Methodology followed:

```html
<html>
    <head><center><h2>Vehicle Registration Form</h2></center>
    <style>
    .error {color: #FF0000;}
    </style>
    </head>
    <body>
        <?php
            $nameErr = $emailErr = $pnoErr = $stateErr = $typeErr= $modelErr=$rnoErr=$dateErr=$commentErr="";
            $name = $email = $pno = $state = $type = $model = $rno =$date=$comment="" ;
            $flag=0;
            function test_input($data) {
                $data = trim($data);
                $data = stripslashes($data);
                $data = htmlspecialchars($data);
                return $data;
            }
            if (isset($_POST['submit'])) {
                if (empty($_POST["name"])) {
                $nameErr = "Name is required";
                }
                else {
                $name = test_input($_POST["name"]);
                if (!preg_match("/^[a-zA-Z ]*$/",$name)) {
                    $nameErr = "Only letters and white space allowed";
                    $name=NULL;
                }
                }

                if (empty($_POST["email"])) {
                $emailErr = "Email is required";
                }
                else {
                $email = test_input($_POST["email"]);
                if (!filter_var($email, FILTER_VALIDATE_EMAIL)) {
                    $emailErr = "Invalid email format";
                    $email=NULL;
                }

                }
                }
```

```php
if (empty($_POST["pno"])) {
$pnoErr = "Phone number is required";
}
else {
$pno = test_input($_POST["pno"]);
if (!preg_match("/^[6-9][0-9]{9}$/" ,$pno)) {
    $pnoErr = "Only 10 Digit Number allowed";
    $pno=NULL;
}
}
if (empty($_POST["type"])) {
    $typeErr = "Vehicle Type is Required is required";
}
else {
    $type = test_input($_POST["type"]);

}

if (empty($_POST["comment"])) {
$comment = "";
}
else {
$comment = test_input($_POST["comment"]);
}


if(empty($_POST["state"]) || $_POST["state"]=="Select One") {
$stateErr = "state is required";
}
else {
$state = test_input($_POST["state"]);
}

if (empty($_POST["model"])) {
$modelErr = "Model is required";
}
else {
$model = test_input($_POST["model"]);
if (!preg_match("/^[A-Za-z0-9]*$/",$model)) {
    $modelErr = "Invalid Model Name";
    $model=NULL;
}
}

if (empty($_POST["rno"])) {
    $rnoErr = "Registration Number is required";
}
else{
    $rno = test_input($_POST["rno"]);
if (!preg_match("/^[A-Z]{2}[0-9]{2}[A-Z]{2}[0-9]{4}$/" ,$rno)) {
```

```php
                $rnoErr = "Invalid Registration Plate";
                $rno=NULL;
            }
        }
        if(empty($_POST["date"])) {
            $dateErr = "Date is required";
        }
        else{
            $date = test_input($_POST["date"]);
        }
    }

?>


<form method="post" action="<?php echo htmlspecialchars($_SERVER["PHP_SELF"]);?>">
    Name:<input type="text" name="name" value="<?php echo $name?>">
    <span class="error">* <?php echo $nameErr;?></span>
    <br><br>
    Email:<input type="text" name="email" value="<?php echo $email?>">
    <span class="error">* <?php echo $emailErr;?></span>
    <br><br>
    Phone Number:<input type="number" name="pno" maxlength="10" value="<?php echo $pno?>">
    <span class="error">* <?php echo $pnoErr;?></span>
    <br><br><br>
    State:<select name="state">
        <option value="Select One" <?=$state=="Select One"? "selected":"";?>>Select One</option>
        <option value="Gujarat" <?=$state=="Gujarat"? "selected":"";?>>Gujarat</option>
        <option value="Rajasthan" <?=$state=="Rajasthan"? "Rajasthan":"";?>>Rajasthan</option>
        <option value="Maharashtra" <?=$state=="Maharashtra"? "":"";?>>Maharashtra</option>
        <option value="Delhi" <?=$state=="Delhi"? "selected":"";?>>Delhi</option>
    </select>
    <span class="error">* <?php echo $stateErr;?></span>
    <br><br>
    Vehicle Type:
    <input type="radio" name="type" value="Car"<?php if(isset($type)&& $type=="Car") echo
"checked";?>> Car
    <input type="radio" name="type" value="Bike"<?php if(isset($type)&& $type=="Bike") echo
"checked";?>>Bike
    <input type="radio" name="type" value="Tempo"<?php if(isset($type)&& $type=="Tempo") echo
"checked";?>>Tempo/Truck
    <span class="error">* <?php echo $typeErr;?></span>
    <br><br>
    Vehicle Model<input type="text" name="model" value="<?php echo $model?>">
    <span class="error">* <?php echo $modelErr;?></span>
    <br><br>
    Vehicle Registration Number:<input type="text" name="rno" maxlength="10" value="<?php echo
$rno?>">
    <span class="error">* <?php echo $rnoErr;?></span>
    <br><br>
    Date of servicing<input type="date" name="date" value="<?php echo $date?>">
```

```php
            <span class="error">* <?php echo $dateErr;?></span>
            <br><br>
            Type of Service:<br>
            <input type="checkbox" name="service[]" value="Diagnostic test"
            <?php if(isset($_POST['service'])) {
                foreach($_POST['service'] as $tmp)
                { if($tmp == "Diagnostic test")
                    { echo "checked=\"checked\""; break; }
                    }
                }
            ?>
            />Diagnostic test<br/>
            <input type="checkbox" name="service[]" value="Engine Servicing"
            <?php if(isset($_POST['service'])) {
                foreach($_POST['service'] as $tmp)
                { if($tmp == "Engine Servicing")
                    { echo "checked=\"checked\""; break; }
                    }
                }
            ?>/>Engine Servicing<br/>
            <input type="checkbox" name="service[]" value="Oil and Air Filtering"
            <?php if(isset($_POST['service'])) {
                foreach($_POST['service'] as $tmp)
                { if($tmp == "Oil and Air Filtering")
                    { echo "checked=\"checked\""; break; }
                    }
                }
            ?>/>Oil and Air Filtering<br/>
            <input type="checkbox" name="service[]" value="Tires Replacement"
            <?php if(isset($_POST['service'])) {
                foreach($_POST['service'] as $tmp)
                { if($tmp == "Tires Replacement")
                    { echo "checked=\"checked\""; break; }
                    }
                }
            ?>
            />Tires Replacement<br/>
            <br><br>
            Special Request:<textarea name="comment" rows="5" cols="40"><?php echo $comment; ?></textarea>
            <br><br>
            <input type="submit" name="submit" value="Submit">

    </form>
    <?php
        if(isset(($_POST['submit']))){
            echo"<table border=1>";
            echo "<tr><th>Fields</th>";
            echo "<th>Input</th></tr>";
            echo "<tr><td>Name</td><td>".$name."</td>";
            echo "<tr><td>Email</td><td>".$email."</td>";
```

```php
            echo "<tr><td>Phone Number</td><td>".$pno."</td>";
            echo "<tr><td>State</td><td>".$state."</td>";
            echo "<tr><td>Vehicle Type</td><td>".$type."</td>";
            echo "<tr><td>Vehicle Model</td><td>".$model."</td>";
            echo "<tr><td>Date</td><td>".$date."</td>";
            echo "<tr><td>Registration Number</td><td>".$rno."</td>";
        }
    ?>
    </center>
    </body>
</html>
```

Output:

Vehicle Registration Form

Name: Dhyan *

Email: 20bce204@nirmauni.ac.i *

Phone Number: 9316193022 *

State: Gujarat *

Vehicle Type: ● Car ○ Bike ○ Tempo/Truck *

Vehicle Model Scross *

Vehicle Registration Number: GJ01WE4807 *

Date of servicing 25 / 04 / 2023 *

Type of Service:
☑ Diagnostic test
☐ Engine Servicing
☑ Oil and Air Filtering
☐ Tires Replacement

Special Request:

Submit

Fields	Input
Name	Dhyan
Email	20bce204@nirmauni.ac.in
Phone Number	9316193022
State	Gujarat
Vehicle Type	Car
Vehicle Model	Scross
Date	2023-04-25
Registration Number	GJ01WE4807

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localhost/Practicals/Prac6A.php

Getting Started ⊕ Gmail ⊕ YouTube ⊕ AutoCAD Web App - … Life Insurance Corpora...

Other Bookmarks

Vehicle Registration Form

Name: 125 *

Email: adssd *

Phone Number: 9316193022 4254 *

State: Gujarat ˅ *

Vehicle Type: ● Car ○ Bike ○ Tempo/Truck *

Vehicle Model @$%% *

Vehicle Registration Number: wwwwwwwwww *

Date of servicing 25 / 04 / 2023 📅 *

Type of Service:
☑ Diagnostic test
☐ Engine Servicing
☑ Oil and Air Filtering
☐ Tires Replacement

Special Request:

[Submit]

Fields	Input
Name	Dhyan
Email	20bce204@nirmauni.ac.in
Phone Number	9316193022
State	Gujarat
Vehicle Type	Car
Vehicle Model	Scross
Date	2023-04-25
Registration Number	GJ01WE4807

Vehicle Registration Form

Name: [_____] * Only letters and white space allowed

Email: [_____] * Invalid email format

Phone Number: [_____] * Only 10 Digit Number allowed

State: [Gujarat ˅] *

Vehicle Type: ● Car ○ Bike ○ Tempo/Truck *

Vehicle Model [_____] * Invalid Model Name

Vehicle Registration Number: [_____] * Invalid Registration Plate

Date of servicing 25 / 04 / 2023 📅 *

Type of Service:
☑ Diagnostic test
☐ Engine Servicing
☑ Oil and Air Filtering
☐ Tires Replacement

Special Request:

[Submit]

Fields	Input
Name	
Email	
Phone Number	
State	Gujarat
Vehicle Type	Car
Vehicle Model	
Date	2023-04-25
Registration Number	

Practical No. 6B

Aim: Create a form for student semester grade report. Validate the form using PHP validators and display error messages.

Methodology followed:

```html
<!DOCTYPE HTML>
<html>
    <head>
        <style>
        .error {color: #FF0000;}
        </style>
    </head>
    <body>

        <?php
        // define variables and set to empty values
        $nameErr = $emailErr = $rollnoErr = $depErr = $semErr= $thocErr= $ccErr= $gtErr= $lampErr= $fmErr=
$catErr= "";
        $name = $email = $rollno = $dep = $sem = $thoc = $cc = $gt = $fm = $cat = $lamp = "" ;
        $marks=array_fill(0,6," ");
        $markErr=array_fill(0,6," ");
        $flag=0;



        if ($_SERVER["REQUEST_METHOD"] == "POST") {
            echo "<center>";
            $localhost="localhost";
            $username="root";
            $pass='';
            $database='Prac6';
            $con=mysqli_connect("localhost","root","","Prac6");

            if(!$con){
                echo"Connection Error : ".mysqli_connect_error()."<br>";
            }
            else{
                echo"Connected to Db";
            }
            function test_input($data) {
                $data = trim($data);
                $data = stripslashes($data);
                $data = htmlspecialchars($data);
                return $data;
            }

        if (empty($_POST["name"])) {
            $flag=1;
            $nameErr = "Name is required";
        } else {
            $name = test_input($_POST["name"]);
```

```php
        if(!preg_match("/[a-zA-Z ]+$/",$name)){
        $nameErr="Only characters and white spaces are allowed";
        }
    }

    if (empty($_POST["email"])) {
        $flag=1;
        $emailErr = "Email is required";
    }
    else {
        $email = test_input($_POST["email"]);
        if(!filter_var($email,FILTER_VALIDATE_EMAIL)){
        $emailErr="Improper email formate";
        }
    }


    if (empty($_POST["rollno"])) {
        $flag=1;
        $rollnoErr = "Roll No is required";
    } else {
        $rollno = test_input($_POST["rollno"]);
        if(!preg_match("/[20][A-Za-z]{3}[0-9]{3}/",$rollno)){
        $rollnoErr="Improper Roll No formate.";
        }
    }

    if (empty($_POST["dep"]) || $_POST["dep"]=="Select One") {
        $flag=1;
        $depErr = "Department is required";

    } else {
        $dep = test_input($_POST["dep"]);
    }

    if (empty($_POST["sem"]) || $_POST["sem"]=="Select One") {
        $flag=1;
        $semErr = "Semester is required";

    } else {
        $sem = test_input($_POST["sem"]);
    }

    $sum=0;

    if(!empty($_POST['marks'])){
        $marks=$_POST['marks'];
    for($i=0;$i<6;$i++){
        if($marks[$i]==" "){
        //$flag=1;
```

```php
        $markErr[$i]="Marks required.";
        }
        if((int)$marks[$i]<0 || (int)$marks[$i]>100){
        $marks[$i]=" ";
        $markErr[$i]="Invalid Marks";
        }

        else{
        $marks[$i]=(int)$marks[$i];
        $sum+=($marks[$i]*3);
        }
    }
        }
        else{
        $flag=1;
        }


        $spi=(int)$sum/(int)18;
        $spi=(int)$spi;
        if($spi==0){
            $flag=1;
        }


        if(isset($_POST['submit']) && !empty($markErr) && !empty($semErr) && !empty($depErr) &&
!empty($rollnoErr) && !empty($rollnoErr) && !empty($emailErr) && !empty($nameErr)){
        echo "$spi";

        $sql="INSERT INTO `Student` (`Name`, `Rollno`, `Email`, `Department`, `Semester`, `THOC`, `CC`,
`LAMP`, `IRS`, `FM`, `RS`, `spi`) VALUES ('$name', '$rollno', '$email', '$dep', '$sem', '$marks[0]',
'$marks[1]', '$marks[4]', '$marks[5]', '$marks[3]', '$marks[2]','$spi')";

        if (mysqli_query($con, $sql)) {
        echo "New record created successfully. Last inserted ID is: " . $name;
        } else {
        echo "Error: " . $sql . "<br>" . mysqli_error($con);
        }
        }

    }

    ?>
    <center>
    <h2>Student Semester Grade Report</h2>
    <p><span class="error">Note:* required field.</span></p>
    <form align="center" method="post" action="<?php echo htmlspecialchars($_SERVER["PHP_SELF"]);?>">
        Name: <input type="text" name="name"
        value="<?php echo $name; ?>">
        <span class="error">* <?php echo $nameErr;?></span>
```

```html
            <br><br>
            Roll no: <input type="text" name="rollno"
            value="<?php echo $rollno; ?>">
            <span class="error">* <?php echo $rollnoErr;?></span>
            <br><br>
            E-mail: <input type="text" name="email" value="<?php echo $email; ?>">
            <span class="error">* <?php echo $emailErr;?></span>
            <br><br>
            Department :
            <select name="dep">
                <option value="Select One" <?= $dep == "Select One"? "selected":"";?>>Select One</option>
                <option value="Computer Science" <?= $dep == "Computer Science"? "selected":"";?>>Computer
Science</option>
                <option value="Electrical" <?= $dep == "Electrical"? "selected":"";?>>Electrical</option>
                <option value="Mechanical " <?= $dep == "Mechanical"? "selected":"";?>>Mechanical</option>
                <option value="Civil" <?= $dep == "Civil"? "selected":"";?>>Civil</option>
                <option value="Chemical" <?= $dep == "Chemical"? "selected":"";?>>Chemical</option>
                <option value="Electronics and Instrumation" <?= $dep == "Electronics and Instrumation"?
"selected":"";?>>Electronics and Instrumation</option>

            </select>
            <span class="error">* <?php echo $depErr;?></span>
            <br><br>
            Semester :
            <select name="sem">
                <option value="Select One" <?= $sem == "Select One"? "selected":"";?>>Select One</option>
                <option value="1" <?= $sem == "1"? "selected":"";?>>1</option>
                <option value="2" <?= $sem == "2"? "selected":"";?>>2</option>
                <option value="3" <?= $sem == "3"? "selected":"";?>>3</option>
                <option value="4" <?= $sem == "4"? "selected":"";?>>4</option>
                <option value="5" <?= $sem == "5"? "selected":"";?>>5</option>
                <option value="6" <?= $sem == "6"? "selected":"";?>>6</option>
                <option value="7" <?= $sem == "7"? "selected":"";?>>7</option>
                <option value="8" <?= $sem == "8"? "selected":"";?>>8</option>

            </select>
            <span class="error">* <?php echo $semErr;?></span>
            <br><br>

            Enter marks of the follwing subjects:<br><br>

            Theory of Computation :
            <input type="text" name="marks[]" value="
            <?php
                    echo $marks[0];
                    ?>">

            <span class="error">* <?php echo $markErr[0];?></span>
            <br><br>
```

```php
                Cloud Computing :
                <input type="text" name="marks[]" value="
                <?php
                        echo $marks[1];
                        ?>">
                <span class="error">* <?php echo $markErr[1];?></span>
                <br><br>

                Remote Sensing And GIS :
                <input type="text" name="marks[]" value="
                <?php
                        echo $marks[2];
                        ?>">
                <span class="error">* <?php echo $markErr[2];?></span>
                <br><br>

                Financial Management :
                <input type="text" name="marks[]" value="
                <?php
                        echo $marks[3];
                        ?>">
                <span class="error">* <?php echo $markErr[3];?></span>
                <br><br>

                Lamp :
                <input type="text" name="marks[]" value="
                <?php
                        echo $marks[4];
                        ?>">
                <span class="error">* <?php echo $markErr[4];?></span>
                <br><br>


                IRS :
                <input type="text" name="marks[]" value="
                <?php
                        echo $marks[5];
                        ?>">
                <span class="error">* <?php echo $markErr[5];?></span>
                <br><br>




                <input type="submit" name="submit" value="Submit">
                <br><br>
        </form>
        <button align="center"><a href="display.php">Database</button>
        </center>
```

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

display.php

```
<!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>Database</title>
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.0-beta1/dist/css/bootstrap.min.css"
rel="stylesheet">
</head>
<body>

    <div class="container">
        <div class="row justify-content-center">
            <div class="col-md-12">

                <div class="card mt-5">
                    <div class="card-header">
                        <h4>Entries in the Database</h4>
                    </div>
                    <div class="card-body">

                        <table class="table table-bordered">
                            <thead>
                                <tr>
                                    <th>Sr.No</th>
                                    <th>Name</th>
                                    <th>Rollno</th>
                                    <th>Email</th>
                                    <th>Department</th>
                                    <th>Semester</th>
                                    <th>THOC</th>
                                    <th>CC</th>
                                    <th>LAMP</th>
                                    <th>IRS</th>
                                    <th>FM</th>
                                    <th>RS</th>
                                    <th>SPI</th>
                                </tr>
                            </thead>
                            <tbody>
                                <?php
```

```php
                        $con = mysqli_connect("localhost","root","","Prac6");

                        $query = "SELECT * FROM Student";
                        $query_run = mysqli_query($con, $query);

                        if(mysqli_num_rows($query_run) > 0)
                        {
                            foreach($query_run as $row)
                            {
                                ?>
                                <tr>
                                    <td><?= $row['Sr.No']; ?></td>
                                    <td><?= $row['Name']; ?></td>
                                    <td><?= $row['RollNo']; ?></td>
                                    <td><?= $row['Email']; ?></td>
                                    <td><?= $row['Department']; ?></td>
                                    <td><?= $row['Semester']; ?></td>
                                    <td><?= $row['THOC']; ?></td>
                                    <td><?= $row['CC']; ?></td>
                                    <td><?= $row['LAMP']; ?></td>
                                    <td><?= $row['IRS']; ?></td>
                                    <td><?= $row['FM']; ?></td>
                                    <td><?= $row['RS']; ?></td>
                                    <td><?= $row['spi']; ?></td>

                                </tr>
                                <?php
                            }
                        }
                        else
                        {
                            ?>
                                <tr>
                                    <td colspan="4">No Record Found</td>
                                </tr>
                            <?php
                        }
                        ?>

                </tbody>
            </table>

        </div>
        <div>
        <button><a href="Prac6B.php">Back to Form</button>
                </div>

    </div>

</div>
```

```
            </div>
      </div>


      <script src="https://code.jquery.com/jquery-3.5.1.js"></script>
      <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.0-
beta1/dist/js/bootstrap.bundle.min.js"></script>
</body>
</html>
```

Output:

Entries in the Database

Sr.No	Name	Rollno	Email	Department	Semester	THOC	CC	LAMP	IRS	FM	RS	SPI
1	Dhyan Rajeshkumar Patel	20BCE204	pdhyan92@gmail.com	Computer Science	6	90	89	92	84	98	95	91
2	Bhavya Nirma	20BCE198	20bce198@nirmauni.ac.in	Computer Science	6	45	67	54	76	98	35	62
3	Nupur	20BCE180	20BCE180@nirmauni.ac.in	Computer Science	6	90	93	98	85	96	95	92
4	Neel Patel	20BCE211	20BCE211@nirmauni.ac.in	Computer Science	6	56	67	87	65	67	86	71
27	Bhavya Nirma	20BCE198	2020BCE198@nirmauni.ac.in	Computer Science	6	98	97	85	96	90	95	93
30	Alisha	16BPH004	20bce204@nirmauni.ac.in	Computer Science	3	67	90	76	56	98	56	73

Back to Form

Practice Problem: Email validation Using Regex:

```html
<html>
    <head>
        <title>Email Validation</title>
    </head>
```

```php
<body>
<?php
// define variables and set to empty values
    $email1Err = "";
    $email1 ="";

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



        }


    }

    function test_input($data) {
    $data = trim($data);
    $data = stripslashes($data);
    $data = htmlspecialchars($data);
    return $data;
    }
?>

    <form method="post" action="<?php echo htmlspecialchars($_SERVER["PHP_SELF"]);?>">
        E-mail1: <input type="text" name="email1" value="<?php echo $email1; ?>">
        <span class="error">* <?php echo $email1Err;?></span>
        <br><br>



        <br><br>
        <input type="submit" name="submit" value="Submit">
    </form>


    </body>
</html>
```
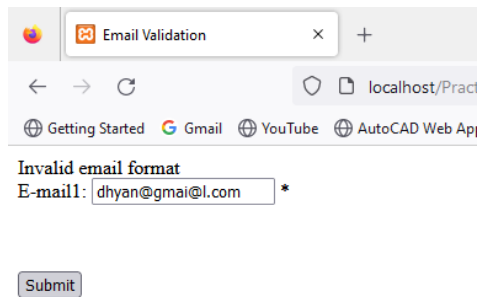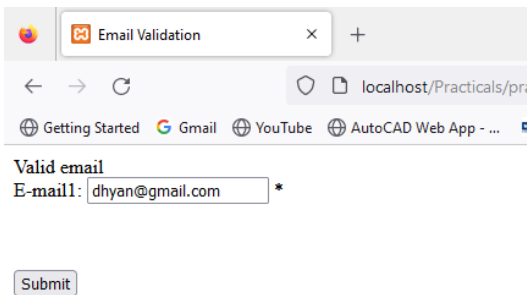
1. **@ symbol should not appear more than once**

```php
if ($_SERVER["REQUEST_METHOD"] == "POST") {

    if (empty($_POST["email1"])) {
        $email1Err = "Email is required";
    }
    else {
        $email1 = test_input($_POST["email1"]);

        if (!filter_var($email1, FILTER_VALIDATE_EMAIL)) {
            echo "Invalid email format";
        }
        else if (substr_count($email1, '@') > 1) {
            echo "Invalid email format: '@' symbol appears more than once";
        }
        else {
            echo "Valid email";
        }

    }

}
```

"." Can appear at most once before @ and at most twice or at least once after @

```php
if (empty($_POST["email1"])) {
        $email1Err = "Email is required";
    }
    else {
        $email1 = test_input($_POST["email1"]);



        if (preg_match("/^[^\.]+(\.[^\.]+)?@([^\.\s]+\.)+[a-z]{2,}$/i",$email1)) {
        echo "Valid email";
        } else {
        echo "Invalid email format";
```

```
            }

}
```

Invalid email format
E-mail1: dhyan.sd.fe@gmail.com *

Submit

Sub-string before @ should not begin with a digit or _ or "." or any other special characters.

```php
if (empty($_POST["email1"])) {
        $email1Err = "Email is required";
    }
    else {
        $email1 = test_input($_POST["email1"]);

        if (preg_match("/^[^0-9_.#@$%^&*()!][^@]*@([^\.\s]+\.)+[a-z]{2,}$/i",$email1)) {
        echo "Valid email";
        } else {
        echo "Invalid email format";
        }



}
```

Invalid email format
E-mail1: %dhyan@gmail.com *

Submit

Conclusion : In this Practical we learned about form validation and regular expressions and inserting data in MySQL database from the php form.