**1.﻿CREATE A FORM WITH THE ELEMENTS OF TEXTBOXES, RADIO BUTTONS, CHECKBOXES, AND SO ON. WRITE JAVASCRIPT CODE TO VALIDATE THE FORMATE IN EMAIL AND MOBILE NUMBER IN 10 CHARACTERS, IF A TEXTBOX HAS BEEN LEFT EMPTY, POPUP AN ALERT INDICATING WHEN EMAIL, MOBILE NUMBER AND TEXTBOX HAS BEEN LEFT EMPTY.**

<html>

<head>

<title>Form validation</title>

<script>

function validateForm()

{

var email=document.forms["myForm"]["email"].value;

var mobile=document.forms["myForm"]["mobile"].value;

var name=document.forms["myForm"]["name"].value;

var emailRegex=/^[a-zA-Z0-9.\_-]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,4}$/;

var mobileRegex=/^[0-9]{10}$/;

if(name==" ")

{

alert("Name must be filled out");

return false;

}

if(!emailRegex.test(email))

{

alert("Invalid email format")

return false;

}

}

</script>

</head>

<body>

<form name="myForm" onsubmit="return validateForm()"method="Post">

Name:<input type="text" name="name"><br><br>

Email:<input type="text" name="email"><br><br>

Mobile:<input type="text" name="mobile"><br><br>

Gender:

<input type="Radio" name="gender" value="Male">Male

<input type="Radio" name="gender" value="Female">Female<br><br>

Hobbies:

<input type="Checkbox" name="Hobby1" value="Reading">Reading

<input type="Checkbox" name="Hobby2" value="Traveling">Traveling<br><br>

<input type="Submit" value="Submit">

</form>

</body>

</html>

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OUTPUT:

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**2.﻿DEVELOP AN HTML FORM, WHICH ACCEPTS ANY MATHEMATICAL EXPRESSION. WRITE JAVASCRIPT CODE TO EVALUATE THE EXPRESSION AND DISPLAY THE RESULT.**

<html>

<head>

<title>Math Expression Evalutor</title>

</head>

<body>

<form id="mathForm">

<label for="expression">Enter Mathematical Expression:</label>

<input type="text" id="expression" name="expression">

<input type="button" value="Evaluate" onclick="evaluateExpression()">

</form>

<div id="result"></div>

<script>

function evaluateExpression()

{

try

{

var expression=document.getElementById('expression').value;

var result=eval(expression);

document.getElementById('result').innerText='Result:'+result;

}

catch(error)

{

document.getElementById('result').innerText='Invalid expression';

}

}

</script>

</body>

</html>

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OUTPUT:

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**3. CREATE A PAGE WITH DYNAMIC EFFECTS WRITE THE CODE TO INCLUDE LAYERS AND BASIC ANIMATIONS.**

<html>

<head>

<title>Basic Animation</title>

<style>

#layer1{Position:absolute;top:50px;left:50px;}

#layer2{Position:absolute;top:50px;left:400px;}

#layer3{Position:absolute;top:50px;left:800px;}

</style>

<script type="text/javascript">

function moveimage(layer)

{

var top=window.prompt("Enter top value");

var left=window.prompt("Enter left value");

document.getElementById(layer).style.top= top+'px';

document.getElementById(layer).style.left= left+'px';

}

</script>

</head>

<body>

<div id="layer1"> <img﻿src="ball.jpg" onclick="moveimage('layer1')" alt="MyImage"/></div>

<div id="layer2"> <img﻿src="ball.jpg" onclick="moveimage('layer2')" alt="MyImage"/></div>

<div id="layer3"> <img﻿src="ball.jpg" onclick="moveimage('layer3')" alt="MyImage"/></div>

</body>

</html>

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OUTPUT:

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**4. WRITE THE JAVASCRIPT CODE TO FIND THE SUM OF N NATURAL NUMBERS. (USERDEFINED FUNCTION).**

<html>

<head>

<title>Sum of n numbers</title>

<script type="text/javascript">

function Sum()

{

var n=prompt("Enter a number",0);

var num=parseInt(n);

var sum=0;

for(i=1; i<=num; i++)

{

sum=sum+i;

}

document.writeln("Sum of " + num +" natural numbers: " + sum);

}

</script>

</head>

<body>

<center><h1>Finding sum of natural numbers using javascript</h1>

<input type="button" onclick="Sum()" value ="Sum"/>

</center>

</body>

</html>

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OUTPUT:

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**5. CREATE A JAVASCRIPT CODE BLOCK USING ARRAYS AND GENERATE THE CURRENT DATE IN WORDS, THIS SHOULD INCLUDE THE DAY, MONTH AND YEAR.**

<html>

<title>Current Date in Words</title>

<head>

</head>

<body>

<h2>Current Date in Words</h2>

<p id="dateInWords"></p><script>

const﻿daysOfWeek = [ "Sunday", "Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday" ];

const﻿monthsOfYear = [ "January", "February", "March", "April", "May", "June", "July", "August", "September", "October", "November", "December"];

const﻿currentDate = new Date();

const day=daysOfWeek [currentDate.getDay()]; const month = monthsOfYear [currentDate.getMonth()];

const year = currentDate.getFullYear();

const﻿currentDateInWords = ${day}, ${month} ${currentDate.getDate()}, ${year};

document.getElementById('dateInWords').textContent = "Current date in words: " + currentDateInWords;

</script>

</body>

</html>

﻿

OUTPUT:

**6. CREATE A FORM FOR STUDENT INFORMATION. WRITE A JAVASCRIPT CODE TO FIND TOTAL, AVERAGE, RESULT AND GRADE.**

<html>

<head>

<title>Student Information Form</title>

<script>

function calculateResult()

{

var math=parseFloat(document.getElementById('math').value);

var science=parseFloat(document.getElementById('science').value);

var english=parseFloat(document.getElementById('english').value);

var totalMarks=math+science+english;

var average=totalMarks/3;

var result=(math>=35 && science>=35 && english>=35)?"Pass":"Fail";

var grade;

if(average>=90)

{

grade='A+';

}

else if(average>=80)

{

grade='A';

}

else if(average>=70)

{

grade='B';

}

else if(average>=60)

{

grade='C';

}

else if(average>=50)

{

grade='D';

}

else

{

grade='F';

}

document.getElementById('totalMarks').value=totalMarks.toFixed(2);

document.getElementById('average').value=average.toFixed(2);

document.getElementById('result').value=result;

document.getElementById('grade').value=grade;

}

</script>

</head>

<body>

<h2>Student Information</h2>

<form>

Math: <input type="number" id="math"><br><br>

Science: <input type="number" id="science"><br><br>

English: <input type="number" id="english"><br><br>

<input type="button" value="Calculate" onclick="calculateResult()">

</form>

<br>

<h2>Result Details</h2>

Total Marks: <input type="text" id="totalMarks" readonly><br><br>

Average: <input type="text" id="average" readonly><br><br>

Result: <input type="text" id="result" readonly><br><br>

Grade: <input type="text" id="grade" readonly>

</body>

</html>

﻿

OUTPUT:

﻿

**7. CREATE A FORM FOR EMPLOYEE INFORMATION. WRITE JAVASCRIPT CODE TO FIND DA, HRA, PF, TAX, GROSS PAY, DEDUCTION AND NET PAY**.

<html>

<head>

<script type="text/javascript">

function show()

{

var name=document.getElementById("txtname").value;

var num=document.getElementById("txtnum").value;

var sal=parseInt(document.getElementById("txtsal").value);

var hra=(sal\*40)/100;

var da=(sal\*60)/100;

var gross=sal+hra+da;

var pf=(sal\*13)/100;

var tax=(sal\*20)/100;

var deduct=pf+tax;

var net=gross-deduct;

document.writeln("<b>Employee Name:"+name+" </b>"+"<br>"+"<br>");

document.writeln("<b>Employee Number:"+num+" </b>"+"<br>"+"<br>");

document.writeln("<b>Basic salary:"+sal+" </b>"+"<br>"+"<br>");

document.writeln("<b>HRA:"+hra+" </b>"+"<br>"+"<br>");

document.writeln("<b>DA:"+da+" </b>"+"<br>"+"<br>");

document.writeln("<b>Gross Salary:"+gross+" </b>"+"<br>"+"<br>");

document.writeln("<b>PF:"+pf+" </b>"+"<br>"+"<br>");

document.writeln("<b>tax:"+tax+" </b>"+"<br>"+"<br>");

document.writeln("<b>Deduction:"+deduct+" </b>"+"<br>"+"<br>");

document.writeln("<b>Net Salary:"+net+" </b>"+"<br>"+"<br>");

}

</script>

</head>

<body bgcolor="Pink" text="blue">

<center>

<h1> Employee Detail Form</h1>

<form name="emp">

<table border="2">

<tr><td colspan="2" align="center"> Employee Detail:</td></tr><br>

<tr><td>Employee Name:</td><td><input type="text" id="txtname"></td></tr><br>

<tr><td>Employee Number:</td><td><input type="text" id="txtnum"></td></tr><br>

<tr><td>Basic Salary:</td><td><input type="text" id="txtsal"></td></tr><br>

<tr><td><input type="button" onclick="show()" value="Salary Report"></td>

<tr><td><input type="reset" value="reset"></td></tr>

</table>

</form>

</center>

</body>

</html>

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OUTPUT:

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**8. WRITE A PROGRAM IN PHP TO CHANGE BACKGROUND COLOR BASED ON DAY OF THE WEEK USING IF ELSE IF STATEMENTS AND USING ARRAYS.**

<html>

<head>

<title>Color Change by Day</title>

<?php

$daysOfWeek=array

(

'Sunday'=>'#FF5733',

'Monday'=>'#33FF57',

'Tuesday'=>'#3357FF',

'Wednesday'=>'#FFFF33',

'Thursday'=>'#FF33FF',

'Friday'=>'#33FFFF',

'Saturday'=>'#FF3333'

);

$currentDay=date('l');

$backgroundColor='#FFFFFF';

if(array\_key\_exists($currentDay,$daysOfWeek))

{

$backgroundColor=$daysOfWeek[$currentDay];

}

?>

<style>

body

{

background-color: <?php echo $backgroundColor; ?>;

}

</style>

</head>

<body>

<h1> Welcome! Today is <?php echo $currentDay; ?>.</h1>

</body>

</html>

OUTPUT:

﻿

﻿

**9. WRITE A SIMPLE PROGRAM IN PHP FOR**

**(i)generating prime number**

**(ii)generate Fibonacci series.**

<?php

$count=0;

$num=2;

echo "<h3> Prime numbers from 1 to 50:</h3>";

echo "\n";

while($count<15)

{

$div\_count=0;

for($i=1;$i<=$num;$i++)

{

if(($num%$i)==0)

{

$div\_count++;

}

}

if($div\_count<3)

{

echo $num.",";

$count=$count+1;

}

$num=$num+1;

}

?>

<?php

$num=0;

$n1=0;

$n2=1;

echo "<h3>Fibonacci series for first 12 numbers:</h3>";

echo"\n";

echo $n1.' '.$n2.' ';

while($num<10)

{

$n3=$n2+$n1;

echo $n3.' ';

$n1=$n2;

$n2=$n3;

$num=$num+1;

}

?>

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OUTPUT:

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**10. WRITE A PHP PROGRAM TO REMOVE DUPLICATES FROM A SORTED LIST**.

<?php

function removeDuplicates($array)

{

$result = array\_values(array\_unique($array));

return $result;

}

$sortedList = [1,1,2,2,3,3,4,5,5];

$uniqueList = removeDuplicates($sortedList);

echo "Original List:";

Print\_r($sortedList);

echo "<br>Unique List:";

Print\_r($uniqueList);

?>

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OUTPUT:

﻿

**11. WRITE A PHP SCRIPT TO PRINT THE FOLLOWING PATTERN ON THE SCREEN.**

**\* \* \* \* \***

**﻿\* \* \* \***

**﻿\* \* \***

**﻿\* \***

**\***

<?php﻿

$rows=5;

for($i=$rows; $i>0; $i--)

{

for($j=$rows-$i; $j>0; $j--)

{

echo "&nbsp;";

}

for($k=0; $k<$i; $k++)

{

echo"\*";

}

echo"<br>";

}

?>

OUTPUT:

﻿

**12. WRITE A SIMPLE PROGRAM IN PHP FOR SEARCHING OF DATA BY DIFFERENT CRITERIA.**

<?php

$data=[﻿

['id' =>1, 'name'=>'Vijay','age'=>22],

['id' =>2, 'name'=>'Anu','age'=>21],

['id' =>3, 'name'=>'Sai','age'=>22],

['id' =>4, 'name'=>'Ashri','age'=>19],

['id' =>5, 'name'=>'Vyshu','age'=>20]

];

function searchByCriteria($data, $criteria)

{

$results=[];

foreach($data as $entry)

{

$match=true;

foreach($criteria as $key=>$value)

{

if(!isset($entry [$key])||$entry[$key]!=$value)

{

$match=false;

break;

}

}

if($match)

{

$results[]=$entry;

}

}

return $results;

}

$criteria=['age'=>19];

$searchResults=searchByCriteria($data,$criteria);

echo "Search Results: <br>";

print\_r($searchResults);

?>

OUTPUT:

﻿

﻿

**13. WRITE A FUNCTION IN PHP TO GENERATE CAPTCHA CODE.**

<?php

session\_start();

function generateCaptchaCode($length=6)

{

$characters='0123456789abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ';

$charactersLength=strlen($characters);

$randomString=' ';

for($i=0; $i< $length; $i++)

{

$randomString.=$characters[rand(0, $charactersLength -1)];

}

return $randomString;

}

echo "Captcha Code is : ".generateCaptchaCode();

?>

OUTPUT:

﻿

**14. WRITE A PROGRAM IN PHP TO VALIDATE INPUT.**

<html>

<head>

<title>Input Validation</title>

</head>

<body>

<form method="Post">

Name:<input type="text" name="name"><br><br>

Email:<input type="text" name="email"><br><br>

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

</form>

</body>

</html>

<?php

if ($\_SERVER["REQUEST\_METHOD"]=="POST")

{

$name=$\_POST['name'];

$email=$\_POST['email'];

if(empty($name))

{

echo "Name is required.<br><br>";

}

else

{

echo "Name:".$name."<br><br>";

}

if(empty($email))

{

echo "Email is required.<br><br>";

}

elseif(!filter\_var($email, FILTER\_VALIDATE\_EMAIL))

{

echo "Invalid email format.<br><br>";

}

else

{

echo "Email:".$email."<br><br>";

}

}

?>

OUTPUT:

﻿

**15. WRITE A PROGRAM IN PHP FOR SETTING AND RETRIEVING A COOKIE.**

<?php

$cookie\_name="UserID";

$cookie\_value="ABCD";

$expiration\_time=time()+(24\*3600);

setcookie($cookie\_name,$cookie\_value,$expiration\_time,"/");

echo "cookie '$cookie\_name' is set,<br><br><br>";

if(isset($\_COOKIE[$cookie\_name]))

{

echo "value of cookie $cookie\_name' is:".$\_COOKIE[$cookie\_name];

}

else

{

echo "Cookie named '$cookie\_name' is not set.";

}

?>

OUTPUT:

﻿

**16. WRITE A PHP PROGRAM TO CREATE A SAMPLE WEBPAGE OF A COLLEGE.**

<html>

<head>

<title> College Website </title>

<!\_CSS styles can be added here\_>

<style>

body

{

font\_family:Arial,sans-serif;

margin:20px;

}

h1

{

color:#333;

}

p

{

color:#666;

}

</style>

</head>

<body>

<header>

<h1> Welcome to our College</h1>

</header>

<nav>

<ul>

<li><a href="Home.html">Home</a></li>

<li><a href="#">About Us</a></li>

<li><a href="#">Courses</a></li>

<li><a href="#">Contact</a></li>

</ul>

</nav>

<main>

<section>

<h2>AboutOurCollege</h2>

<p>This is a breif description of our college</p>

</section>

<h2>Available Courses</h2>

<?php

$courses=['Computer Science','Engineering','Business','Arts','Science'];echo"<ul>";

foreach($courses as $course)

{

echo"<li>$course</li>";

}

echo"</ul>";

?>

</section>

<section>

<h2>Contact Information</h2>

<p>Address:123 College:Avenue,City,Country</p>

<p>Email:info@college.com</p>

<p>Phone:080-25634869</p>

</section>

</main>

<footer>

<p>&copy;

<?php

echo date("Y");

?>

Our College,All rights reserved</p>

</footer>

</body>

</html>

OUTPUT:

﻿

**17. WRITE A PROGRAM IN PHP FOR EXCEPTION HANDLING FOR**

**(i) DIVIDE BY ZERO**

**(ii) CHECKING DATE FORMAT**

<?php

function divide ($numerator, $denominator)

{

if($denominator==0) {

throw new Exception("cannot divide by zero");

}

return $numerator/$denominator;

}

function checkDateFormat($date,$format='Y-m-d') {

$dateTime=DateTime :: createFromFormat($format, $date);

if(!$dateTime||$dateTime->format($format)!=$date) {

throw new Exception("invalid date format.");

}

echo "The date" . $date . "is valid.<br>";

return true;

}

try {

echo divide(10,2). "<br>";

echo divide(10,0). "<br>";

}catch(Exception $e) {

echo "Division error:" . $e->getMessage() . "<br>";

}

try {

checkDateFormat("2023-03-10");

checkDateFormat("10/03/2023");

}catch(Exception $e) {

echo "Date error:" . $e->getMessage() . "<br>";

}

?>

OUTPUT:

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