Visvesvaraya Technological University
Belgaum, Karnataka-590 014

A Practical Assessment Report on

"Web Technology and Its Applications" (18CS63)

submitted in partial fulfillment of the requirement for the award of the degree of

Bachelor of Engineering in Computer Science & Engineering

Submitted by

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HKBK College of Engineering
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Approved by AICTE & Affiliated by VTU

Department of Computer Science & Engineering

2022-23

HKBK College of Engineering

No.22/1, Opp., Manyata Tech Park Rd, Nagavara, Bengaluru, Karnataka 560045.
Approved by AICTE & Affiliated by VTU

Department of Computer Science and Engineering

CERTIFICATE

Certified that the Practical Assessment Report **Web Technology and its Applications (18CS63)** carried out by Mr. Mohammed Shahzadul Quadri(1HK20CS093), a bonafide student of **HKBK College of Engineering**.in partial fulfilment for the award of Bachelor of Engineering / Bachelor of Technology in **Computer Science & Engineering** of the Visvesvaraya Technological University, Belgaum during the year **2022 – 23**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library. The practical assessment report has been approved as it satisfies the academic requirements.

Prof. Madhusmita B	**Dr.Deepak N R**	**Dr.Smitha Kurian**
Faculty Coordinator	Course coordinator	HOD

Evaluation Marks: Program Assessment (Max 10 Marks) _____

Practical Assessment Report (Max 10 Marks) _____

Student Signature

Total: 20

ACKNOWLEDGEMENT

I would like to express my regards and acknowledgement to all who helped me in completing this Web Technology and its Applications project successfully

First of all. I would take this opportunity to express my heartful gratitude to the personalities of HKBK college of engineering, **Mr C M Ibrahim**, **Chairman, HKBKGI** and **Mr. Faiz Mohammed**, **Director, HKBKGI** for providing facilities throughout the course.

I would like to express our thanks to the Principal **Dr. Tabassum Ara**, for her encouragement that motivated us for the successful completion of Project Work.

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I express my heartfelt appreciation and gratitude to my Course Coordinator, **Dr.Deepak N R** Professor of Computer Science and Engineering, HKBK College of Engineering, Bangalore, for his intellectually-motivating support and invaluable encouragement during my Project work.

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Department of Computer Science & Engineering

DEPARTMENT MISSION AND VISION

VISION

To advance the intellectual capacity of the nation and the international community by imparting knowledge to graduates who are globally recognized as innovators, entrepreneur and competent professionals.

MISSION

[M - 1]. To provide excellent technical knowledge and computing skills to make the graduates globally competitive with professional ethics.

[M - 2]. To involve in research activities and be committed to lifelong learning to make positive contributions to the society. Institute

INSTITUTE MISSION AND VISION

VISION

To empower students through wholesome education and enable the students to develop into highly qualified and trained professionals with ethics and emerge as responsible citizen with broad outlook to build a vibrant nation.

MISSION

[M - 1]. To achieve academic excellence through in-depth knowledge in science, engineering and technology through dedication to duty, innovation in teaching and faith in human values.

[M - 2]. To enable our students to develop into outstanding professionals with high ethical standards to face the challenges of the 21st century

[M - 3]. To provide educational opportunities to the deprived and weaker section of the society, to uplift their socio-economic status.

PROGRAM OUTCOMES(PO'S)

[PO-1]. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

[PO-2]. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

[PO-3]. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

[PO-4]. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

[PO-5]. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

[PO-6]. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

[PO-7]. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

[PO-8]. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

[PO-9]. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

[PO-10]. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

[PO-11]. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

[PO-12]. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technologicalchange

PROGRAM SPECIFIC OUTCOMES (PSOs)

[PSO-1]. Problem-Solving Skills: An ability to investigate and solve a problem by analysis, interpretation of data, design and implementation through appropriate techniques, tools and skills.

[PSO-2]. Professional Skills: An ability to apply algorithmic principles, computing skills and computer
science theory in the modelling and design of computer-based systems.

[PSO-3]. Entrepreneurial Ability: An ability to apply design, development principles and management skills in the construction of software product of varying complexity to become an entrepreneur.

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

[PEO-1]. To provide students with a strong foundation in engineering fundamentals and in the computer science and engineering to work in the global scenario.

[PEO-2]. To provide sound knowledge of programming and computing techniques and good communication and interpersonal skills so that they will be capable of analyzing, designing and building innovative software systems.

[PEO-3]. To equip students in the chosen field of engineering and related fields to enable him to work in multidisciplinary teams.

[PEO-4]. To inculcate in students professional, personal and ethical attitude to relate engineering issues to broader social context and become responsible citizen.

[PEO-5]. To provide students with an environment for life-long learning which allow them to successfully adapt to the evolving technologies throughout their professional career and face the global challenges.

WEB TECHNOLOGY AND ITS APPLICATIONS
Teaching Learning Plan

Course Code	**18CS63**	CIE Marks	40
Teaching Hours/Week (L:T:P: S)	0:3:2:0	SEE Marks	60
Total Hours of Pedagogy	50	Total Marks	100
Credits	03	Exam Hours	03

Pre-requisite:

Students need basic understanding of statics, probability theory, logical reasoning, programming in Object Oriented Concepts, and high level languages Java.

Course Objectives:

- Illustrate the Semantic Structure of HTML and CSS.
- Compose forms and tables using HTML and CSS.
- Design Client-Side programs using JavaScript and Server-Side programs using PHP.
- Infer Object Oriented Programming capabilities of PHP.
- Examine JavaScript frameworks such as jQuery and Backbone.

Course Outcomes (Course Skill Set)
At the end of the course the student will be able to:

Sl. No	Course Outcome	Description	Bloom's Taxonomy Level
1.	CO 1	Adapt HTML and CSS syntax and semantics to build web pages	Understanding (2) Applying (3)
2.	CO2	Construct and visually format tables and forms using HTML and CSS	Understanding (2) Applying (3)
3.	CO3	Develop Client-Side Scripts using JavaScript and Server-Side Scripts using PHP to generate and display the contents dynamically.	Understanding (2) Applying (3)
4.	CO4	Appraise the principles of object oriented development using PHP.	Understanding (2) Applying (3)
5.	CO5	Inspect JavaScript frameworks like jQuery and Backbone which facilitates developer to focus on core features.	Understanding (2) Applying (3)

TABLE OF CONTENT

Content Beyond Syllabus

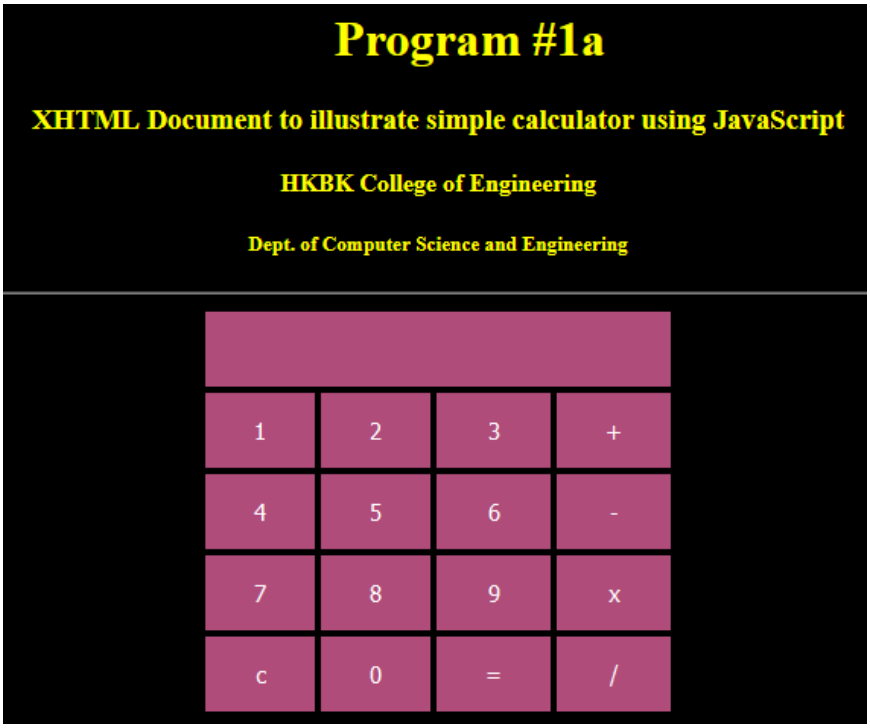
PROGRAM 1:

Write a JavaScript to design a simple calculator to perform the following operations: sum, product, difference and quotient.

```
<html> <head>
<title> Simple Calculator - Web lab Program 1</title>

<style>
input {
background-color: #af4c7a;
border: none;
color: white;
width: 100%;
padding: 15px 32px;
text-align: center;
text-decoration: none;
display: inline-block;
font-size: 15px;
}
</style>

</head>
<body bgcolor="black" text="yellow" >
<h1> <marquee> Program #1a </marquee> </h1>
                <center><h3>XHTML Document to illustrate simple calculator using
JavaScript</h3>
<h4>HKBK College of Engineering</h4>
<h5>Dept. of Computer Science and Engineering</h5></center>
<hr>
<center>
<form name="calculator">
<table>
<tr>
<td colspan="4">
<input type="text" name="display" disabled>
</td>
</tr>
<tr>
      <td><input type="button"  value="1" onclick="calculator.display.value += '1'"></td>
      <td><input type="button"  value="2" onclick="calculator.display.value += '2'"></td>
      <td><input type="button"  value="3" onclick="calculator.display.value += '3'"></td>
      <td><input type="button"  value="+" onclick="calculator.display.value += '+'"></td>
</tr>
<tr>
      <td><input type="button" value="4" onclick="calculator.display.value += '4'"></td>
      <td><input type="button" value="5" onclick="calculator.display.value += '5'"></td>
      <td><input type="button" value="6" onclick="calculator.display.value += '6'"></td>
```

```
        <td><input type="button" value="-" onclick="calculator.display.value += '-'"></td>
</tr>
<tr>
        <td><input type="button" value="7" onclick="calculator.display.value += '7'"></td>
        <td><input type="button" value="8" onclick="calculator.display.value += '8'"></td>
        <td><input type="button" value="9" onclick="calculator.display.value += '9'"></td>
        <td><input type="button" value="x" onclick="calculator.display.value += '*'"></td>
</tr>
<tr>
<td><input type="button" value="c" onclick="calculator.display.value = ''"></td>
        <td><input type="button" value="0" onclick="calculator.display.value += '0'"></td>
          <td><input type="button" value="=" onclick="calculator.display.value =
 eval(calculator.display.value)">
                    </td>
        <td><input type="button" value="/" onclick="calculator.display.value += '/'"></td>
</tr>
</table>
</form>
</center>
</body>

</html>
```

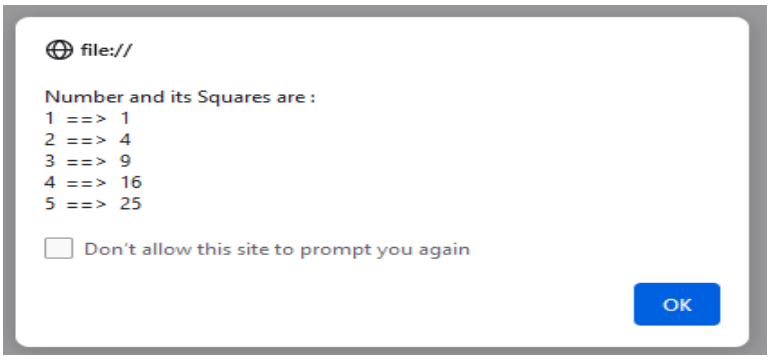
OUTPUT:



PROGRAM 2:

Write a JavaScript that calculates the squares and cubes of the numbers from 0 to 10 and outputs HTML text that displays the resulting values in an HTML table format.

```
<html xmlns = "http://www.w3.org/1999/xhtml">
<head>
<title>NUMBERS & SQURES</title> </head>

<body bgcolor="black" text="yellow" >
<h1> <marquee> Program #1b </marquee> </h1>
<center><h3>XHTML Document to illustrate Number & Square using JavaScript</h3>
<h4>HKBK College of Engineering</h4>
<h5>Dept. of Computer Science and Engineering</h5></center> <hr>

<script type="text/javascript">
var num = prompt("Enter a
number : \n", "");if(num >0
&& num !=null)
{
var str="Number and its Squares
are : \n";for(i=1;i <= num; i++)
{
str = str + i + "  ==>  " + i*i + "\n";
}
alert(str)
} else alert("Not a proper Input Specify Number only");
</script>

</body>
</html>
```



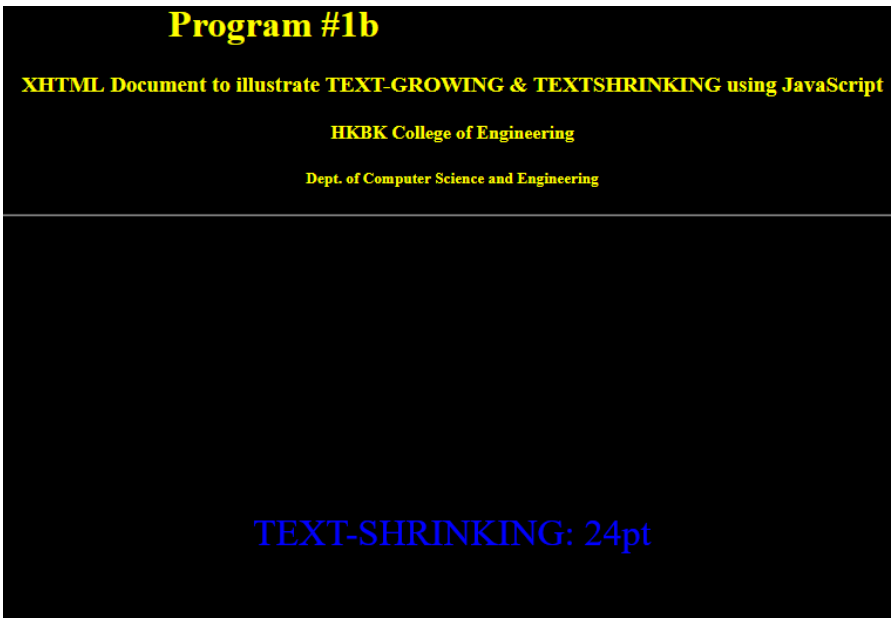
PROGRAM 3:

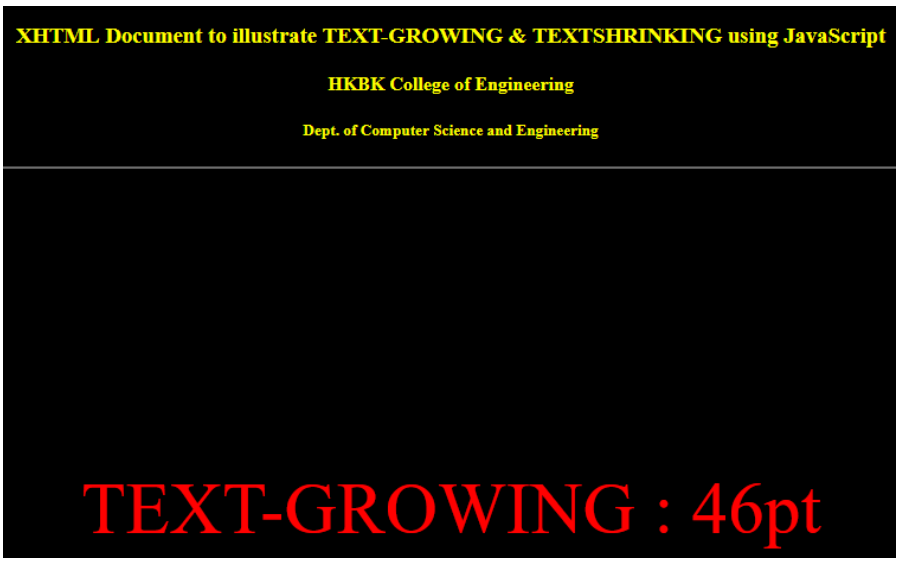
Write a JavaScript code that displays text "TEXT-GROWING" with increasing font size in the interval of 100ms in RED COLOR, whenthe font size reaches 50pt it displays "TEXTSHRINKING" in BLUEcolor. Then the font size decreases to 5pt.

```
<html>
<head>
<title> Program 3 JavaScript - Grow & Shrink Text</title>
<script>
var font=0;
loading;
function start()
{
loading = window.setInterval("incr()", 100);
}
function incr()
{
font = font + 1;
display.innerHTML = "TEXT-GROWING : " + font
+ "pt";display.style.fontSize = font + "pt";
if (font > 50) {
window.clearTimeout(loading);
loading = window.setInterval("decr()", 100);
}
display.style.color = "red";
}
function decr()
{
font = font - 1;
display.innerHTML = "TEXT-SHRINKING: "
+ font + "pt";display.style.fontSize = font +
"pt";
if (font == 5)
{
window.clearTimeout(loading);
loading = window.setInterval("incr()", 100);
}
display.style.color = "blue";
}
```

```
</script>
</head>
<body bgcolor="black" text="yellow" onload="start()" >
<h1> <marquee> Program #1b </marquee> </h1>
<center><h3>XHTML Document to illustrate TEXT-GROWING &
TEXTSHRINKING usingJavaScript</h3>
<h4>HKBK College of Engineering</h4>
<h5>Dept. of Computer Science and Engineering</h5></center> <hr>

<center>
<p style="margin-top:250px" id="display"></p>
</center>
</body>
</html>
```

OUTPUT:





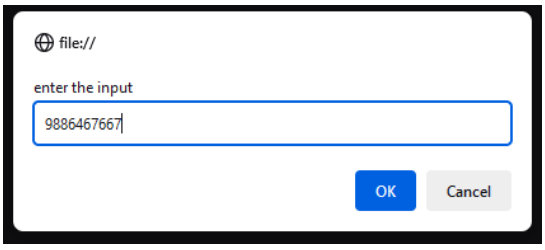
PROGRAM 4:

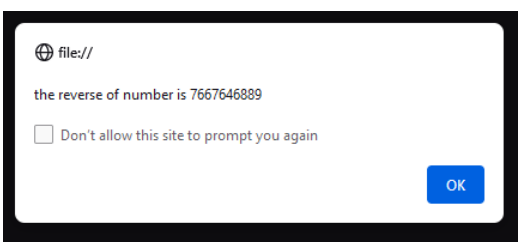
Develop and demonstrate a HTML5 file that includes JavaScript script that uses functions for the following problems:

a. Parameter: A string
Output: The position in the string of the left-most vowel
b. Parameter: A number
Output: The number with its digits in the reverse order

```
<!DOCTYPE html>
<html>
<body bgcolor="black" text="yellow" onload="start()" >
<h1> <marquee> Program #1b NR </marquee> </h1>
<center><h3>XHTML Document to illustrate left-most vowel & reverse order using
JavaScript</h3>
<h4>HKBK College of Engineering</h4>
<h5>Dept. of Computer Science and Engineering</h5></center> <hr>

<script>
var str=prompt("enter the input");
if(isNaN(str)) {
str=str.toUpperCase(); for(var i=0;i<str.length;i++)
 { var char=str.charAt(i);
if(char=="A"||char=="E"||char=="I"||char=="O"||char=="U") break;
}
if(i<str.length)
alert("the pos of le most vowel is "+(i+1)); else
alert("no vowel found");
}
else {
var str=parseInt(str); var a,b,temp=0; b=str;
while(b>0) {
a=parseInt(b%10); b=parseInt(b/10); temp=temp*10+a;
}
alert("the reverse of number is "+ temp);
}
</script>
</body>
</html>
```

OUTPUT:





PROGRAM 5:

Design an XML document to store information about a student in an engineering college affiliated to VTU. The information must include USN, Name, and Name of the College, Programme, Year of Joining, and email id. Make up sample data for 3 students. Create a CSS style sheet and use it to display the document.

```
<?xml version="1.0" ?>
<?xml-stylesheet href="Prog_4a.css" type="text/css" ?>
<studentlist>
<student>
<usn>1HK20CS084</usn>
<name>Mohammed FAIZ </name>
<college>HKBK College of Engineering </college>
<branch>Computer Science</branch>
<joindate>12-7-2002</joindate>
<email>mohammedfaiz@gmail.com</email>
</student>
<student>
<usn>1HK20CS090</usn>
<name>Mohammed Mustafa</name>
<college>HKBK College of Engineering </college>
<branch>Computer Science</branch>
<joindate>01-01-2002</joindate>
<email>yashvanthks@gmail.com</email>
</student>
<student>
<usn>1HK20CS178</usn>
<name>Vignesh V </name>
<college>HKBK College of Engineering </college>
<branch>Computer Science</branch>
<joindate>29-06-2003</joindate>
<email>vadeviggu@gmail.com</email>
</student>
</studentlist>
*{
}
usn
```

Prog4a.css

```
background:black; color:yellow;

{ display: block; margin-top: 15px; font-size: 14pt; font-style: italic; } name {
display: block; font-size: 13pt; color: green; }
college { display: block; font-size: 13pt; color: green; } branch { display: block;
font-size: 13pt; color: green; } joindate { display: block; font-size: 13pt; color:
green;
```

OUTPUT:

```
1HK20CS095
Mohammed Tamheed Shariff
Computer Science
28-12-2001
Shariff@gmail.com

1HK20CS093
Mohammed Shazaad
Computer Science
26-02-2003
Shazaad@gmail.com
```

PROGRAM 6:

Write a PHP program to keep track of the number of visitors visiting the web page and to display this count of visitors, with proper headings.

```
<?php
$fp = fopen("counterlog.txt", "r");
$count = fread($fp, 10); fclose($fp);
$count = $count + 1;
echo "<p>Page views:" . $count . "</p>";
$fp = fopen("counterlog.txt", "w"); fwrite($fp, $count);
fclose($fp);
?>
```

OUTPUT:

PROGRAM 7:

Write a PHP program to display a digital clock which displays the current time of the server.

```
<?php
date_default_timezone_set('Asia/Kolkata');
echo date('d/m/Y == h:i:s A');
$x = $_SERVER['PHP_SELF'];
$T = "10";
header("Refresh: $T; url=$x"); #updates after every 1second
?>
```

OUTPUT:

PROGRAM 8:

Write the PHP programs to do the following:

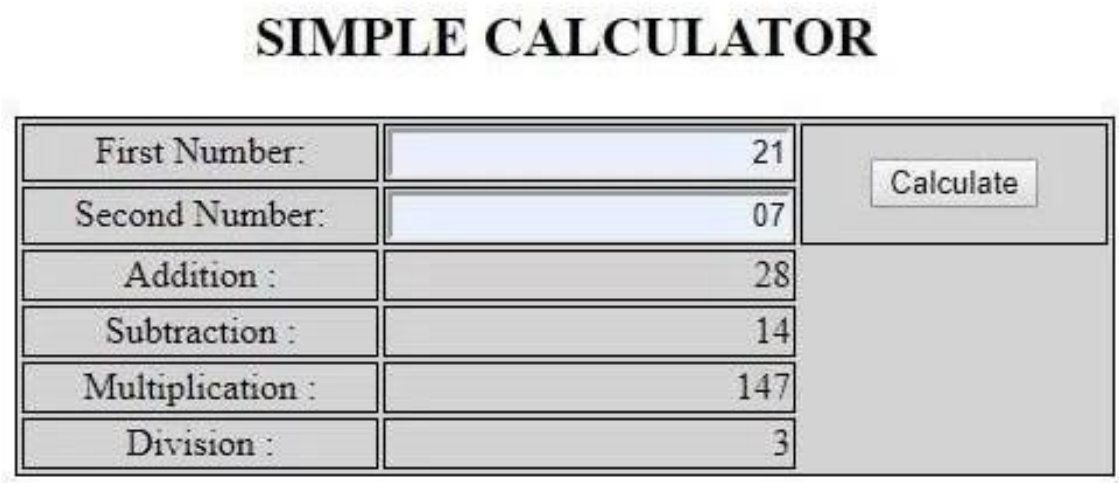
- **Implement simple calculator operations.**
- **Find the transpose of a matrix.**
- **Addition of two matrices.**
- **Multiplication of two matrices.**

PROGRAM 8 A Implement simple calculator operations.

```
<?php
if(isset($_POST['res'])){
$res = $_POST['display'];
$res = eval('return '.$res.';');
}
?>
<html>
<head>
<title> Simple Calculator Using PHP - Web lab Program 8a</title>
<style> input {
background-color: #af4c7a; border: none;
color: white; width: 100%;
padding: 15px 32px; text-align: center; text-decoration: none; display: inline-block; font-
size: 15px;
}
</style>
</head>
<body>		<center>
<h2> Calculator Using PHP</h2>
<form name="calculator" method="post">
<table>
<tr>
<td colspan="4">
		<input type="text" name="display" value="<?php if(isset($res)){ echo
$res;}?>" >


</td>
</tr>
<tr>
<td><input type="button" value="1" onclick="calculator.display.value += '1'"></td>
<td><input type="button" value="2" onclick="calculator.display.value += '2'"></td>
<td><input type="button" value="3" onclick="calculator.display.value += '3'"></td>
<td><input type="button" value="+" onclick="calculator.display.value += '+'"></td>
</tr>
<tr>
<td><input type="button" value="4" onclick="calculator.display.value += '4'"></td>
<td><input type="button" value="5" onclick="calculator.display.value += '5'"></td>
<td><input type="button" value="6" onclick="calculator.display.value += '6'"></td>
<td><input type="button" value="-" onclick="calculator.display.value += '-'"></td>
</tr>
```

```
<tr>
<td><input type="button" value="7" onclick="calculator.display.value += '7'"></td>
<td><input type="button" value="8" onclick="calculator.display.value += '8'"></td>
<td><input type="button" value="9" onclick="calculator.display.value += '9'"></td>
<td><input type="button" value="x" onclick="calculator.display.value += '*'"></td>
</tr>
<tr>
<td><input type="button" value="c" onclick="calculator.display.value = ""></td>
<td><input type="button" value="0" onclick="calculator.display.value += '0'"></td>
<td><input type="submit" value="=" name="res"></td>
<td><input type="button" value="/" onclick="calculator.display.value += '/'"></td>
</tr>
</table>
</form>
</center>
</body>
</html>
```

OUTPUT:



PROGRAM 8 B Find the transpose of a matrix.

```
<?php
$trans = array(          array(1, 2,9),       array(3, 4,9),   array(5, 6,9)    ); echo "";
for ($row = 0; $row < 3; $row++) { echo "\n";
for ($col = 0; $col < 3; $col++) { echo " ".$trans[$row][$col];
}}
echo " \n\n Transpose of Matrix "; for ($row = 0; $row < 3; $row++) { echo "\n ";
for ($col = 0; $col < 3; $col++) { echo " ".$trans[$col][$row];
}}
?>
```

OUTPUT:

```
1 2 9
 3 4 9
 5 6 9

 Transpose of Matrix
  1 3 5
  2 4 6
  9 9 9
```

PROGRAM 8 C Multiplication of two matrices.

```
<?php
$a1 = Array('0' => Array('0' => 1,'1' => 2),'1' => Array('0' => 4,'1' => 5));
$a2 = Array('0' => Array('0' => 1,'1' => 2),'1' => Array('0' => 4,'1' => 5));
$sumArray = array();
$result = array();
for($i=0; $i<=1; $i++) { for($j=0; $j<=1; $j++) {
$result[$i][$j] = $a1[$i][$j] + $a2[$i][$j];
}
}
echo "<p> matrix one </p>"; echo "<pre/>";print_r($a1); echo "<p> matrix Two</p>";
echo "<pre/>";print_r($a2);
echo "<p> matrix Addition</p>"; echo "<pre/>";print_r($result);
?>
```

PROGRAM 9:

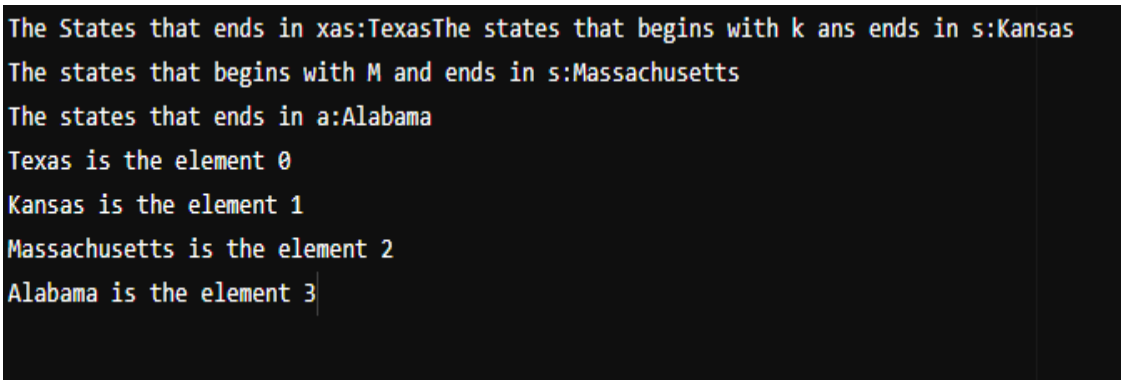
Write a PHP program named states.py that declares a variable states with value "Mississippi Alabama Texas Massachusetts Kansas". write a PHP program that does the following:

- **•Search for a word in variable states that ends in xas. Store this word in element 0 of a list named statesList.**
- **•Search for a word in states that begins with k and ends in s. Perform a case-insensitive comparison. [Note: Passing re.Ias a second parameter to method compile performs a case- insensitive comparison.] Store this word in element1 of statesList.**
- **•Search for a word in states that begins with M and ends in s. Store this word in element 2 of the list.**
- **•Search for a word in states that ends in a. Store this word in element 3 of the list.**

```
<?php

$allTheStates = "Mississippi Alabama Texas Massachusetts Kansas";
$statesArray = [];
$states1 = explode(' ', $allTheStates);
$i = 0;
//states that ends in xas foreach ($states1 as $state)
{
if (preg_match('/xas$/', ($state))) {
$statesArray[$i] = ($state);
$i = $i + 1;
print "\nThe States that ends in xas:" . $state;
}
}
//states that begins with k and ends in s foreach ($states1 as $state)
{
if (preg_match('/^k.*s$/i', ($state))) {


$statesArray[$i] = ($state);
$i = $i + 1;
echo "\nThe states that begins with k ans ends in s:" . $state;
}
}
//states that begins with M and ends in s foreach($states1 as $state)
{
if (preg_match('/^M.*s$/', ($state))) {
$statesArray[$i] = ($state);
$i = $i + 1;
echo "\nThe states that begins with M and ends in s:" . $state;
}
}
//states that ends in a foreach($states1 as $state)
{
if (preg_match('/a$/', ($state))) {
$statesArray[$i] = ($state);
$i = $i + 1;
```

```
echo "\nThe states that ends in a:" . $state;
}
}
foreach ($statesArray as $element => $value) { print( "\n" . $value . " is the element " .
$element);
}
?>
```

OUTPUT:



PROGRAM 10:

Write a PHP program to sort the student records which are stored in the database using selection sort.

```
<html>
<head>
<style>
table, td, th
{
border: 1px solid black; width: 33%;
text-align: center;
border-collapse:collapse; background-color:lightblue;
}
table { margin: auto; }
</style>
</head>
<body>
<?php
$servername = "localhost";
$username = "root";
$password = "";
$dbname = "weblab";
$a=[];
// Create connection
// Opens a new connection to the MySQL server
$conn = mysqli_connect($servername, $username, $password, $dbname);
// Check connection and return an error description from the last connection error, if any if
($conn->connect_error)
die("Connection failed: " . $conn->connect_error);
$sql = "SELECT * FROM students";
// performs a query against the database
$result = $conn->query($sql); echo "<br>";
echo "<center> BEFORE SORTING </center>"; echo "<table border='2'>";
echo "<tr>";
echo "<th>USN</th><th>NAME</th><th>Address</th></tr>"; if ($result->num_rows> 0)
{
}
}
else

// output data of each row and fetches a result row as an associative array while($row =
$result->fetch_assoc()){
echo "<tr>";
echo "<td>". $row["usn"]."</td>";
echo "<td>". $row["name"]."</td>";
echo "<td>". $row["sem"]."</td></tr>"; array_push($a,$row["usn"]);

echo "Table is Empty"; echo "</table>";
$n=count($a);
$b=$a;
```

```
for ( $i = 0 ; $i< ($n - 1) ; $i++ )
{
$pos= $i;
for ( $j = $i + 1 ; $j < $n ; $j++ ) { if ( $a[$pos] > $a[$j] )
$pos= $j;
}
if ( $pos!= $i ) {
$temp=$a[$i];
$a[$i] = $a[$pos];
$a[$pos] = $temp;
}
}
$c=[];
$d=[];
                        $result = $conn->query($sql);

if ($result->num_rows> 0)// output data of each row
{
while($row = $result->fetch_assoc()) { for($i=0;$i<$n;$i++) { if($row["usn"]== $a[$i]) {
$c[$i]=$row["name"];
$d[$i]=$row["sem"];
}
}
}
}
echo "<br>";
echo "<center> AFTER SORTING <center>"; echo "<table border='2'>";
echo "<tr>";
echo "<th>USN</th><th>NAME</th><th>Address</th></tr>"; for($i=0;$i<$n;$i++) {
echo "<tr>";
echo "<td>". $a[$i]."</td>";
echo "<td>". $c[$i]."</td>"; echo "<td>". $d[$i]."</td></tr>";
}
echo "</table>";
$conn->close();
?>
</body>
</html>
```

Content Beyond Syllabus

1. JavaScript Program

a. Write a JavaScript program, if we click OK output should be factorial of a number else it has to print Fibonacci of a number (hint using confirm window) on webpage 1 txt box to enter number and click on submit, in JavaScript program u should use confirm window to ask the user to click OK or CANCEL, if OK fact else Fib

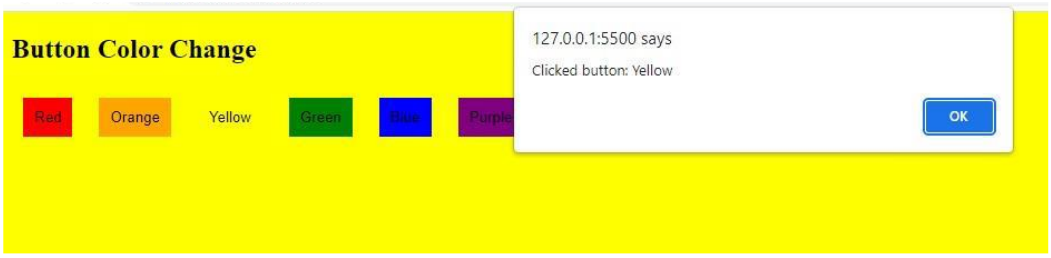
```
<!DOCTYPE html>
<html>
<head>
<title>Factorial or Fibonacci</title>
<script>
function calculate() {
var number = parseInt(document.getElementById("number").value);

if (confirm("Click OK for factorial or CANCEL for Fibonacci.")) { var result =
factorial(number);
alert("Factorial of " + number + " is: " + result);
} else {
var result = fibonacci(number);
alert("Fibonacci of " + number + " is: " + result);
}
}

function factorial(n) {
if (n === 0 || n === 1) { return 1;
} else {
return n * factorial(n - 1);
}
}
function fibonacci(n) { if (n <= 1) {
return n;
} else {
return fibonacci(n - 1) + fibonacci(n - 2);
}
}
</script>
</head>
<body>
<h2>Factorial or Fibonacci</h2>
<label for="number">Enter a number:</label>
<input type="text" id="number">
<button onclick="calculate()">Submit</button>
</body>
</html>
```

OUTPUT:

b.Write a JS program, Create 6 button by color name, on mouse over on button background color of page has to change onclick it has to give alert msg which button we have clicked

```
<!DOCTYPE html>
<html>
<head>
<title>Button Color Change</title>
<style> body {
background-color: #fff;
}
.button { margin: 10px; padding: 10px; border: none;
cursor: pointer;
}
</style>
<script>
function changeBackgroundColor(color) { document.body.style.backgroundColor = color;
}
function displayButtonName(buttonName) { alert("Clicked button: " + buttonName);
}
</script>
</head>
<body>
<h2>Button Color Change</h2>
<button class="button" style="background-color: red"
onmouseover="changeBackgroundColor('red')"
onclick="displayButtonName('Red')">Red</button>
<button class="button" style="background-color: orange"
onmouseover="changeBackgroundColor('orange')"
onclick="displayButtonName('Orange')">Orange</button>
<button class="button" style="background-color: yellow"
onmouseover="changeBackgroundColor('yellow')"
onclick="displayButtonName('Yellow')">Yellow</button>
<button class="button" style="background-color: green"
onmouseover="changeBackgroundColor('green')"
onclick="displayButtonName('Green')">Green</button>
<button class="button" style="background-color: blue"
onmouseover="changeBackgroundColor('blue')"
onclick="displayButtonName('Blue')">Blue</button>
<button class="button" style="background-color: purple"
onmouseover="changeBackgroundColor('purple')"
onclick="displayButtonName('Purple')">Purple</button>
</body>
</html>
```

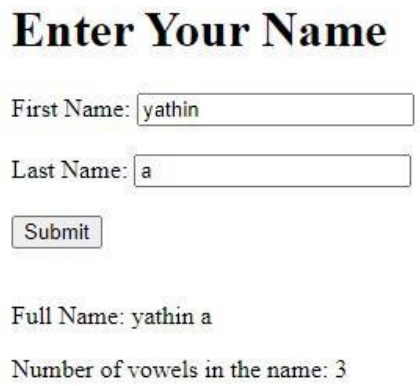
OUTPUT:



c.Write a JS, to accept first name and last name Print fill name Number of vowels in name

```
<!DOCTYPE html>
<html>
<head>
<title>Full Name and Vowel Count</title>
<script type="text/javascript"> function countVowels(str) {
const vowels = ['a', 'e', 'i', 'o', 'u']; let count = 0;
for (let char of str.toLowerCase()) { if (vowels.includes(char)) {
count++;
}
}
return count;
}
function displayFullNameAndVowels() {
const firstName = document.getElementById('firstName').value; const lastName =
document.getElementById('lastName').value; const fullName = firstName + ' ' + lastName;
const vowelCount = countVowels(fullName);
document.getElementById('fullName').textContent = 'Full Name: ' + fullName;
document.getElementById('vowelCount').textContent = 'Number of vowels in the name: ' +
vowelCount;
}
</script>
</head>
<body>
<h1>Enter Your Name</h1>
<label for="firstName">First Name:</label>
<input type="text" id="firstName"><br><br>
<label for="lastName">Last Name:</label>
<input type="text" id="lastName"><br><br>
<button onclick="displayFullNameAndVowels()">Submit</button><br><br>
<p id="fullName"></p>
<p id="vowelCount"></p>
</body>
```

OUTPUT:



2.PHP - STRING HANDLING

a.Write and execute the program without using sting pre-defined functions

- **string length**

```
<?php
function getStringLength($string) {
$length = 0;
while (isset($string[$length])) {
$length++;
}
return $length;
}
$inputString = “Hello world”;
$lenofstring = getStringLength($inputString);
Echo $lenofString;
?>
```

OUTPUT: 13

- **string reverse**

```
<?php
function reverseString($str) {
$reversed = '';
$length = strlen($str);
for ($i = $length - 1; $i >= 0; $i--) {
$reversed .= $str[$i];
}
return $reversed;
}
// Example usage
$inputString = "Hello, World!";
$reversedString = reverseString($inputString);
echo $reversedString;
?>
```

OUTPUT: !dlroW ,olleH

- **string replacement**

```
<?php
function replaceString($str, $search, $replace) {
$result = '';
$length = strlen($str);
$searchLength = strlen($search);
$currentIndex = 0;
while ($currentIndex < $length) {
$pos = strpos($str, $search, $currentIndex);
if ($pos === false) {
$result .= substr($str, $currentIndex);
break;
}
$result .= substr($str, $currentIndex, $pos - $currentIndex) . $replace;
$currentIndex = $pos + $searchLength;
}
return $result;
}
// Example usage
$inputString = "Hello, World!";
$searchString = "o";
$replaceString = "a";
$modifiedString = replaceString($inputString, $searchString, $replaceString);
echo $modifiedString;
?>
```

OUTPUT: He is a bad boy

3.File Handling- Try Catch block

a.write a program from try catch block for

- **Divide by zero**

```
<?php
try {
$a = 10;
$b = 0;
if ($b === 0) {
throw new Exception("Division by zero error.");
}
$result = $a / $b;
echo "Result: " . $result;
} catch (Exception $e) {
echo "Exception caught: " . $e->getMessage();
}
?>
```

OUTPUT: Exception caught: Division by zero error.

- **File handling**

```
<?php
$file = fopen("example.txt", "r");
if ($file) {
while (($line = fgets($file)) !== false) {
echo $line;
}
fclose($file);
} else {
echo "Failed to open the file.";
}
$file = fopen("example.txt", "w");
if ($file) {
$text = "Hello, World!";
fwrite($file, $text);
fclose($file);
} else {
echo "Failed to open the file.";
}
?>
```

- **Database Handling**

```
<?php
$servername = "localhost";
$username = "your_username";
$password = "your_password";
$database = "your_database";
$conn = new mysqli($servername, $username, $password, $database);
if ($conn->connect_error) {
die("Connection failed: " . $conn->connect_error);
}
```

```
$sql = "SELECT * FROM users";
$result = $conn->query($sql);
if ($result) {
while ($row = $result->fetch_assoc()) {
echo "User ID: " . $row["id"] . "<br>";
echo "Username: " . $row["username"] . "<br>";
echo "Email: " . $row["email"] . "<br><br>";
}
} else {
echo "Error executing the query: " . $conn->error;
}
$conn->close();
?>
```

b.Write a program to print a value inside file

```
<?php
$value = "Hello, World!";
$filename = "output.txt";
$file = fopen($filename, "w");
if ($file) {
fwrite($file, $value);
fclose($file);
echo "Value has been written to $filename.";
} else {
echo "Failed to open the file.";
}
?>
```

c.write a program to check how many vowels present in a file

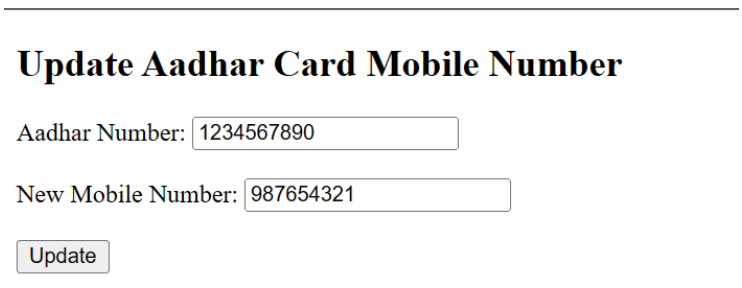
```
<?php
$file = 'path/to/your/file.txt';
$fileContents = file_get_contents($file);
$vowelCount = 0;
$vowels = ['a', 'e', 'i', 'o', 'u'];
$fileContents = strtolower($fileContents);
for ($i = 0; $i < strlen($fileContents); $i++) {
$char = $fileContents[$i];
if (in_array($char, $vowels)) {
$vowelCount++;
}
}
echo "Number of vowels in the file: $vowelCount";
?>
```

4.MYSQL - PHP Connection

a.Execute a PHP program to update the Mobile number for your Aadhar Card

```
<!DOCTYPE html>
<html>
<head>
<title>Update Aadhar Card Mobile Number</title>
</head>
<body>
<h2>Update Aadhar Card Mobile Number</h2>
<?php
$servername = localhost";
$username = “root”;
$password = " ";
$dbname = "ac”;
if ($_SERVER["REQUEST_METHOD"] == "POST") {
$aadharNumber = $_POST['aadhar_number'];
$newMobileNumber = $_POST['new_mobile_number'];
$conn = mysqli_connect($servername, $username, $password, $dbname);
if (!$conn) {
die("Connection failed: " . mysqli_connect_error());
}
$sql = "UPDATE aadhar_cards SET mobile_number = '$newMobileNumber' WHERE
aadhar_number = '$aadharNumber'";
if (mysqli_query($conn, $sql)) {
echo "Mobile number updated successfully!";
} else {
echo "Error: " . $sql . "<br>" . mysqli_error($conn);
}
mysqli_close($conn);
}
?>
<form method="post" action="<?php echo $_SERVER['PHP_SELF']; ?>">
<label for="aadhar_number">Aadhar Number:</label>
<input type="text" name="aadhar_number" id="aadhar_number" required><br><br>
<label for="new_mobile_number">New Mobile Number:</label>
<input type="text" name="new_mobile_number" id="new_mobile_number"
required><br><br>
<input type="submit" value="Update">
</form>
</body>
</html>
```

OUTPUT:



b.Execute a PHP program to display USN, name ,mobile no of all students who have more than 60

```
<!DOCTYPE html>
<html>
<head>
<title>Students with more than 60% Marks</title>
</head>
<body>
<h2>Students with more than 60% Marks</h2>
<?php
$servername = localhost";
$username = “root”;
$password = " ";
$dbname = "stud”;
$conn = mysqli_connect($servername, $username, $password, $dbname);
if (!$conn) {
die("Connection failed: " . mysqli_connect_error());
}
$sql = "SELECT USN, name, mobile_number FROM students WHERE percentage > 60";
$result = mysqli_query($conn, $sql);
if (mysqli_num_rows($result) > 0) {
echo "<table>
<tr>
<th>USN</th>
<th>Name</th>
<th>Mobile Number</th>
</tr>";
while ($row = mysqli_fetch_assoc($result)) {
echo "<tr>
<td>" . $row['USN'] . "</td>
<td>" . $row['name'] . "</td>
<td>" . $row['mobile_number'] . "</td>
</tr>";
}
echo "</table>";
} else {
echo "No students found with more than 60% marks.";
}
mysqli_close($conn);
?>
</body>
</html>
```

OUTPUT:

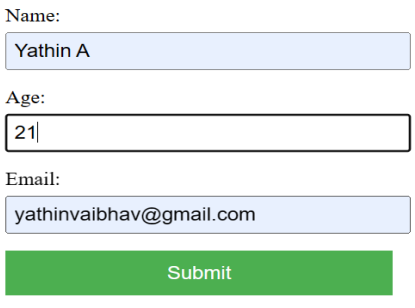
Students with More than 60% Marks

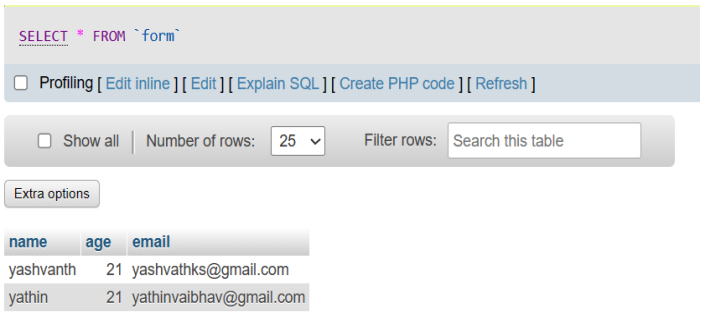
USN	NAME	MOBILE
1HK20CS143	SANTOSH	23789
1HK20CS178	VIGGU	23457
1HK20CS185	YASHVANTH	12345
1HK20CS186	YATHIN	67890

c.Execute a PHP program to insert value to the database

```
<!DOCTYPE html>
<html>
<head>
<title>Insert Values into Database</title>
</head>
<body>
<h2>Insert Values into Database</h2>
<?php
if ($_SERVER["REQUEST_METHOD"] == "POST") {
$servername = localhost";
$username = “root”;
$password = " ";
$dbname = "sam”;
$name = $_POST['name'];
$age = $_POST['age'];
$email = $_POST['email'];
$conn = mysqli_connect($servername, $username, $password, $dbname);
if (!$conn) {
die("Connection failed: " . mysqli_connect_error());
}
$
if (mysqli_query($conn, $sql)) {
echo "Values inserted successfully!";
} else {
echo "Error: " . $sql . "<br>" . mysqli_error($conn);
} mysqli_close($conn);
}
?>
<form method="post" action="<?php echo $_SERVER['PHP_SELF']; ?>">
<label for="name">Name:</label>
<input type="text" name="name" id="name" required><br><br>
<label for="age">Age:</label>
<input type="number" name="age" id="age" required><br><br>
<label for="email">Email:</label>
<input type="email" name="email" id="email" required><br><br>
<input type="submit" value="Insert">
</form>
</body>
</html>
```

OUTPUT:





d.**Execute a PHP code to validate login credentials, to check for user name and password**

```
<!DOCTYPE html>
<html>
<head>
<title>Login Page</title>
</head>
<body>
<h2>Login Page</h2>
<form method="post" action="<?php echo $_SERVER['PHP_SELF']; ?>">
<label for="username">Username:</label>
<input type="text" name="username" id="username" required><br><br>
<label for="password">Password:</label>
<input type="password" name="password" id="password" required><br><br>
<input type="submit" value="Login">
</form>
</body>
</html>
<?php
$servername = "<YOUR_SERVER_NAME>";
$username = "<YOUR_USERNAME>";
$password = "<YOUR_PASSWORD>";
$dbname = "<YOUR_DATABASE_NAME>";
if ($_SERVER["REQUEST_METHOD"] == "POST") {
$username = $_POST['username'];
$password = $_POST['password'];
$conn = mysqli_connect($servername, $username, $password, $dbname);
if (!$conn) {
die("Connection failed: " . mysqli_connect_error());
}
$sql = "SELECT * FROM users WHERE username = '$username' AND password =
'$password'";
$result = mysqli_query($conn, $sql);
if (mysqli_num_rows($result) == 1) {
echo "Login successful!";
} else {
echo "Invalid username or password!";
}
mysqli_close($conn);
}
?>
```

OUTPUT:

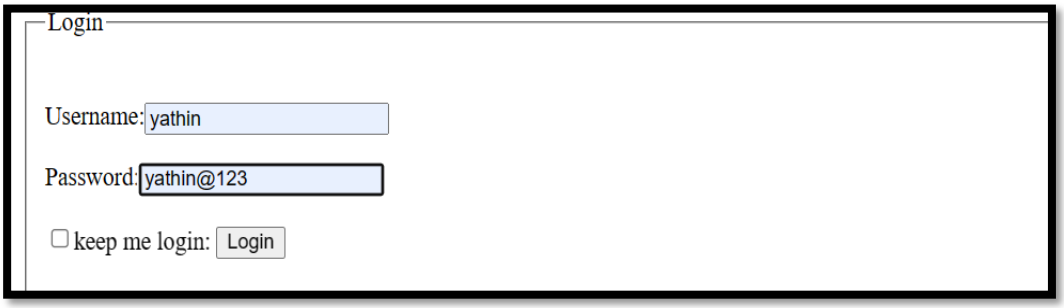
5.Session and Cookies- Login Pages

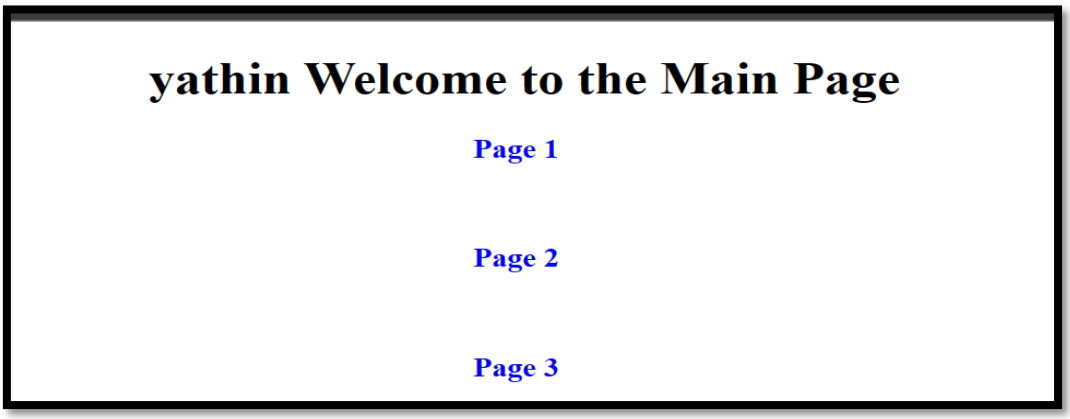
Design a website for login credentials which carries your session n cookies from 1 page to another.

```
<html>
<fieldset>
<legend>Login </legend>
<form action="loginprocess.php" method="POST"><br><br>
Username:<input type="text" required="" name="uname"><br><br>
Password:<input type="text" required="" name="upassword"><br><br>
<input type="checkbox" value="1" name="remember">keep me login:
<input type="submit" value="Login" name="sub">
<br>
<?php
if(isset($_REQUEST["err"]))
$msg="Invalid username or Password";
?>
<p style="color:red;">
<?php if(isset($msg))
{
echo $msg;
}
?>
</p></form></fieldset></center></html>
<?php
$cser=mysqli_connect("127.0.0.1","root","","project") or die("connection
failed:".mysqli_error());
if(isset($_REQUEST['sub']))
{
$a = $_REQUEST['uname'];
$b = $_REQUEST['upassword'];
$res = mysqli_query($cser,"select* from users where uname='$a'and upassword='$b'");
$result=mysqli_fetch_array($res);
if($result)
{
if(isset($_REQUEST["remember"]) && $_REQUEST["remember"]==1)
setcookie("login","1",time()+60);// second on page time
else
setcookie("login","1");
header("location:index.php");
}
else
{
header("location:login.php?err=1");
}
}
?>
<?php
setcookie("login","",time()-1);//for delete the cookie //destroy the cookie
```

```
header("location:index.php")
?>
<?php
if(!isset($_COOKIE["login"]))
header("location:login.php");
?>
<h1> Welcome to page 1 </h1>
<table>
<a href="page1.php"><h2><font color="">PAGE 1</font></h2>
<a href="page2.php"><h2><font color="">PAGE 2</font></h2>
<a href="page3.php"><h2><font color="">PAGE 3</font></h2>
<a href="logout.php"><h2><font color="red">Logout</font></h2>
```

OUTPUT:





Appendix: A – Screenshot of Project

Recruitment Management System

Page 1 : HOME PAGE

The first page of a Recruitment Management System sets the stage for an efficient and user-friendly experience for recruiters and hiring managers.
The first page of the Recruitment Management System welcomes users with a clean and intuitive interface.
The dashboard also include widgets or modules that allow users to navigate to specific sections of the system, such as job postings, candidate profiles, interview schedules, or reports. This layout enables recruiters to quickly grasp the status of ongoing recruitment processes and take immediate actions as needed.
It also allows user to find vacancy by searching in the search bar depending on the job required.

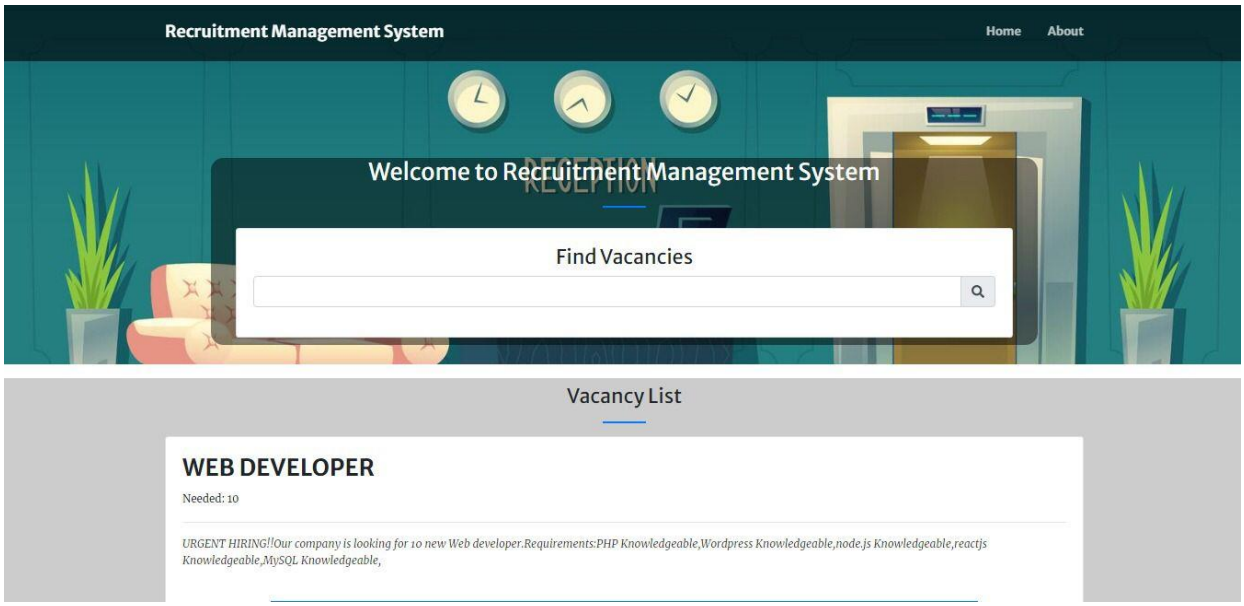


Figure 1- Home page

Page 2: LIST OF VACANCY

List of Vacancy page provides a comprehensive overview of available job openings within an organization.
The page serves as a centralized repository of job positions that are currently open for recruitment. It presents a structured and organized view of the available vacancies, allowing recruiters and hiring managers to easily navigate and manage the hiring process.
This information include the job title, department, location, posting date, application deadline, and the number of applicants received. Each vacancy entry is typically a clickable link or button that leads to the detailed job description and application process.
Depending on the system's functionality, recruiters have additional actions available on the List of Vacancy page. For example, they are able to create new job postings, edit existing vacancies, or close positions that have been filled. These actions empower recruiters to efficiently manage the recruitment process from a single interface.
List of Vacancy page in a Recruitment Management System provides recruiters and hiring managers with a clear and organized overview of available job openings. Its user-friendly interface, search and filtering options, and access to essential vacancy details contribute to a streamlined and efficient recruitment process.

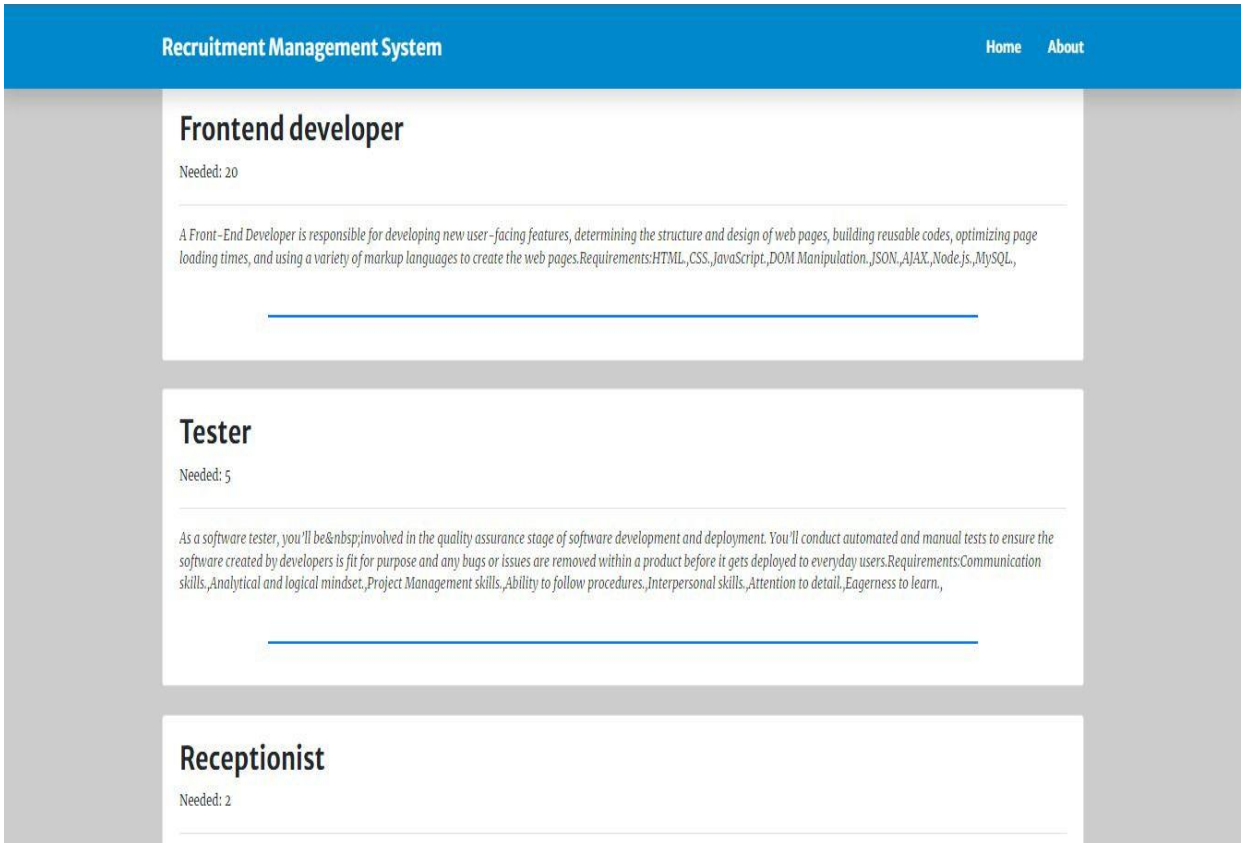


Figure 2- List of Vacancy

Page 3 : HIRING REQURIMENT

A Recruitment Management System is a comprehensive software solution designed to streamline and optimize the end-to-end recruitment process. It encompasses a range of functionalities and features to meet the requirements of efficient talent acquisition.
A key requirement of a Recruitment Management System is the ability to manage job postings effectively. This includes features for creating, editing, and publishing job advertisements across various platforms. Additionally, the system supports customization of job descriptions, including fields for job requirements, responsibilities, and desired qualifications.
Efficient candidate management is another critical requirement. The system enable recruiters to track and manage candidate applications, including features for resume parsing, screening, and shortlisting. Integration with email or other communication channels would facilitate seamless candidate correspondence and scheduling of interviews.
To streamline the interview process, the system offer scheduling capabilities, allowing recruiters to coordinate and manage interview dates, times, and locations. It should also provide collaboration features, enabling multiple stakeholders to provide feedback and evaluate candidates.

It also allows the admin to display the requirements such as, the knowledge they must have and minimum qualifications to apply for a job.

It also display the number of hiring needed currently.
Lastly is displays in-depth detail about the company.

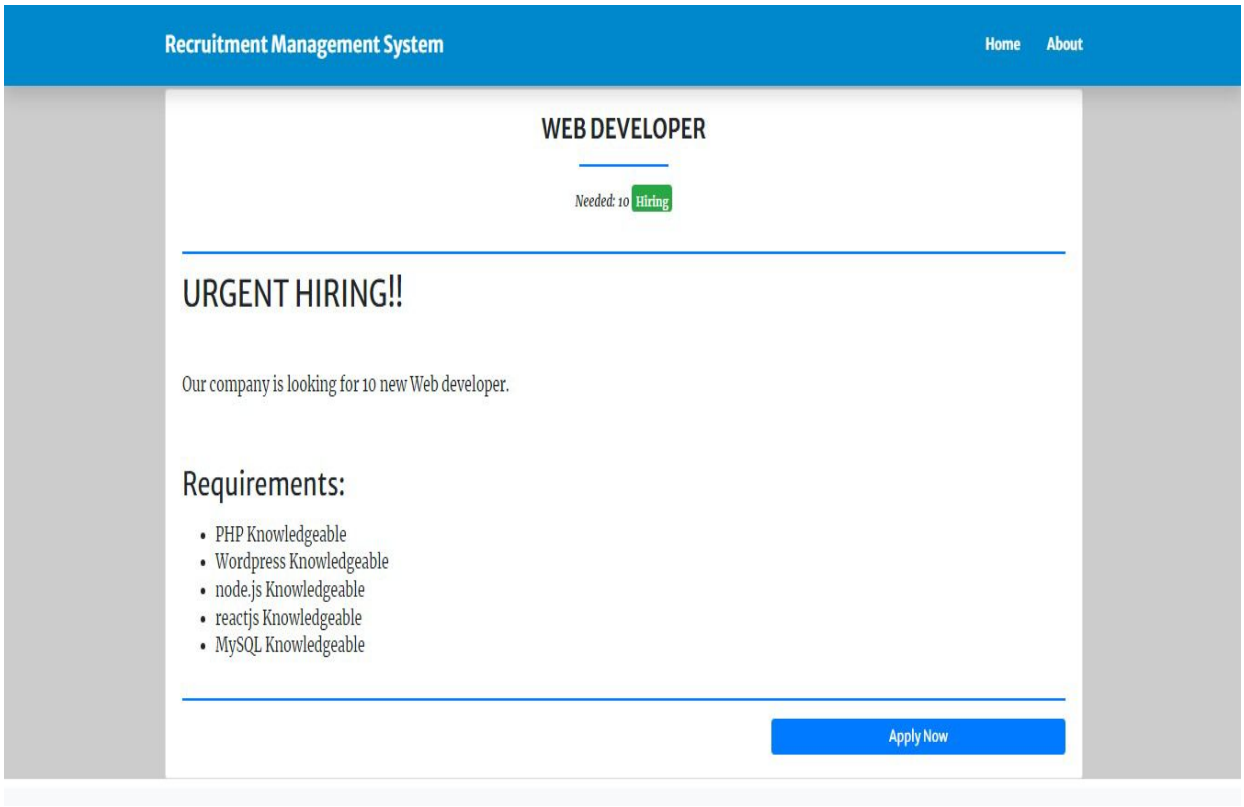


Figure 3- Hiring Requirements

Page 4 : APPLICATION FORM

The application form in a Recruitment Management System is a crucial component that gathers detailed information from job applicants. It serves as a comprehensive tool to collect essential details and qualifications required for a particular job position.

The application form in the Recruitment Management System is designed to capture extensive information from job applicants. It begins with the applicant's personal details, including their full name, contact information, address, and any relevant identification numbers. This ensures accurate and reliable identification of each applicant.

Moving forward, the application form requests applicants to provide their educational background. This section typically includes fields to input details such as academic qualifications, degrees earned, educational institutions attended, and any certifications or specialized training completed. This allows recruiters to assess the applicant's educational qualifications and suitability for the position.

In addition to the applicant's qualifications and experience, the form often incorporates a section to gather additional information, such as references or supporting documents. Applicants can provide contact details for professional references who can vouch for their abilities and character. They also have the option to upload relevant documents such as resumes, cover letters, portfolios, or certifications.

To ensure a smooth and user-friendly experience, the application form is typically designed with clear instructions, intuitive input fields, and validation mechanisms to prevent errors or incomplete submissions. This enhances the efficiency of the recruitment process by providing recruiters with well-organized and standardized applicant information.

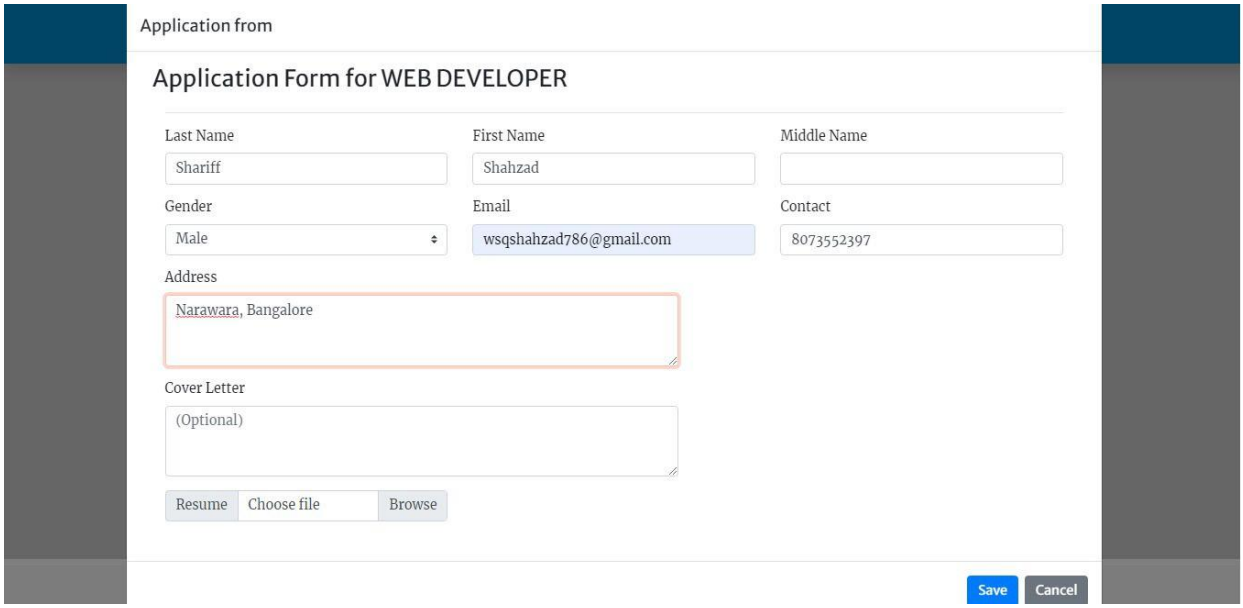


Figure 4-Application Form

After submitting the application form in a Recruitment Management System, the system initiates a series of processes to streamline the recruitment workflow. Once the application is received, it undergoes an initial screening and assessment phase. This phase involves automated checks for basic qualifications, such as minimum experience or education requirements, to filter out ineligible candidates.

Once the initial screening and assessment phase is completed, shortlisted candidates are typically invited for further evaluation, such as interviews or assessments. The Recruitment Management System assists in scheduling these activities, sending automated notifications to candidates and interviewers, and maintaining a centralized calendar for the hiring team to manage the interview process effectively.

Ultimately, the Recruitment Management System streamlines the entire recruitment workflow, from application submission to candidate selection. By automating processes, organizing candidate data, facilitating collaboration, and simplifying scheduling, the system enables recruiters and hiring teams to focus on evaluating candidates and making informed decisions, leading to more efficient and successful recruitment outcomes**.**

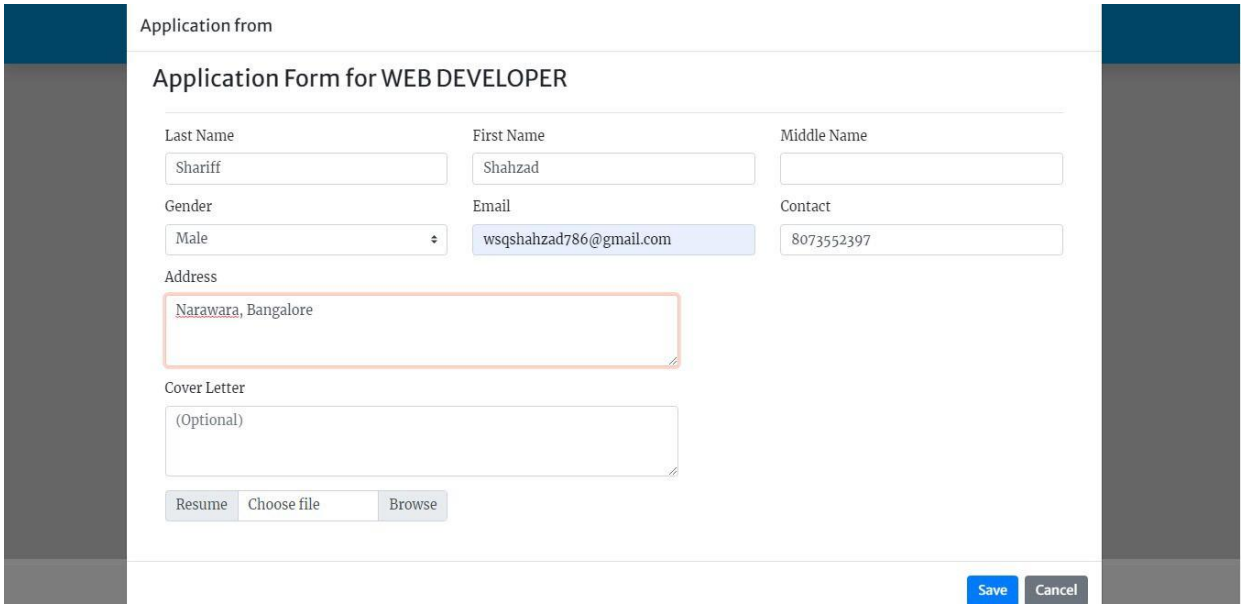


Figure 4(b)-Application Form

Page 5: CONTACT US

It provides a convenient and straightforward way for users to reach out with inquiries, feedback, or any other form of interaction.
The Contact us option on a website serves as a vital means of communication between the website visitors and the organization behind it.
This page includes phone number and email id of the website builder.
This allows users to provide specific details regarding their query or request.
By providing a Contact Us option, the website aims to foster effective communication, build trust with users, and ensure that their concerns or inquiries are promptly addressed by the organization's representatives.

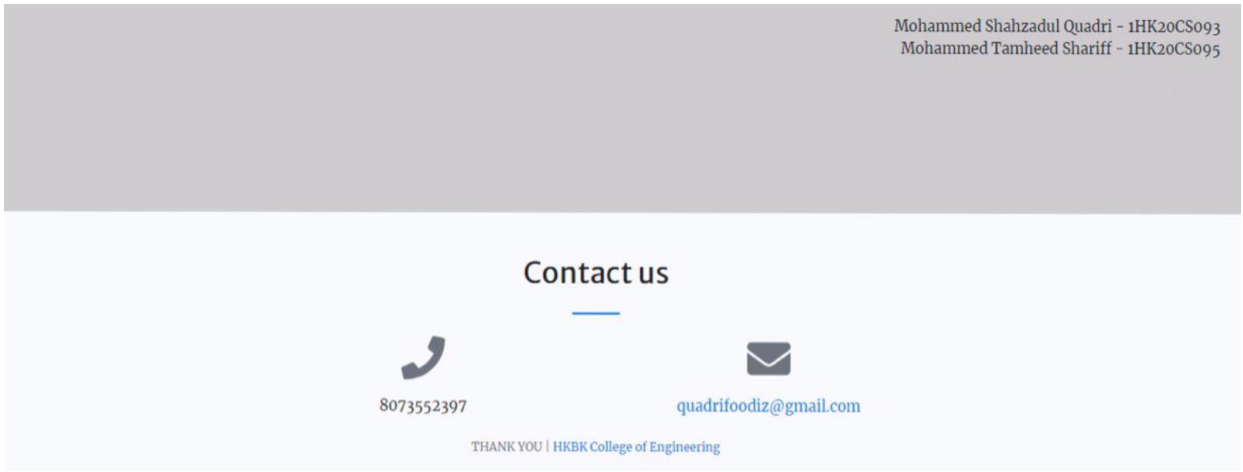


Figure 5- Contact Us

Future Enhancement

To continuously improve and enhance the experience, we are dedicated to implement further enhancements such as,

1. Advanced Analytics and Reporting:
   - Implement comprehensive analytics and reporting capabilities to track recruitment metrics, such as time-to-fill, cost-per-hire, applicant demographics, and source effectiveness.
   - Generate visual reports and dashboards to provide real-time insights into recruitment performance and trends, aiding data-driven decision-making.

2. AI-powered Candidate Screening:
   - Integrate artificial intelligence (AI) algorithms to automate initial candidate screening processes, analyzing resumes, and identifying relevant qualifications, skills, and experience.
   - Utilize natural language processing (NLP) to extract key information from resumes and assess candidate suitability based on predefined criteria.

3. Mobile-Friendly Application:

- Develop a mobile application version of the Recruitment Management System, allowing recruiters and hiring managers to access and manage the recruitment process conveniently from their smartphones or tablets.
- Ensure a responsive and user-friendly design for seamless navigation and interaction on mobile devices.

4. Applicant Tracking and Communication:
- Enhance the applicant tracking system to provide detailed tracking of candidates' progress throughout the recruitment process, from application submission to final selection or rejection.
- Enable automated email or SMS notifications to keep candidates informed about their application status, interview schedules, or other relevant updates.

5. Integration with Job Portals and Social Media:
- Enable seamless integration with popular job portals, allowing job postings to be automatically synced and managed from within the Recruitment Management System.
- Integrate with social media platforms to facilitate job sharing and attract a broader pool of candidates through social recruitment strategies.

6. Video Interviewing and Assessment:
- Incorporate video interviewing capabilities, enabling recruiters to conduct remote interviews and assessments with candidates from different locations.
- Integrate video interview recording and playback functionality within the system for reviewing and evaluating candidate responses.

7. Onboarding and Integration with HR Systems:
- Extend the Recruitment Management System to include onboarding features, facilitating a smooth transition for selected candidates into the organization.
- Integrate with existing HR systems, such as payroll and employee management systems, to streamline the onboarding process and ensure a seamless transfer of candidate data.

8. Customizable Workflows and Automation:
- Allow customization of recruitment workflows to align with the organization's specific hiring processes and requirements.
- Implement automation features, such as auto-screening, interview scheduling, or document generation, to streamline repetitive tasks and save time for recruiters.

By implementing these future enhancements, the Recruitment Management System can evolve into a comprehensive, efficient, and intelligent platform that streamlines the entire recruitment lifecycle, improves decision-making, and enhances the overall recruitment experience for both recruiters and candidates.

Conclusion:

In conclusion, the Recruitment Management System is a comprehensive and efficient solution that revolutionizes the recruitment process for organizations. With its array of features and functionalities, it simplifies and streamlines every aspect of the recruitment lifecycle, from job posting to candidate selection. By centralizing all recruitment activities within a single system, it eliminates the need for manual processes, reduces paperwork, and improves collaboration among recruiters, hiring managers, and stakeholders.

The Recruitment Management System offers robust reporting and analytics tools that provide valuable insights into recruitment metrics and trends. By analyzing data on time-to-fill, cost-per-hire, and source effectiveness, organizations can make data-driven decisions to optimize their recruitment strategies and processes.

Another notable aspect of the system is its focus on candidate experience. Through automated communication, timely notifications, and transparent application tracking, it ensures that candidates are well-informed throughout the recruitment journey. Additionally, the system can be enhanced with mobile compatibility, allowing candidates to easily apply for positions and track their application status on the go.

Data security and compliance are paramount considerations in the Recruitment Management System. The implementation of robust security measures, including encryption and access controls, safeguards sensitive candidate information and ensures compliance with data protection regulations.

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