

Practical 1 :-

```
(a) <!DOCTYPE html>
<html>
<head>
    <title>Prime Number Checker</title>
</head>
<body>
    <h1>Prime Number Checker</h1>

    <form method="post" action="">
        <label for="number">Enter a number:</label>
        <input type="number" id="number" name="number">
        <br>
        <input type="submit" value="Check">
    </form>

    <?php
    if ($_SERVER["REQUEST_METHOD"] == "POST") {
        $number = $_POST["number"];

        function isPrime($number)
        {
            // 1 is not a prime number
            if ($number <= 1) {
                return false;
            }

            // Check for divisibility from 2 to sqrt(number)
            for ($i = 2; $i * $i <= $number; $i++) {
                if ($number % $i === 0) {
                    return false;
                }
            }

            return true;
        }

        if (isPrime($number)) {
            echo "<p>{$number} is a prime number.</p>";
        } else {
            echo "<p>{$number} is not a prime number.</p>";
        }
    }
    ?>

</body>
</html>
```

(b) <?php

```
function isOdd($number)
{
    return $number % 2 !== 0;
}

function isEven($number)
{
    return $number % 2 === 0;
}

function performOperations($number)
{
    $digits = str_split($number); // Split the number into individual digits

    $sum = 0;
    $product = 1;

    foreach ($digits as $digit) {
        $sum += $digit;
        $product *= $digit;
    }

    $additionResult = isEven($sum) ? 'even' : 'odd';
    $multiplicationResult = isEven($product) ? 'even' : 'odd';

    return [
        'sum' => $sum,
        'product' => $product,
        'additionResult' => $additionResult,
        'multiplicationResult' => $multiplicationResult
    ];
}

if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $number = $_POST["number"];

    $result = performOperations($number);
}

?>

<!DOCTYPE html>
<html>
<head>
    <title>Digit Operations</title>
</head>
<body>
    <h1>Digit Operations</h1>
```

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<form method="post" action="">
    <label for="number">Enter a 4-digit number:</label>
    <input type="number" id="number" name="number" minlength="4" maxlength="4">
    <br>
    <input type="submit" value="Perform Operations">
</form>

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<?php if (isset($result)) : ?>
    <h2>Results:</h2>
    <p>Number: <?php echo $number; ?></p>
    <p>Sum of digits: <?php echo $result['sum']; ?></p>
    <p>Product of digits: <?php echo $result['product']; ?></p>
    <p>Sum is <?php echo $result['additionResult']; ?></p>
    <p>Product is <?php echo $result['multiplicationResult']; ?></p>
<?php endif; ?>

```

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</body>
</html>

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(c) <!DOCTYPE html>

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<html>
    <head>
        <title>Duplicate Character Finder</title>
    </head>
    <body>
        <h2>Enter a string:</h2>
        <form method="post">
            <input type="text" name="inputString">
            <input type="submit" value="Find Duplicates">
        </form>

        <?php
        if ($_SERVER['REQUEST_METHOD'] === 'POST') {
            $inputString = $_POST['inputString'];

            function findDuplicateCharacters($string) {
                $characters = str_split($string);
                $characterCount = array();

                // Count the occurrences of each character
                foreach ($characters as $character) {
                    if (isset($characterCount[$character])) {
                        $characterCount[$character]++;
                    } else {
                        $characterCount[$character] = 1;
                    }
                }
            }
        }
    }

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        // Print the characters with count greater than 1
        foreach ($characterCount as $character => $count) {
            if ($count > 1) {
                echo $character . " : " . $count . "<br>";
            }
        }
    }

    // Call the function with user input
    findDuplicateCharacters($inputString);
}
?>
</body>
</html>

```

Practical 2:-

```

<!DOCTYPE html> \
<html>
<head>
    <title>Form Validation</title>
</head>
<body>
    <h1>Form Validation</h1>

    <form method="post" action="">
        <label for="url">URL:</label>
        <input type="text" id="url" name="url">
        <br>

        <label for="email">E-Mail:</label>
        <input type="email" id="email" name="email">
        <br>

        <label for="votingCard">Voting Card Number:</label>
        <input type="text" id="votingCard" name="votingCard">
        <br>

        <label for="bankAccount">Bank Account Number:</label>
        <input type="text" id="bankAccount" name="bankAccount">
        <br>

        <label for="gstNumber">GST Number:</label>
        <input type="text" id="gstNumber" name="gstNumber">
        <br>

        <label for="panCard">PAN Card Number:</label>
        <input type="text" id="panCard" name="panCard">
        <br>
    </form>

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```
<label for="ayushmanCard">Ayushman Card Number:</label>
<input type="text" id="ayushmanCard" name="ayushmanCard">
<br>
```

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<label for="ifscCode">IFSC Code:</label>
<input type="text" id="ifscCode" name="ifscCode">
<br>
```

```
<input type="submit" value="Submit">
</form>
```

```
<?php
if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $url = $_POST["url"];
    $email = $_POST["email"];
    $votingCard = $_POST["votingCard"];
    $bankAccount = $_POST["bankAccount"];
    $gstNumber = $_POST["gstNumber"];
    $panCard = $_POST["panCard"];
    $ayushmanCard = $_POST["ayushmanCard"];
    $ifscCode = $_POST["ifscCode"];

    // Regular expressions
    $urlPattern =
"/^(https?:\\/\\/)?[a-zA-Z0-9-]+(\\.[a-zA-Z0-9-]+)*(\\.[a-zA-Z]{2,})(\\/[^\s]*)?$/" ;
    $emailPattern = "/^[a-zA-Z0-9._%+-]+@[a-zA-Z0-9.-]+\\.[a-zA-Z]{2,}$/" ;
    $votingCardPattern = "/^[A-Za-z0-9]{10}$/" ;
    $bankAccountPattern = "/^[A-Za-z0-9]+$/";
    $gstNumberPattern = "/^[A-Za-z0-9]{15}$/" ;
    $panCardPattern = "/^[A-Za-z]{5}[0-9]{4}[A-Za-z]{1}$/" ;
    $ayushmanCardPattern = "/^[0-9]{14}$/" ;
    $ifscCodePattern = "/^[A-Za-z]{4}[0-9]{7}$/" ;

    // Perform validations
    $urlIsValid = preg_match($urlPattern, $url);
    $emailIsValid = preg_match($emailPattern, $email);
    $votingCardIsValid = preg_match($votingCardPattern, $votingCard);
    $bankAccountIsValid = preg_match($bankAccountPattern, $bankAccount);
    $gstNumberIsValid = preg_match($gstNumberPattern, $gstNumber);
    $panCardIsValid = preg_match($panCardPattern, $panCard);
    $ayushmanCardIsValid = preg_match($ayushmanCardPattern, $ayushmanCard);
    $ifscCodeIsValid = preg_match($ifscCodePattern, $ifscCode);

    // Display validation results
    echo "<h2>Validation Results:</h2>";
    echo "URL: " . ($urlIsValid ? "Valid" : "Invalid") . "<br>";
    echo "E-Mail: " . ($emailIsValid ? "Valid" : "Invalid") . "<br>";
    echo "Voting Card Number: " . ($votingCardIsValid ? "Valid" : "Invalid") .
"<br>";
```

```

        echo "Bank Account Number: " . ($bankAccountIsValid ? "Valid" : "Invalid")
. "<br>";
        echo "GST Number: " . ($gstNumberIsValid ? "Valid" : "Invalid") . "<br>";
        echo "PAN Card Number: " . ($panCardIsValid ? "Valid" : "Invalid") .
"<br>";
        echo "Ayushman Card Number: " . ($ayushmanCardIsValid ? "Valid" :
"Invalid") . "<br>";
        echo "IFSC Code: " . ($ifscCodeIsValid ? "Valid" : "Invalid") . "<br>";
    }
    ?>

</body>
</html>

```

Practical 3:-

```

<?php
$date = "";
$result = "";

if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $date = $_POST["date"];
    $pattern = "/^\d{4}-\d{2}-\d{2}$/";

    if (preg_match($pattern, $date)) {
        $dayOfWeek = date('l', strtotime($date));
        $result = "Day of the week: " . $dayOfWeek;
    } else {
        $result = "Invalid date format";
    }
}
?>

<!DOCTYPE html>
<html>
<head>
    <title>Day of the Week Extractor</title>
</head>
<body>
    <h1>Day of the Week Extractor</h1>

    <form method="post" action="">
        <label for="date">Enter a date (YYYY-MM-DD):</label>
        <input type="text" id="date" name="date" value="<?php echo $date; ?>">
        <br>
        <input type="submit" value="Extract Day of the Week">
    </form>

    <?php if (!empty($result)) : ?>

```

```
    <h2>Result:</h2>
    <p><?php echo $result; ?></p>
<?php endif; ?>
```

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