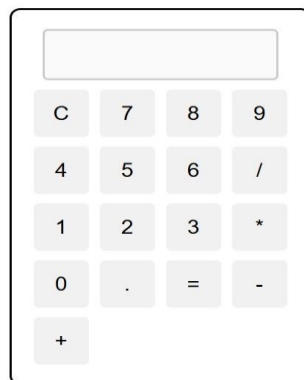
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```
        let result = eval(document.getElementById('output').value);
        document.getElementById('output').value = result;
    } catch (error) {
        alert('Invalid calculation');
        clearScreen();
    }
}
</script>
</body>
</html>
```

## Output 25:



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## **Q26-Write a javascript program for password verification.**

### **Code:**

```
<!DOCTYPE html>
<html lang="en">
<head>
  <script>
    function matchpass(){      var
first_password=document.myform.password
1.value;      var
second_password=document.myform.passw
ord2.value;
    if(first_password==second_password){
      alert("password matched");
      return true;

    }
    else
    {
      alert("password does not match");
    }
  }
</script>
</head>
<body>
  <h2>Password verification</h2>
  <form name="myform" method="post" onsubmit="return
matchpass()">
```

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Password :<input type="password"  
name="password1"><br><br>

Re-enter Password: <input type="password"  
name="password2"><br><br>

<input type="submit" value="submit">

</form>

</body>

</html>

## Output- 26:

### Password verification

Password : ...

Re-enter Password: 12345

submit

127.0.0.1:3000 says

password does not match

OK

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## **Q27-Write a javascript code to perform event handling.**

### **Code:**

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-
scale=1.0">
  <title>Multiple Event Handling Example</title>
  <style>
#hoverBox {
width: 200px;
height: 100px;
background-color:
lightblue;
border: 1px solid
#000;
margin-top: 20px;
text-align: center;
    line-height: 100px;
  }
  #output {
    margin-top: 20px;
  }
</style>
</head>
<body>

  <h2>Event Handling in JavaScript</h2>
```

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```
<button id="clickButton">Click Me</button>
```

```
<div id="hoverBox">Hover over me!</div>
```

```
<form id="myForm">
```

```
  <label for="username">Username:</label>
```

```
  <input type="text" id="username" name="username" required>
```

```
  <button
```

```
type="submit">Submit</button
```

```
> </form>
```

```
<p id="output"></p>
```

```
<script>
```

```
  // Event 1: Button click event
```

```
  const clickButton = document.getElementById("clickButton");
```

```
  function handleButtonClick() {
```

```
    alert("Button clicked! Event handled.");
```

```
  }
```

```
  clickButton.addEventListener("click", handleButtonClick);
```

```
  // Event 2: Mouse hover event
```

```
  const hoverBox = document.getElementById("hoverBox");
```

```
  function handleMouseOver() {
```

```
    hoverBox.style.backgroundColor = "lightgreen"; // Change  
color when mouse hovers      hoverBox.textContent = "Thanks for  
hovering!";
```

```
  }
```

```
  function handleMouseOut() {
```

```
    hoverBox.style.backgroundColor = "lightblue"; // Reset color  
when mouse leaves      hoverBox.textContent = "Hover over me!";
```

```
  }
```

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```
    hoverBox.addEventListener("mouseover", handleMouseOver);  
hoverBox.addEventListener("mouseout", handleMouseOut);
```

```
    // Event 3: Form submit event  
    const form = document.getElementById("myForm");  
  
    function handleFormSubmit(event) {  
        event.preventDefault(); // Prevent form submission to allow  
validation
```

```
        const username =  
document.getElementById("username").value;
```

```
        if (username.trim() === "") {  
            alert("Username is required!");  
        } else {  
            document.getElementById("output").textContent = "Form  
submitted successfully with username: " + username;  
        }  
    }  
}
```

```
    form.addEventListener("submit",  
handleFormSubmit);    </script>
```

```
</body>
```

```
</html>
```

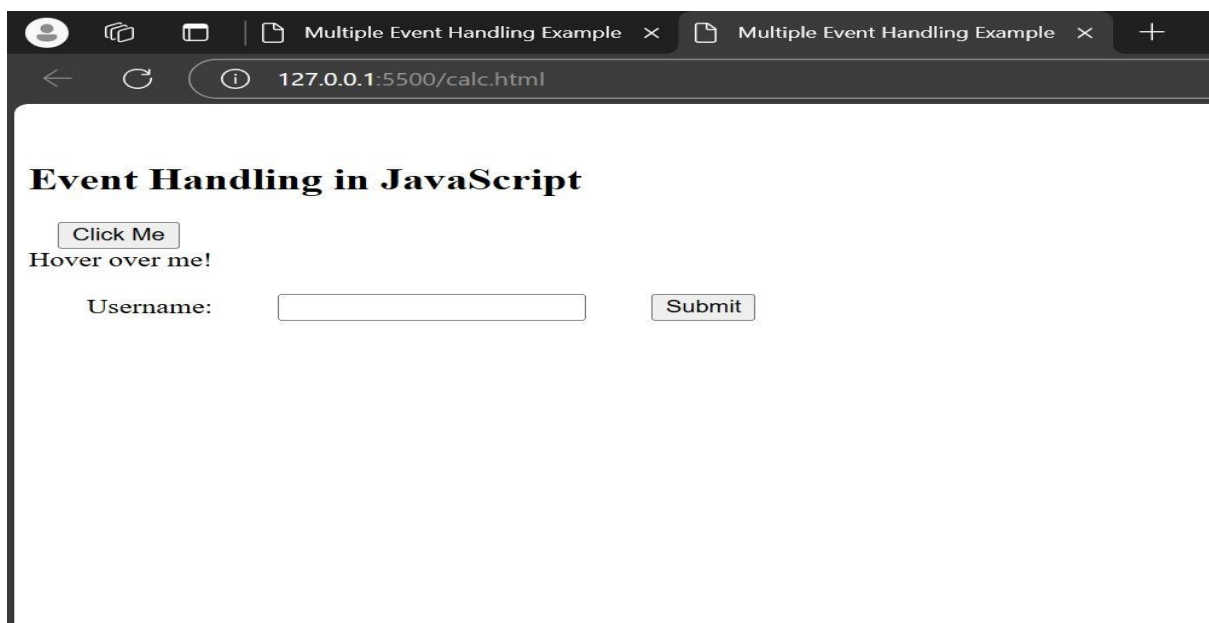
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## Output-27:



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**Q28- Write a php script and implement the following array:**

**1=indexed array**  
**2=associative array**  
**3=multidimension**  
**array**

**Code:**

```
<?php
$student=array("david","john","
maria","sunny"); echo "<b> 1=
the indexed array is : </b> <br>
<br>";
var_dump($s
tudent);
echo
"<br><br>";
```

```
$employee=array("ename"=>"Rani","eid"=>1001,"salary"=>50000);
echo "<b> 2= the associative array is : </b><br><br>";
echo
$employee["e
id"]; echo
"<br>"; echo
$employee["e
name"]; echo
"<br><br>";
```



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\$students =

array(

array("John", 25,

"A"),

array("Jane", 22,

"B"),

array("Tom", 24, "C")

);

echo "<b> 3= the multidimension

array is : </b><br><br>"; echo

\$students[0][0]; echo "<br>"; echo

\$students[2][1];

?>

## Output-29:

**1= the indexed array is :**

```
array(4) { [0]=> string(5) "david" [1]=> string(4) "john" [2]=> string(5) "maria" [3]=> string(5) "sunny" }
```

**2= the associative array is :**

1001

Rani

**3= the multidimension array is :**

John

24

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### **Q30-write a javascript program to validate a form.**

#### **Code:**

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

    <title>Form Validation Example</title>
    <script>
        function validate() {
            var name =
document.myform.name.value;
var password =
document.myform.password.value
;      var
x=document.myform.email.value;
var atposition=x.indexOf("@");
var dotposition=x.lastIndexOf(".");

            // Check if the name field is
empty or only contains spaces      if
(name == null || name.trim() == "") {
alert("Name can't be null or empty.");
            return false; // Prevent form submission
        }

            // Check if the password length
is less than 6 characters      if
(password.length < 6) {
            alert("Password must be at
least 6 characters.");      return
false; // Prevent form submission
```

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```
    }
    if(atposition<1 || dotposition<atposition+2 ||
dotposition+2>=a.length){
        alert("please enter a valid email address \natposition
"+atposition +"\\n dotpostion :"+ dotposition);
        return false;
    }

    // If both checks pass, allow
form submission        return
true;
    }
</script>

<!-- Form to collect user name and password -->
<h2>Registration Form</h2>
<form name="myform" method="post" onsubmit="return
validate()">
    Name: <input type="text"
name="name"><br><br>        Password:
<input type="password"
name="password"><br><br>
email<input type="text"
name="email"><br>
        <input type="submit" value="Register">
    </form>

</body>
</html>
```

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### Output-30:

## Registration Form

Name:

Password:

email

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