

**K. J. Somaiya College of Engineering, Mumbai-77**  
(A Constituent College of Somaiya Vidyavihar University)

**Batch: A3**

**Roll No.: 16010121045**

**Experiment No. 06**

**TITLE: Develop and Demonstrate the use of Form Handling and Validation in PHP**

**AIM:** To develop web forms using PHP form and Validation.

**Expected Outcome of Experiment:** Integrate server side pages using php.

**Books/ Journals/ Websites referred:**

1. .

**Problem Statement: Description of the application implemented with output:**

To design and implement a blog site that allows multiple users to create and manage their own blogs, while also providing functionality for users to view, search, and comment on other blogs. The site will support CRUD operations for each entity, along with the support for querying of blogs by title or content, and all blogs and comments associated with a specific user and all comments associated with a specific blog.

Register.html

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

<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width,
initial-scale=1.0">
  <title>Daily Blogs</title>
  <!-- Stylesheet -->
  <link rel="stylesheet" href="../styles/index.css">
  <!-- Font Awesome -->
  <link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/font-
awesome/6.2.1/css/all.min.css" integrity="sha512-
```

**K. J. Somaiya College of Engineering, Mumbai-77**

(A Constituent College of Somaiya Vidyavihar University)

```
MV7K8+y+gLIBoVD59lQIYicR65iaqukvzf/nwasF0nqhPay5w/9lJmVM2hMD
cnK10nMGcdVK+iQrJ7lzPJQd1w==" crossorigin="anonymous"
referrerpolicy="no-referrer" />
</head>

<body>
  <div>
    <div class="heading">
      <h1>Register</h1>
    </div>
    
    <div class="form">
      <div class="greeting">
        <h2>Welcome</h2>
        <p>Let's Register you in quickly</p>
      </div>
      <form method="POST" action="success.php">
        <div class="input-field">
          <i class="fa-solid fa-user"></i>
          <label for="name"
class="form__label">Name</label>
          <input type="text" name="name"
placeholder="Enter Your Name" required>
        </div>
        <div class="input-field">
          <i class="fa-regular fa-envelope fa-
lg"></i>
          <label for="email"
class="form__label">Email</label>
          <input type="email" name="email"
placeholder="Enter Your Email" required>
        </div>
        <div class="input-field">
          <i class="fa-solid fa-lock fa-lg"></i>
          <label for="password"
class="form__label">Password</label>
          <input type="password" name="password"
placeholder="Enter your password" required>
        </div>
      </form>
    </div>
  </div>
</body>
```

**K. J. Somaiya College of Engineering, Mumbai-77**  
(A Constituent College of Somaiya Vidyavihar University)

```
<div class="input-field">
    <i class="fa-solid fa-lock fa-lg"></i>
    <label for="password"
class="form__label">Confirm Password</label>
    <input type="password"
name="confirmpassword" placeholder="Confirm your password"
required>
</div>
<button id="register"
class="btn">Register</button>
<div class="option">
    Already have an account?
    <br>
    Login
    <a href="index.php">here</a>
</div>
</form>
</div>
</div>
<script src="../scripts/Validation.js"></script>

</body>
</html>
```

Validation.js

```
document.getElementById('register').addEventListener('click'
, validation);

function checkEmail(email) {
    var re = /^\\w+([\\.-]?\\w+)*@\\w+([\\.-]?\\w+)*\\.\\w{2,3}+$/;
    if (re.test(email)) return true;
    else {
        alert('Please enter a valid email!');
        return false;
    }
}

function checkPassword(password) {
```

**K. J. Somaiya College of Engineering, Mumbai-77**

(A Constituent College of Somaiya Vidyavihar University)

```
var re = /^(?=.*\d)(?=.*[a-z])(?=.*[A-Z])[0-9a-zA-Z]{8,}$/;
if (re.test(password)) return true;
else {
    alert('Please enter a strong password!');
    return false;
}

function checkPasswordMatch() {
    var password =
document.getElementById('password')[0].value;
    var confirmPassword =
document.getElementById('confirmpassword')[0].value;
    if (password !== confirmPassword) {
        alert('Passwords do not match.');
```

**K. J. Somaiya College of Engineering, Mumbai-77**  
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## PHP Basic Concepts Learned With Syntax

Authentication.php

```
<?php
//connect to database
include('../scripts/connection.php');

//start the session
session_start();

//get data from form
$email = $_POST["email"];
$password = $_POST["password"];

//to prevent from mysql injection
$email = stripslashes($email);
$password = stripslashes($password);
$email = mysqli_real_escape_string($con, $email);
$password = mysqli_real_escape_string($con, $password);

//queries to get the password and the userid
$query = "SELECT password FROM users WHERE email='$email'";
$query2 = "SELECT userid FROM users WHERE email='$email'";
$result = $conn->query($query);
$result2 = $conn->query($query2);

//check if the email exists
if ($result->num_rows > 0) {
    //get the password and the userid from the result
    $row = $result->fetch_assoc();
    $row2 = $result2->fetch_assoc();
    $user_id = $row2["userid"];
    $hashed_password = $row["password"];

    //verify the password
    if (password_verify($password, $hashed_password)) {
        //set the session variable
        $_SESSION['user_id'] = $user_id;
        //navigate to home page
        header("Location: ../pages/home.php");
    }
}
```

**K. J. Somaiya College of Engineering, Mumbai-77**

(A Constituent College of Somaiya Vidyavihar University)

```
        exit();
    } else {
        //stay on the index page
        header("Location: ../pages/index.php");
    }
} else {
    //stay on the index page
    header("Location: ../pages/index.php");
}
?>
<!DOCTYPE html>
<html lang="en">

<body>
    //NO NEED FOR HTML HERE
</body>
</html>
```

**Database Connection:** The script connects to a MySQL database using `mysqli_connect()` function in the `connection.php` file.

**Sessions:** The `session_start()` function is used to start a new or resume an existing session.

**Form Data Handling:** The code retrieves the email and password entered in the login form using the `$_POST` superglobal array.

**SQL Query Execution:** The code executes SQL queries to retrieve the hashed password and user id from the database based on the email entered in the login form.

**Password Verification:** The code uses the `password_verify()` function to compare the password entered in the login form with the hashed password retrieved from the database.

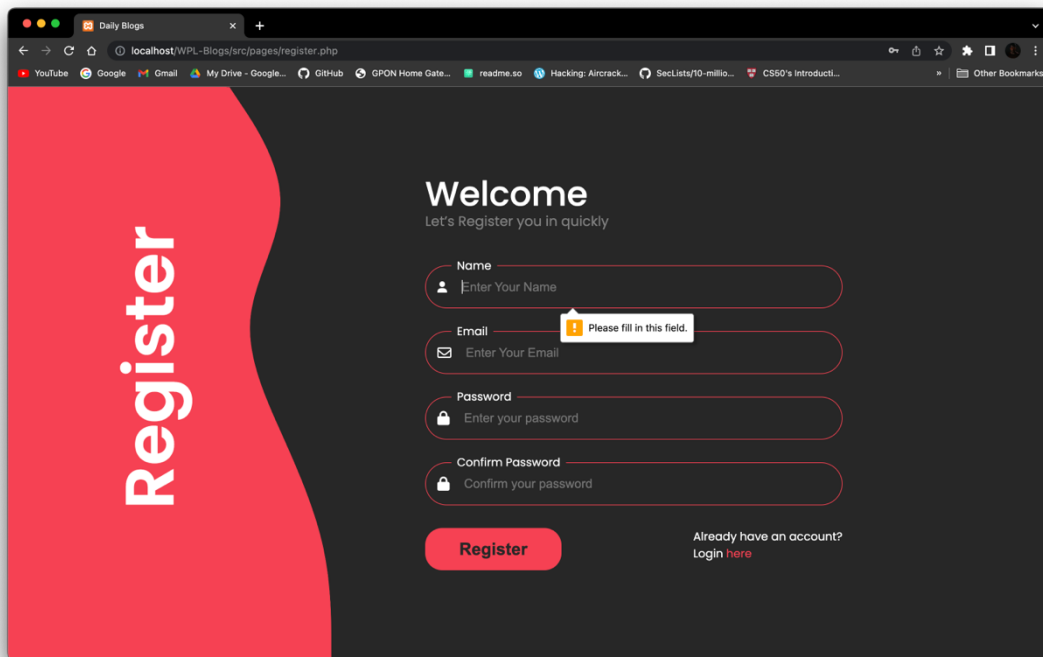
**HTTP Headers:** The code uses the `header()` function to navigate to the home page if the login is successful, or stay on the index page if the login fails.

**Super Global Arrays:** The code uses the `$_SESSION` and `$_POST` superglobal arrays to store the user ID and retrieve the form data respectively.

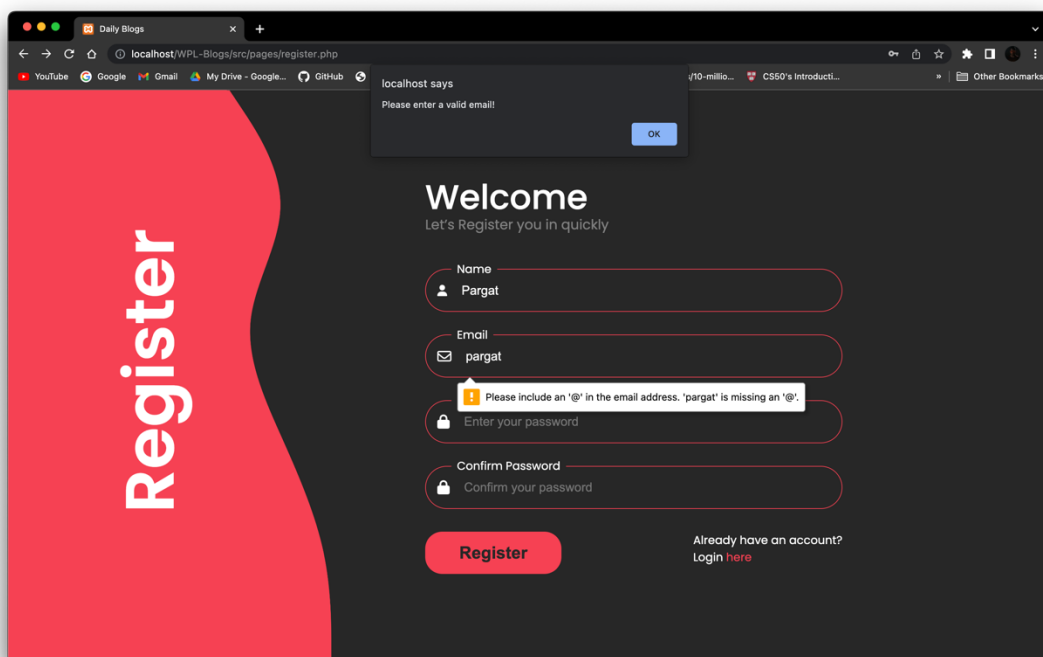
**Escaping Strings:** The code uses the `mysqli_real_escape_string()` function to escape special characters in the email and password entered in the login form, in order to prevent SQL injection attacks.

**K. J. Somaiya College of Engineering, Mumbai-77**  
(A Constituent College of Somaiya Vidyavihar University)

**Description of the application implemented with output:**

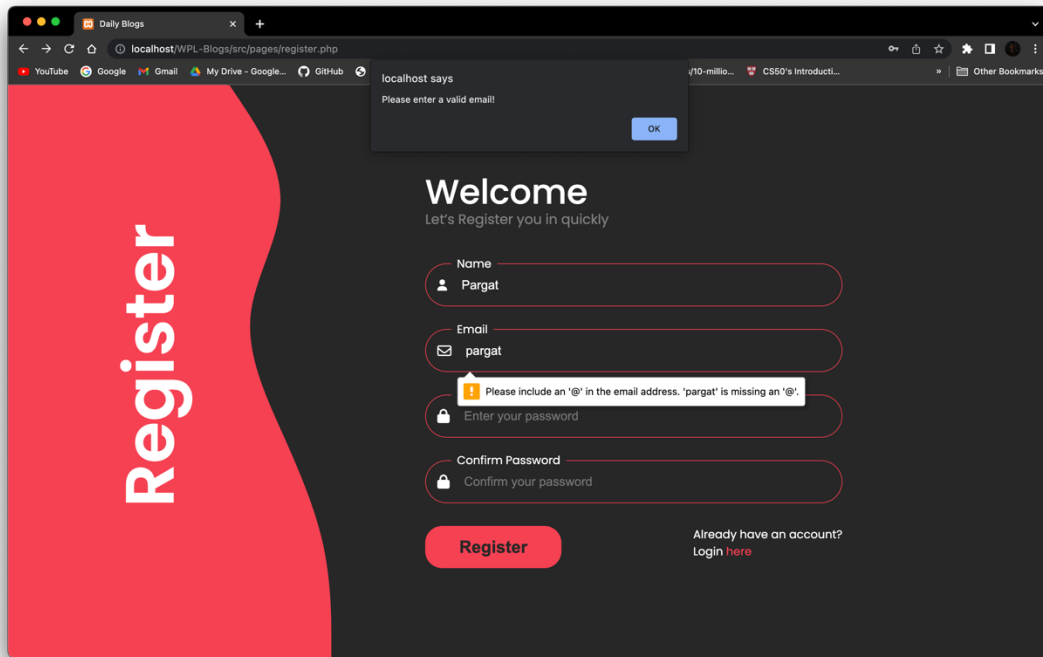


The screenshot shows a web browser window with the URL `localhost/WPL-Blogs/src/pages/register.php`. The page has a dark background with a large red wavy shape on the left containing the word "Register" in white. On the right, there is a "Welcome" section with the text "Let's Register you in quickly". Below this, there are four input fields: "Name" (with a person icon), "Email" (with an envelope icon), "Password" (with a lock icon), and "Confirm Password" (with a lock icon). Each field has a placeholder text: "Enter Your Name", "Enter Your Email", "Enter your password", and "Confirm your password". A red "Register" button is at the bottom left. At the bottom right, there is a link "Already have an account? Login [here](#)". A small error message "Please fill in this field." is visible next to the Email field.

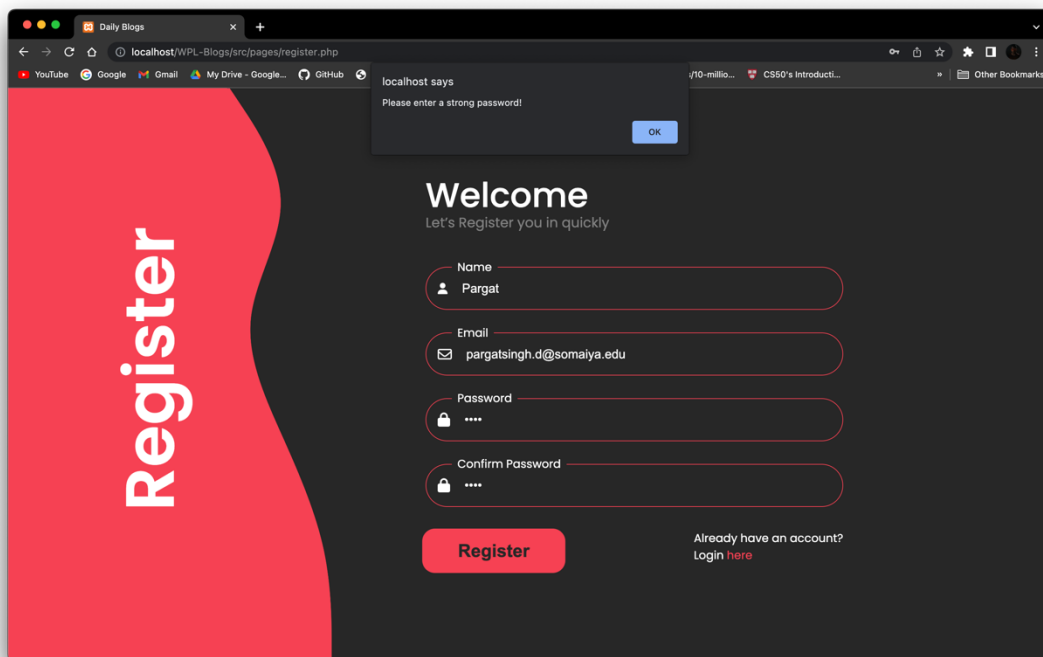


The screenshot shows the same web browser window as the previous one, but with a modal dialog box open. The dialog box has the title "localhost says" and the message "Please enter a valid email". There is an "OK" button. The registration form is still visible in the background, but the "Email" field now contains the text "pargat" and has a red border. A new error message "Please include an '@' in the email address. 'pargat' is missing an '@'." is visible next to the Email field. The "Name" field now contains the text "Pargat". The "Password" and "Confirm Password" fields are empty. The "Register" button is still at the bottom left. The link "Already have an account? Login [here](#)" is still at the bottom right.

**K. J. Somaiya College of Engineering, Mumbai-77**  
(A Constituent College of Somaiya Vidyavihar University)



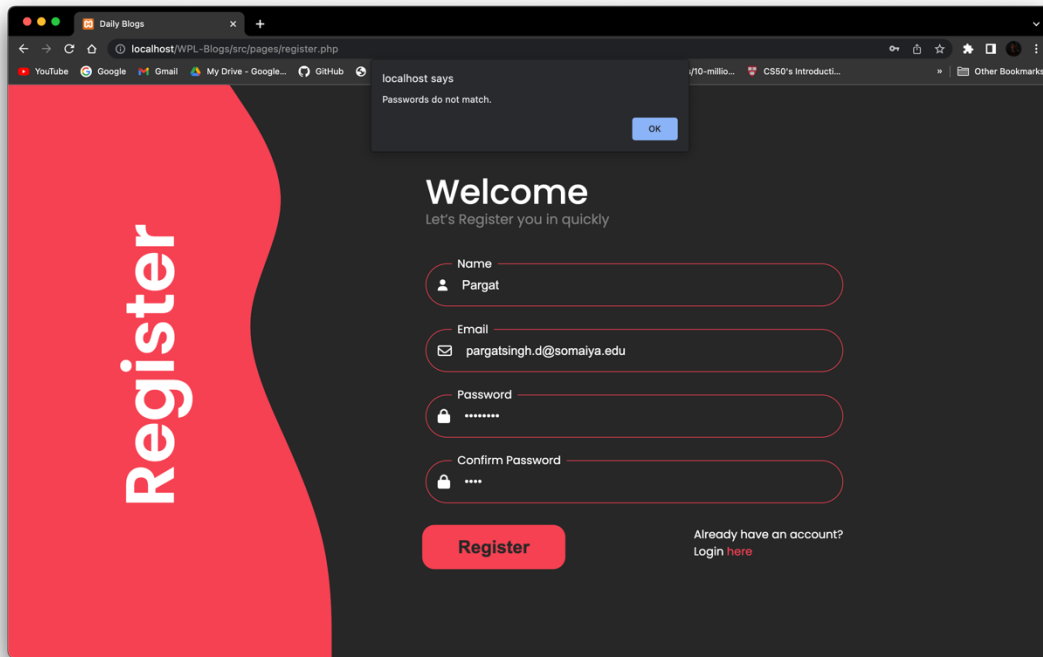
The screenshot shows a web browser window with the URL `localhost/WPL-Blogs/src/pages/register.php`. The page has a dark theme with a large red wavy shape on the left containing the word "Register" in white. A modal dialog box is open, displaying the message "Please enter a valid email!" with an "OK" button. The registration form fields are: Name (Pargat), Email (pargat), Password (Enter your password), and Confirm Password (Confirm your password). A red error message is shown below the email field: "Please include an '@' in the email address. 'pargat' is missing an '@'". At the bottom, there is a red "Register" button and a link "Already have an account? Login [here](#)".



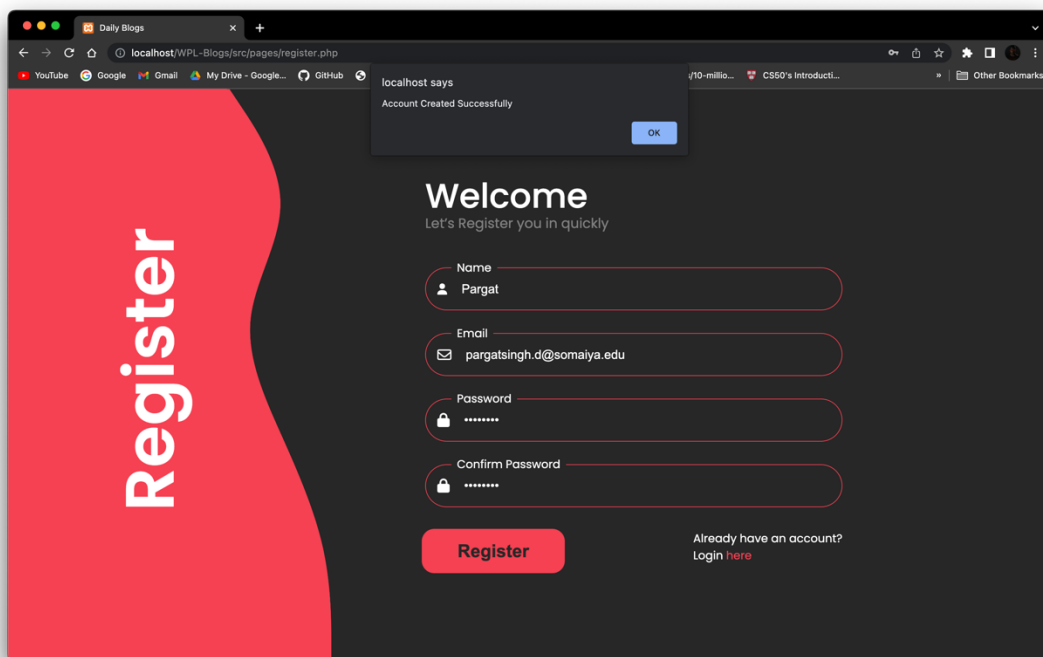
The screenshot shows the same web browser window, but the modal dialog box now displays the message "Please enter a strong password!". The registration form fields are: Name (Pargat), Email (pargatsingh.d@somaiya.edu), Password (\*\*\*\*), and Confirm Password (\*\*\*\*). The "Register" button and the "Already have an account? Login [here](#)" link are still visible at the bottom.



**K. J. Somaiya College of Engineering, Mumbai-77**  
(A Constituent College of Somaiya Vidyavihar University)



The screenshot shows a web browser window with the address bar displaying 'localhost/WPL-Blogs/src/pages/register.php'. A red banner on the left side of the page contains the word 'Register' in white. The main content area has a dark background with the text 'Welcome' and 'Let's Register you in quickly'. Below this, there are four input fields: 'Name' (containing 'Pargat'), 'Email' (containing 'pargatsingh.d@somaiya.edu'), 'Password' (containing '\*\*\*\*\*'), and 'Confirm Password' (containing '\*\*\*\*'). A red 'Register' button is at the bottom left, and a link 'Login here' is at the bottom right. A modal dialog box is open in the center, displaying the message 'Passwords do not match.' with an 'OK' button.



The screenshot shows the same web browser window as above, but the modal dialog box now displays the message 'Account Created Successfully' with an 'OK' button. The registration form fields and the 'Register' button remain visible.

In this experiment we implement php form validation in our sign up form and apply it in our problem statement website.

## **K. J. Somaiya College of Engineering, Mumbai-77**

(A Constituent College of Somaiya Vidyavihar University)

### **Post Lab Objective with Ans :**

#### **What is PHP Form?**

A PHP form is an HTML form that is processed by PHP on the server-side. It allows users to input data or make selections and then send that data to a server for processing or storage. PHP forms can be used for a wide variety of purposes, such as logging in to a website, registering for a service, submitting feedback, or making a purchase.

When a user submits a PHP form, the data is typically sent to a PHP script on the server, which can then process the data, validate it, and store it in a database or perform other operations based on the form data.

#### **What is PHP Form Validation?**

A form contains various input fields such as text box, checkbox, radio buttons, submit button, and checklist, etc. These input fields need to be validated, which ensures that the user has entered information in all the required fields and also validates that the information provided by the user is valid and correct.

There is no guarantee that the information provided by the user is always correct. PHP validates the data at the server-side, which is submitted by HTML form. You need to validate a few things:

- Empty String
- Validate String
- Validate Numbers
- Validate Email
- Validate URL
- Input length

#### **List different inbuilt functions used in PHP form and validation**

In PHP, there are various inbuilt functions available for handling form data and validating user inputs. Some of the commonly used functions are:

`$_GET` - used to retrieve form data sent using the GET method

`$_POST` - used to retrieve form data sent using the POST method

`htmlspecialchars()` - used to convert special characters to HTML entities to prevent XSS attacks

`strip_tags()` - used to strip HTML and PHP tags from a string

`filter_var()` - used to filter a variable with a specified filter

**K. J. Somaiya College of Engineering, Mumbai-77**

(A Constituent College of Somaiya Vidyavihar University)

`preg_match()` - used for regular expression pattern matching

`empty()` - used to check if a variable is empty or not

`isset()` - used to check if a variable is set and not null

`strlen()` - used to get the length of a string

`is_numeric()` - used to check if a value is numeric or not

`ctype_alpha()` - used to check if a string contains only alphabetic characters

`ctype_digit()` - used to check if a string contains only digits

`password_hash()` - used to hash a password

`password_verify()` - used to verify a password against a hash

These functions are just a few examples of the various built-in functions available in PHP for handling form data and validating user inputs.