

PRACTICAL SET 4 – PHP & MYSQL

[CO4] Write the server side scripts for designing web-based services with database connectivity.

AIM 1: Extend Practical set 3(4) by applying insert operation and display the student records with update and delete facility.

- **Theory:**

Before we can access data in the MySQL database, we need to be able to connect to the server connection object.

After a database and a table have been created, we can start adding data in them.

Here are some syntax rules to follow:

- The SQL query must be quoted in PHP
- String values inside the SQL query must be quoted
- Numeric values must not be quoted
- The word NULL must not be quoted

The INSERT INTO statement is used to add new records to a MySQL table:

```
INSERT INTO table_name (column1, column2, column3,...)
VALUES (value1, value2, value3,...)
```

The UPDATE statement is used to update existing records in a table:

```
UPDATE table_name
SET column1=value, column2=value2,...
WHERE some_column=some_value
```

The DELETE statement is used to delete records from a table:

```
DELETE FROM table_name
WHERE some_column = some_value.
```



- **Program:**

Index.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>Student Registration Form</title>

  <style>
    @import
url('https://fonts.googleapis.com/css2?family=Montserrat:wght@300;400;500;600;700;800;900&display=swap');
  </style>

  <style>
    * {
      margin: 0;
      padding: 0;
      box-sizing: border-box;
      font-family: 'Montserrat', sans-serif;
    }

    body {
      height: 100vh;
      background: linear-gradient(rgba(0, 0, 0, 0.3), rgba(0, 0, 0, 0.5)), url("./Images/University.jpg");
      background-repeat: no-repeat;
      background-size: cover;
    }

    .container {
      margin-inline: auto;
      max-width: 1350px;
      text-align: center;
      padding: 2rem;
    }

    .form-container {
      background: rgba(0, 0, 0, 0.5);
      max-width: 50%;
      margin-inline: auto;
      margin-top: 3rem;
      border-radius: 0.5rem;
      padding: 2rem;
    }
  </style>
```



```
label,
input,
select,
textarea {
    margin-inline: 2rem;
    margin-block: 0.5rem;
}

table {
    margin-inline: auto;
}

td {
    text-align: left;
    font-size: 1.3rem;
    font-weight: 500;
    /* border: 1px solid red; */
}

.gender,
.hobby {
    margin: 0;
    padding: 0;
    font-size: 1rem;
}

label {
    color: #FFFFFFF;
}

input,
textarea {
    padding: 0.2rem;
    border-radius: 0.25rem;
}

select,
option {
    color: #000000;
    padding: 0.2rem;
    border-radius: 0.25rem;
}

.gender-container {
    text-align: center;
}
```



```
.hobbies-container {
    text-align: center;
}

.btn-td {
    text-align: center;
}

.btn {
    padding: 0.5rem 1rem;
    color: #000000;
    font-weight: 500;
    border-radius: 0.25rem;
}
</style>
</head>

<body>
    <div class="container">
        <h1>Student Registration Form</h1>

        <div class="form-container">
            <form action="/addStudent.php" method="post">
                <table>
                    <tr>
                        <td><label for="sname">Name :</label></td>
                        <td><input type="text" name="sname" placeholder="John Ryan"></td>
                    </tr>
                    <tr>
                        <td><label for="senroll">Enrollment :</label></td>
                        <td><input type="number" name="senroll" placeholder="200280107xxx"></td>
                    </tr>
                    <tr>
                        <td><label for="semail">Email :</label></td>
                        <td><input type="email" name="semail" placeholder="abc@xyz.com"></td>
                    </tr>
                    <tr>
                        <td><label for="sgender">Gender :</label></td>
                        <td>
                            <div class="gender-container">
                                <input type="radio" name="sgender" value="Male" class="gender"> <Label
                                    class="gender">Male</Label>
                                <input type="radio" name="sgender" value="Female" class="gender"> <Label
                                    class="gender">Female</Label>
                            </div>
                        </td>
                    </tr>
                </table>
            </form>
        </div>
    </div>
</body>
```



```
<td><label for="sem">Sem :</label></td>
<td><input type="number" name="sem" placeholder="Your Sem..."></td>
</tr>
<tr>
<td><label for="scity">City :</label></td>
<td>
<select name="scity" id="scity">
<option value="Valsad"> Valsad </option>
<option value="Surat"> Surat </option>
<option value="Ahmedabad"> Ahmedabad </option>
</select>
</td>
</tr>
<tr>
<td><label for="shobbies">Hobbies :</label></td>
<td>
<div class="hobbies-container">
<input type="checkbox" name="shobby" value="Cricket" class="hobby" checked> <Label
class="hobby">Cricket</Label>
<input type="checkbox" name="shobby" value="Reading" class="hobby"> <Label
class="hobby">Reading</Label>
</div>
</td>
</tr>
<tr>
<td><label for="sfeedback">FeedBack :</label></td>
<td><textarea name="sfeedback" cols="20" rows="5" placeholder="FeedBack..."></textarea></td>
</tr>
<tr>
<td class="btn-td"><input type="submit" value="Submit" name="submit" class="btn"></td>
<td class="btn-td"><input type="reset" value="Reset" class="btn"></td>
</tr>
</table>
</form>
</div>
</div>
</body>

</html>
```

addStudent.php

```
<?php
$servername = "localhost";
$username = "root";
$password = "";
$db = "student";
```



```
$con = mysqli_connect($servername, $username, $password, $db);

if (isset($_POST['submit'])) {

    $name = $_POST['sname'];
    $enroll = $_POST['senroll'];
    $email = $_POST['semail'];
    $gender = $_POST['sgender'];
    $sem = $_POST['sem'];
    $city = $_POST['scity'];
    $hobby = $_POST['shobby'];
    $feedback = $_POST['sfeedback'];

    $insertQuery = "INSERT INTO students values ('', '$name', '$enroll', '$email', '$gender', '$sem', '$city', '$hobby', '$feedback')";

    $insertt = mysqli_query($con, $insertQuery);
}
if (isset($_POST['edit-submit'])) {
    $name = $_POST['sname'];
    $enroll = $_POST['senroll'];
    $email = $_POST['semail'];
    $gender = $_POST['sgender'];
    $sem = $_POST['sem'];
    $city = $_POST['scity'];
    $hobby = $_POST['shobby'];
    $feedback = $_POST['sfeedback'];

    $insertQuery = "UPDATE students set name='$name' , enroll='$enroll', email='$email', gender='$gender', sem='$sem', city='$city', hobby='$hobby', feedback='$feedback'";

    $updated = mysqli_query($con, $insertQuery);
}
?>
<html>

<head>

<style>
    * {
        margin: 0;
        padding: 0;
        box-sizing: border-box;
        font-family: 'Montserrat', sans-serif;
    }

    body {
        height: 100vh;
```



```
background: linear-gradient(rgba(0, 0, 0, 0.3), rgba(0, 0, 0, 0.5)), url("../Images/University.jpg");
background-repeat: no-repeat;
background-size: cover;
}

.container {
  margin-inline: auto;
  max-width: 1350px;
  text-align: center;
  padding: 2rem;
}

.h1 {
  margin-block: 1rem;
}

table {
  margin-inline: auto;
  border: 1px solid black;
  border-collapse: collapse;
}

th {
  border: 1px solid black;
}

td {
  text-align: left;
  font-size: 1.3rem;
  font-weight: 500;
  border: 1px solid black;
}

.btn-td {
  text-align: center;
}

.btn {
  padding: 0.5rem 1rem;
  color: #000000;
  font-weight: 500;
  border-radius: 0.25rem;
}

.card {
  width: 80%;
  margin-inline: auto;
  border: 2px solid #000000;
```



```
        border-radius: 0.5rem;
        padding: 1rem;
    }
</style>

</head>

<body>
    <div class="container">
        <h1>User Details</h1>
        <?php
            $sqlfetch = mysqli_query($con, "SELECT * from students");
            while ($fetchrecords = mysqli_fetch_assoc($sqlfetch)) {
                ?>
                <div class="card">
                    <table>
                        <tbody>
                            <tr>
                                <th>Student ID : </th>
                                <td>
                                    <?php echo $fetchrecords['id']; ?>
                                </td>
                            </tr>
                            <tr>
                                <th>Name : </th>
                                <td>
                                    <?php echo $fetchrecords['name']; ?>
                                </td>
                            </tr>
                            <tr>
                                <th>Enrollment : </th>
                                <td>
                                    <?php echo $fetchrecords['enroll']; ?>
                                </td>
                            </tr>
                            <tr>
                                <th>Email : </th>
                                <td>
                                    <?php echo $fetchrecords['email']; ?>
                                </td>
                            </tr>
                            <tr>
                                <th>Gender : </th>
                                <td>
                                    <?php echo $fetchrecords['gender']; ?>
                                </td>
                            </tr>
                            <tr>
                                <td>
                                </td>
                            </tr>
                        </tbody>
                    </table>
                </div>
            }
        </div>
    </body>
</html>
```




```
<th>Sem : </th>
<td>
    <?php echo $fetchrecords['sem']; ?>
</td>
</tr>
<tr>
<th>City : </th>
<td>
    <?php echo $fetchrecords['city']; ?>
</td>
</tr>
<tr>
<th>Hobbies : </th>
<td>
    <?php echo $fetchrecords['hobby']; ?>
</td>
</tr>
<tr>
<th>Feedback : </th>
<td>
    <?php echo $fetchrecords['feedback']; ?>
</td>
</tr>
<tr>
<td class="btn-td"><a class="btn"
    href="editStudent.php?sid=<?php echo $fetchrecords['id']; ?>">Update</a></td>
</tr>
<tr>
<td class="btn-td"><a class="btn"
    href="deleteStudent.php?sid=<?php echo $fetchrecords['id']; ?>">Delete</a></td>
</tr>
</tbody>
</table>
</div>
<?php
}
?>
</div>
</body>

</html>
```

editStudent.php

```
<?php
$servername = "localhost";
$username = "root";
```

WEB PROGRAMMING
(3160713)



```
$password = "";
$db = "student";
$con = mysqli_connect($servername, $username, $password, $db);

$sid = $_GET['sid'];
$sqlfetchinformation = mysqli_query($con, "SELECT *from students where id='$sid'");

while ($fetchinformation = mysqli_fetch_assoc($sqlfetchinformation)) {
    $name = $fetchinformation['name'];
    $enroll = $fetchinformation['enroll'];
    $email = $fetchinformation['email'];
    $gender = $fetchinformation['gender'];
    $sem = $fetchinformation['sem'];
    $city = $fetchinformation['city'];
    $hobby = $fetchinformation['hobby'];
    $feedback = $fetchinformation['feedback'];
}
?>

<!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>Student Registration Form</title>

    <style>
        @import
url('https://fonts.googleapis.com/css2?family=Montserrat:wght@300;400;500;600;700;800;900&display=swap');
    </style>

    <style>
        * {
            margin: 0;
            padding: 0;
            box-sizing: border-box;
            font-family: 'Montserrat', sans-serif;
        }

        body {
            height: 100vh;
            background: linear-gradient(rgba(0, 0, 0, 0.3), rgba(0, 0, 0, 0.5)), url("./Images/University.jpg");
            background-repeat: no-repeat;
            background-size: cover;
        }
    </style>
</head>
```



```
.container {
  margin-inline: auto;
  max-width: 1350px;
  text-align: center;
  padding: 2rem;
}

.form-container {
  background: rgba(0, 0, 0, 0.5);
  max-width: 50%;
  margin-inline: auto;
  margin-top: 3rem;
  border-radius: 0.5rem;
  padding: 2rem;
}

label,
input,
select,
textarea {
  margin-inline: 2rem;
  margin-block: 0.5rem;
}

table {
  margin-inline: auto;
}

td {
  text-align: left;
  font-size: 1.3rem;
  font-weight: 500;
  /* border: 1px solid red; */
}

.gender,
.hobby {
  margin: 0;
  padding: 0;
  font-size: 1rem;
}

label {
  color: #FFFFFFF;
}

input,
textarea {
```



```
padding: 0.2rem;
border-radius: 0.25rem;
}

select,
option {
color: #000000;
padding: 0.2rem;
border-radius: 0.25rem;
}

.gender-container {
text-align: center;
}

.hobbies-container {
text-align: center;
}

.btn-td {
text-align: center;
}

.btn {
padding: 0.5rem 1rem;
color: #000000;
font-weight: 500;
border-radius: 0.25rem;
}
</style>
</head>

<body>
<div class="container">
<h1>Student Registration Form</h1>

<div class="form-container">
<form action="/addStudent.php" method="post">
<table>
<tr>
<td><label for="sname">Name :</label></td>
<td><input type="text" name="sname" value="<?php echo $name; ?>"></td>
</tr>
<tr>
<td><label for="senroll">Enrollment :</label></td>
<td><input type="number" name="senroll" value="<?php echo $senroll; ?>"></td>
</tr>
<tr>
```

WEB PROGRAMMING
(3160713)



```
<td><label for="semail">Email :</label></td>
<td><input type="email" name="semail" value="<?php echo $semail; ?>"></td>
</tr>
<tr>
<td><label for="sgender">Gender :</label></td>
<td>
<div class="gender-container">
<input type="radio" name="sgender" value="Male" class="gender" checked> <Label
class="gender">Male</Label>
<input type="radio" name="sgender" value="Female" class="gender"> <Label
class="gender">Female</Label>
</div>
</td>
</tr>
<tr>
<td><label for="sem">Sem :</label></td>
<td><input type="number" name="sem" value="<?php echo $sem; ?>"></td>
</tr>
<tr>
<td><label for="scity">City :</label></td>
<td>
<select name="scity" id="scity">
<option value="Valsad"> Valsad </option>
<option value="Surat"> Surat </option>
<option value="Ahmedabad"> Ahmedabad </option>
</select>
</td>
</tr>
<tr>
<td><label for="shobbies">Hobbies :</label></td>
<td>
<div class="hobbies-container">
<input type="checkbox" name="shobby" value="Cricket" class="hobby" checked> <Label
class="hobby">Cricket</Label>
<input type="checkbox" name="shobby" value="Reading" class="hobby"> <Label
class="hobby">Reading</Label>
</div>
</td>
</tr>
<tr>
<td><label for="sfeedback">FeedBack :</label></td>
<td><textarea name="sfeedback" cols="20" rows="5">value="<?php echo $name;
?>"</textarea></td>
</tr>
<tr>
<td class="btn-td"><input type="submit" value="Submit" name="edit-submit" class="btn"></td>
<td class="btn-td"><input type="reset" value="Reset" class="btn"></td>
</tr>
```

```
</table>
</form>
</div>
</div>
</body>

</html>
```

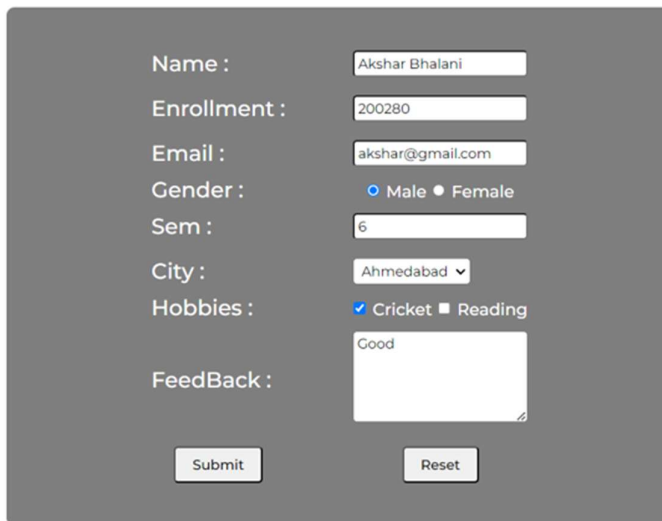
deleteStudent.php

```
<?php
$servername = "localhost";
$username = "root";
$password = "";
$db = "student";
$con = mysqli_connect($servername, $username, $password, $db);

$sid = $_GET['sid'];
$query = mysqli_query($con, "DELETE FROM students where id='$sid'");
if ($query) {
    echo "<h2>Record Deleted</h2>";
}
?>
```

- **Output :**

Student Registration Form



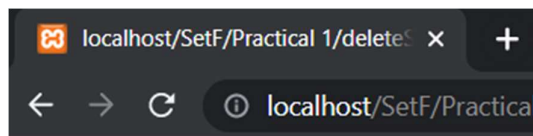
The screenshot shows a web form titled "Student Registration Form" on a dark gray background. The form contains the following fields and controls:

- Name :** Text input field containing "Akshar Bhalani".
- Enrollment :** Text input field containing "200280".
- Email :** Text input field containing "akshar@gmail.com".
- Gender :** Radio button group with "Male" selected and "Female" unselected.
- Sem :** Text input field containing "6".
- City :** Dropdown menu showing "Ahmedabad".
- Hobbies :** Checkboxes for "Cricket" (checked) and "Reading" (unchecked).
- FeedBack :** Text area containing "Good".
- Submit :** Button at the bottom left.
- Reset :** Button at the bottom right.



User Details

Student ID :	13
Name :	Akshar Bhalani
Enrollment :	200280
Email :	akshar@gmail.com
Gender :	Male
Sem :	6
City :	Ahmedabad
Hobbies :	Cricket
Feedback :	Good
<u>Update</u>	
<u>Delete</u>	



Record Deleted

Signature of Faculty:

Grade:



AIM 2: The user is first served a login page which takes users name and password. After submitting the details, the server checks these values against the data from a database and takes the following decisions

- a. If name and password match, serves a welcome page with user's full name.**
- b. If name matches and password does not match, then serves password mismatch page.**
- c. If name not found in database, serves a registration page where users full name is asked and on submitting the full name, it stores, the login name, password and full name in the database (HINT: Use session for storing the submitted login name and password.)**

Theory:

A session is a way to store information (in variables) to be used across multiple pages.

Unlike a cookie, the information is not stored on the user's computer.

What Is Session??

When you work with an application, you open it, do some changes, and then you close it. This is much like a Session. The computer knows who you are. It knows when you start the application and when you end. But on the internet there is one problem: the web server does not know who you are or what you do, because the HTTP address doesn't maintain state.

Session variables solve this problem by storing user information to be used across multiple pages (e.g. username, favourite colour, etc.). By default, session variables last until the user closes the browser.

So; Session variables hold information about one single user, and are available to all pages in one application.

Start a PHP Session

A session is started with the `session_start()` function.

Session variables are set with the PHP global variable: `$_SESSION`.

Get PHP Session Variable Values

Notice that session variables are not passed individually to each new page, instead they are retrieved from the session we open at the beginning of each page (`session_start()`).

Also notice that all session variable values are stored in the global `$_SESSION` variable.



- **Program:**

main.php

```
<html>

<body>
  <h3>Login Form</h3>
  <form action="/checkLogin.php" method="POST">
    <label>UserName : </label>
    <input type="text" name="username" required>
    <br>
    <label>Password : </label>
    <input type="password" name="password" required>
    <br>
    <button type="submit">Submit</button>
  </form>
</body>

</html>
```

checkLogin.php

```
<?php
session_start();
$servername = "localhost";
$username = "root";
$password = "";
$db = "user";
$con = mysqli_connect($servername, $username, $password, $db);

$username = $_POST['username'];
$password = $_POST['password'];

$sqlfetch = mysqli_query($con, "SELECT * from users where username='$username'");
$numrows = mysqli_num_rows($sqlfetch);

if ($numrows == 0) {
  $_SESSION['username'] = $username;
  $_SESSION['password'] = $password;
  header('Location:registration.php');
} else {
  while ($fetchdetail = mysqli_fetch_assoc($sqlfetch)) {
    $fetchedpassword = $fetchdetail['password'];
  }
  if ($fetchedpassword == $password) {
    echo "<h1>Welcome " . $username . " !";
  } else {
```



```
        header('Location:passwordMismatch.html');
    }
}
?>
```

passwordMismatch.html

```
<html>

<body>
    <h4 style="text-align: center;">Password Doesn't match Try again</h4>
</body>

</html>
```

Registration.php

```
<?php
session_start();
$username = $_SESSION['username'];
$password = $_SESSION['password'];
?>
<html>

<body>
    <form action="/addUser.php" method="POST">
        Full Name:<input type="text" name="full_name">
        <br>
        User_name:<input type="text" name="username" value="<?php echo $username ?>" readonly>
        <br>
        Password:<input type="text" name="password" value="<?php echo $password ?>" readonly>
        <br>
        <button type="submit">Submit</button>
    </form>
</body>

</html>
```

addUser.php

```
<?php
```



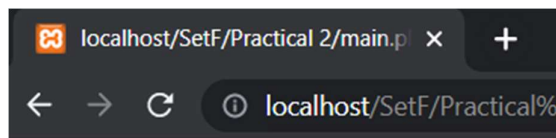
```
$servername = "localhost";
$username = "root";
$password = "";
$db = "user";
$con = mysqli_connect($servername, $username, $password, $db);

$username = $_POST['username'];
$password = $_POST['password'];
$full_name = $_POST['full_name'];

mysqli_insert = mysqli_query($con, "INSERT INTO users values('$full_name','$username','$password')");

if ($mysqli_insert) {
    echo "<h3>INSERTED SUCCESSFULLY</h3>";
    header('Location:main.php');
}
?>
```

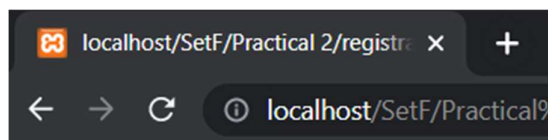
- **Output :**



Login Form

UserName :

Password :



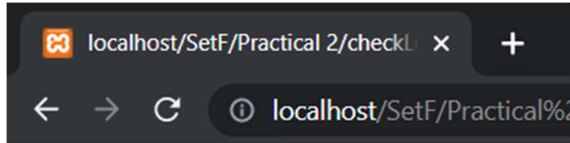
Full Name:

User_name:

Password:



Password Doesn't match Try again



Welcome akshar87 !

Signature of Faculty:

Grade:

AIM 3: Write a program that keeps track of how many times a visitor has loaded the page.

Theory:

A **session** mechanism can be used to store page views which increment on each refresh and show the count on a webpage. A session is user specific and for every user, a separate session is created along with a separate session variable which is associated with that session. Using this mechanism, for every user the session variable is set to 1 initially for the first visit. On consecutive visits, the value of this session variable is incremented and displayed on the output webpage.

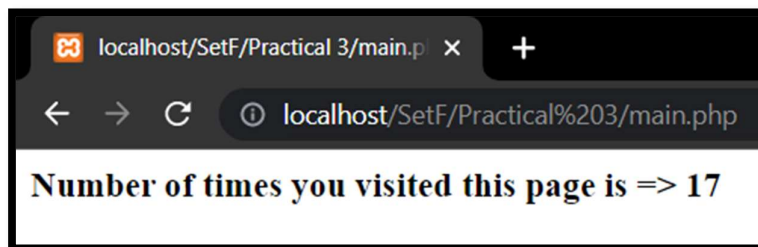
• Program:

```
<?php
session_start();
if (isset($_SESSION['refresh'])) {
    $_SESSION['refresh'] = $_SESSION['refresh'] + 1;
} else {
    $_SESSION['refresh'] = 1;
}
?>
<html>

<body>
    <h3>Number of times you visited this page is =>
        <?php echo $_SESSION['refresh'] ?>
    </h3>
</body>

</html>
```

• Output :



Signature of Faculty:

Grade:

PRACTICAL SET 5 – AJAX & JQuery

[CO5] Develop a web application using advanced web programming features including AJAX and JQuery using concepts of Web API.

AIM 1: Mini Project on given titles.

- **Theory:**

What is Ajax?

Asynchronous JavaScript and XML can be defined as a set of users in building websites and web applications. Identifying specific purposes in web development applications is the best way to understand Ajax. Ajax's main work is to update the content asynchronously means in the user's web page whole content need not be reloaded, and only the required field is reloaded. XML is a markup language means these are coded languages to annotate parts of a web document which gives web browsers instructions about understanding and displaying the user content.

It combines various programming tools like JavaScript, HTML, DHTML, XML (extensible markup language), CSS (cascading style sheets), DOM (document object model) and Microsoft object

What is jQuery?

jQuery is an open-source JavaScript library that simplifies the interactions between an HTML/CSS document, or more precisely the Document Object Model (DOM), and JavaScript. Elaborating the terms, it simplifies HTML document traversing and manipulation, browser event handling, DOM animations, Ajax interactions, and cross-browser JavaScript development

What is Web API?

API stands for Application Programming Interface. API is actually some kind of interface which is having a set of functions. These set of functions will allow programmers to acquire some specific features or the data of an application.

Web API is an API as the name suggests, it can be accessed over the web using the HTTP protocol. It is a framework that helps you to create and develop HTTP based RESTFUL services. The web API can be developed by using different technologies such as java, ASP.NET, etc.



- **Program:**

- **Output**

Signature of Faculty:

Grade: