

Web services practicals

Q1) Create 'Dynamic Web Project', which will host your web service functionality to greet the user according to server time and create 'Dynamic Web Project', which will host the client application that will send user name and test the web service.

Solution:

```
<?php
$dat = new DateTime('now', new DateTimeZone('Asia/Kolkata'));
$date=$dat->format('H');
if($date < 12)
    echo "Good morning to everyone";
else if($date < 17)
    echo "Good afternoon to everyone";
else if($date<20)
    echo "Good evening to everyone";
else
    echo "Good night to everyone";
?>
```

Q2) Create 'Dynamic Web Project', which will host your web service functionality to convert Celsius to Fahrenheit and create 'Dynamic Web Project', which will host the client application that will send Celsius and test the web service.

Solution:

```
<?php
$celsius = 17 ;
$fahrenheit = (($celsius*9)/5)+32 ;
echo("Temperature in Fahrenheit is: ");
echo($fahrenheit);
?>
```

Henry - 1

Q3) Create 'Dynamic Web Project', which will host your web service functionality to find the factorial of given number and create 'Dynamic Web Project', which will host the client application that will send positive integer number and test the web service.

Solution:

```
<html>
<head>
<title>Factorial Program using loop in PHP</title>
</head>
<body>
<form method="post">
    Enter the Number:<br>
    <input type="number" name="number" id="number">
    <input type="submit" name="submit" value="Submit" />
</form>
<?php
    if($_POST){
        $fact = 1;
        //getting value from input text box 'number'
        $number = $_POST['number'];
        echo "Factorial of $number:<br><br>";
        //start loop
        for ($i = 1; $i <= $number; $i++){
            $fact = $fact * $i;
        }
        echo $fact . "<br>";
    }
?>
```

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

Henry - 2

Create 'Dynamic Web Project', which will host your web service functionality to validate email id (use regular expression) and create 'Dynamic Web Project', which will host the client application that will send email id and test the web service.

```
<!DOCTYPE html>
<html>
<head>
    <title>Email Validation</title>
</head>
<body>
    <form method="post" action="">
        <label for="email">Email:</label>
        <input type="text" id="email" name="email">
        <br>
        <input type="submit" value="Validate">
    </form>
    <?php
        if ($_SERVER["REQUEST_METHOD"] == "POST") {
            $email = $_POST["email"];
            if (!preg_match("/^[a-zA-Z0-9._-]+@[a-zA-Z0-9-]+\.[a-zA-Z.]{2,5}$/",
$email)) {
                echo "Invalid email address";
            } else {
                echo "Valid email address";
            }
        }
    ?>
</body>
</html>
```

Q8) Create 'Dynamic Web Project', which will host your web service functionality to validate mobile no (use regular expression: should contain only 10 numeric no) and create 'Dynamic Web Project', which will host the client application that will send mobile no and test the web service.

Solution:

```
<html>
<head>

</head>

<body>

<form align="center" method="post">

<div id="box">
<h2><center>Validate mobile number</center></h2>
<table>
<tr>
<td>
    Enter mobile no:<input type="text" name="Mobile_no"><br>
</td>
</tr>

<tr>
<td><center><br>
<input type='submit' name='submit' value="Check valid mobile number"></center>
</td>
</tr>
</table>
</form>
<?php
if(isset($_POST['submit'])) {

    $mobilenos=$_POST["Mobile_no"];
    if (!preg_match("/^[0-9]*$/",$mobilenos) && strlen($mobilenos)===10) {
        $ErrMsg="Only numeric value is allowed.";
        echo $ErrMsg;
    }else {
        echo strlen($mobilenos);
        echo strlen($mobilenos)==10;
```

```

        echo $mobilenos;
    }

}

?>

</body>
</html>

```

Q9) Create 'Dynamic Web Project', which will host your web service functionality to convert Rupees to Dollar, Pound, Euro,..... and create 'Dynamic Web Project', which will host the client application that will send amount in Rupees & type of conversion and tests the web service.

Solution:

```

<html>
<head>
<style>
    #box
    {
        width:350px;
        height:270px;
        margin:0px auto;
        border:2px solid black;
    }
    h2{
        text-align: center;
    }
    table{
        margin:0px auto;
    }
</style>
</head>
<body>

<form align="center" method="post">

<div id="box">
<h2><center>Currency Converter</center></h2>
<table>
    <tr>

```

```

        <td>
            Enter Amount:<input type="text" name="amount"><br>
        </td>
    </tr>
    <tr>
    <td>
        <br><center>From:<select name='cur1'>
            <option value="INR">INR RUPEES</option>
        </select>
    </td>
    </tr>
    <tr>
    <td>
        <br><center>To:<select name='cur2'>
            <option value="USD" selected >United States(USD)</option>
            <option value="JPY">Japanese Yen(JPY)</option>
            <option value="PHP">Philippine Peso(PHP)</option>

        </select>
    </td>
    </tr>
    <tr>
    <td><center><br>
    <input type='submit' name='submit' value="CovertNow"></center>
    </td>
    </tr>
</table>
</form>
<?php
if(isset($_POST['submit'])) {

    $amount = $_POST['amount'];
    $curl = $_POST['cur1'];
    $cur2 = $_POST['cur2'];

    if($curl=="INR" AND $cur2=="JPY") {
        echo "<center><b>Your Converted Amount is:</b><br></center>";
        echo "<center>" . $amount*8.463 . "</center>";
    }
}

```

```

if($curl=="INR" AND $cur2=="USD"){
echo "<center><b>Your Converted Amount is:</b><br></center>";
echo "<center>" . $amount* 80 . "</center>";
}

if($curl=="INR" AND $cur2=="PHP"){
echo "<center><b>Your Converted Amount is:</b><br></center>";
echo "<center>" . $amount* 37.15 . "</center>";
}

}

?>

</body>
</html>

```

Q10) Create 'Dynamic Web Project', which will host your web service functionality to give the suggestion for given key word and create 'Dynamic Web Project', which will host the client application that tests the web service.

Solution:

```

<html>

    <head>
        <title>Suggestion for your keyword</title>
    </head>

    <body>
        <form method="post" action="suggestion.php" style="margin:
auto; text-align: center; margin-top: 100px; font-size:
larger; font-family: 'Lucida Sans'">

            Enter keyword: <input type="text" name="key_word"></br></br>

            <input type="submit" value="Get suggestion">
        </form>
    </body>

</html>

```

```

<html>

    <head>
        <title>Suggestion for your keyword</title>
    </head>

    <body style="margin:
auto; text-align: center; margin-top: 100px; font-size:
larger; font-family: 'Lucida Sans', 'Lucida Sans Regular',
'Lucida Grande', 'Lucida Sans Unicode', Geneva, Verdana,
sans-serif;">
        <?php

            $keywords = array(
                "apple" => array("fruit", "tech company", "juice"), "car"
                => array("vehicle", "automobile", "transportation"),
                "book" => array("novel", "textbook", "e-book")
            );

            $keyword = $_POST['key_word'];

            if (isset($keywords[$keyword])) {
                $suggestions = $keywords[$keyword];
                echo "Suggestions for '$keyword':<br>";
                foreach ($suggestions as $suggestion) {
                    echo "- $keyword $suggestion<br>";
                }
            } else {
                echo "Keyword '$keyword' not found.";
            }

        ?>

    </body>

</html>

```

Q11) Create 'Dynamic Web Project', which will host your web service functionality to find area and volume of the circle and create 'Dynamic Web Project', which will host the client application that tests the web service.

Solution:

```
<html>

    <head>
        <title>Area and Volume of a circle.</title>
    </head>

    <body>
        <form method="post" action="area.php" style="margin:
auto; text-align: center; margin-top: 100px; font-size:
larger; font-family: 'Lucida Sans'">

            radius: <input type="text" name="radius"></br></br>

            <input type="submit" value="find area and volume">
        </form>
    </body>

</html>

<html>

    <head>
        <title>Area and Volume of a circle.</title>
    </head>

    <body style="margin:
auto; text-align: center; margin-top: 100px; font-size:
larger; font-family: 'Lucida Sans', 'Lucida Sans Regular',
'Lucida Grande', 'Lucida Sans Unicode', Geneva, Verdana,
sans-serif;">
        <?php
            $radius = $_POST['radius'];
            $area = 3.14 * pow($radius, 2);
            $volume = round((4/3) * 3.14 * pow($radius, 3),2);
            echo("area of circle: $area" . "<br>". "volume of circle: $volume");
        ?>
    </body>
</html>
```

Q12) Create 'Dynamic Web Project', which will host your web service functionality to find number of vowels in the given string and create 'Dynamic Web Project', which will host the client application that tests the web service.

Solution:

```
<html>

    <head>
        <title>Vowel count in a string</title>
    </head>

    <body>
        <form method="post" action="vowel_count_service.php" style="margin:
auto; text-align: center; margin-top: 100px; font-size:
larger; font-family: 'Lucida Sans'">

            Enter string here: <input type="text" name="string"></br></br>

            <input type="submit" value="Find numbers of vowels in given string">
        </form>
    </body>

</html>

<html>

    <head>
        <title>Vowel count in a string.</title>
    </head>

    <body style="margin:
auto; text-align: center; margin-top: 100px; font-size:
larger; font-family: 'Lucida Sans', 'Lucida Sans Regular',
'Lucida Grande', 'Lucida Sans Unicode', Geneva, Verdana,
sans-serif;">
        <?php
        function countVowels($string) {
            preg_match_all('/[aeiouAEIOU]/', $string, $matches);
            return count($matches[0]);
        }
        $string = $_POST['string'];
```

```

        $count = countVowels($string);
        echo "Total number of vowels in a string ( $string ) is $count.";
    ?>
</body>

</html>

```

Q13) Create 'Dynamic Web Project', which will host your web service functionality to convert decimal number to Binary, Octal, Hexa Decimal and create 'Dynamic Web Project', which will host the client application that will send decimal number & type of conversion and test the web service.

Solution:

```

<html>

    <head>
        <title>Decimal Conversion</title>
    </head>

    <body>
        <form method="post" action="decimal_conversion.php" style="margin:
auto; text-align: center; margin-top: 100px; font-size:
larger; font-family: 'Lucida Sans'">

            Enter decimal here: <input type="text" name="decimal"></br></br>

            <input type="radio" value="binary" name="convert_type">Binary</br></br>
            <input type="radio" value="octal" name="convert_type">Octal</br></br> <input
            type="radio" value="hexa_decimal" name="convert_type">Hexa Decimal</br></br>

            <input type="submit" value="Convert">
        </form>
    </body>

</html>

<html>

    <head>
        <title>Decimal Conversion</title>
    </head>

```

```

<body style="margin:
auto; text-align: center; margin-top: 100px; font-size:
larger; font-family: 'Lucida Sans', 'Lucida Sans Regular',
'Lucida Grande', 'Lucida Sans Unicode', Geneva, Verdana,
sans-serif;">
    <?php
        function convertNumber($number, $type) {
switch ($type) {
    case "binary":
        return decbin($number);
    case "octal":
        return decoct($number);
    case "hexa_decimal":
        return dechex($number);
    default:
        return "Invalid conversion type";
}
}

    $number = $_POST['decimal'];
    $type = "";
    if(isset($_POST['convert_type'])){
        $type = $_POST['convert_type'];
    }

    $converted_number = convertNumber($number, $type);
    echo "Decimal number: $number". "<br><br>". "$type: $converted_number";
?>
</body>

</html>

```

Q15) Create 'Dynamic Web Project', which will host your web service functionality for returning book price and create 'Dynamic Web Project', which will host the client application that will send Book Name

Solution:

```

<html>

    <head>
        <title>Book price service</title>

```

```

</head>
<body>
    <form method="post" action="book_price_service.php" style="margin:
auto; text-align: center; margin-top: 100px; font-size:
larger; font-family: 'Lucida Sans'">

        Enter book name: <input type="text" name="book_name"></br></br>

        <input type="submit" value="Get price">
    </form>
</body>

</html>

<html>

    <head>
        <title>Book price service</title>
    </head>

    <body style="margin:
auto; text-align: center; margin-top: 100px; font-size:
larger; font-family: 'Lucida Sans', 'Lucida Sans Regular',
'Lucida Grande', 'Lucida Sans Unicode', Geneva, Verdana,
sans-serif;">

        <?php
        function getBookPrice($name) {
            $prices = array(
                "The Great Gatsby" => 19.99,
                "To Kill a Mockingbird" => 14.99,
                "Pride and Prejudice" => 12.99,
                "The Catcher in the Rye" => 9.99
            );
            return isset($prices[$name]) ? $prices[$name] : "Book not found";
        }

        $book_name = $_POST['book_name'];
        $book_price = getBookPrice($book_name);
        echo "Book name: $book_name".<br><br>". "Book price: $book_price";
    ?>

</body>

```

