2 **Aim: -** Connect to MySQL database system and create new database

Learning outcome: -Able to configure embedded databases with different web pages using XAMPP and MySQL.

Requirement of Hardware & Software: -

1 Working PC.

2 Windows Operating System.

3 Xampp server.

4 Notepad Code editor and any browser.

Procedure: -

Open your Xampp server and Start Apache and MySQL.

Then after open Notepad code editor.

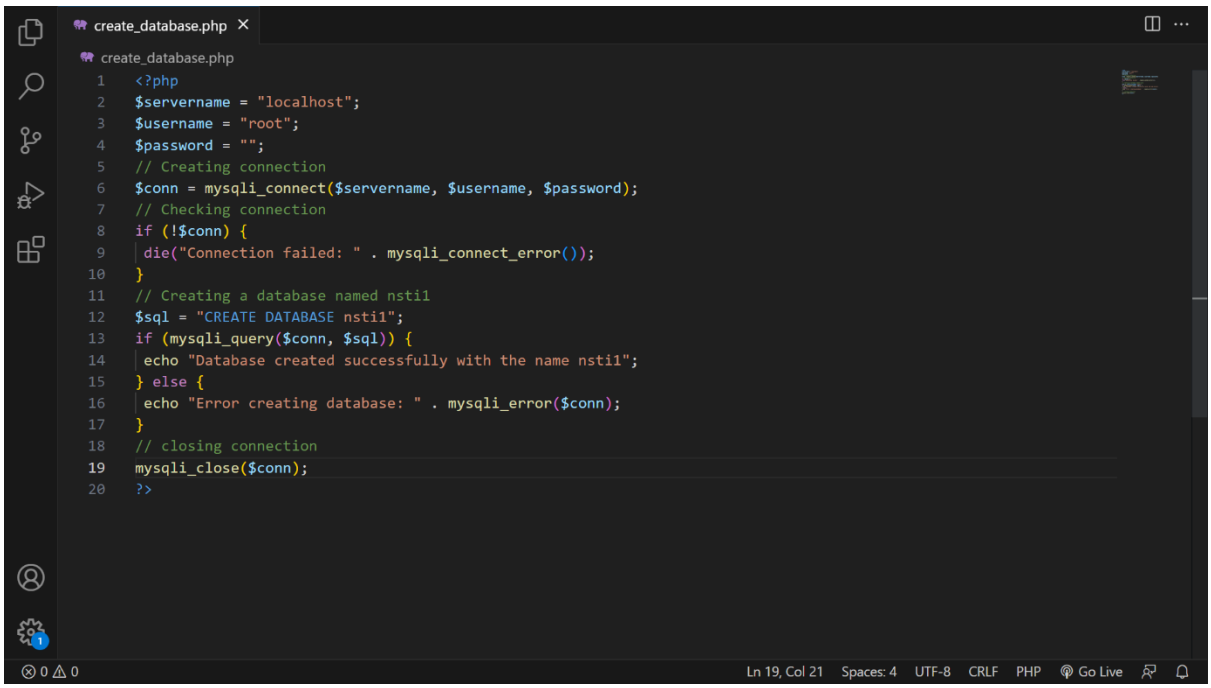
Then after write MySQL code.

Code: -

```
<?php
$servername = "localhost";
$username = "root";
$password = "";
// Creating connection
$conn = mysqli_connect($servername, $username, $password);
// Checking connection
if (!$conn) {
 die("Connection failed: " . mysqli_connect_error());
```

```
}
// Creating a database named nsti1
$sql = "CREATE DATABASE nsti1";
if (mysqli_query($conn, $sql)) {
 echo "Database created successfully with the name nsti1";
} else {
 echo "Error creating database: " . mysqli_error($conn);
}
// closing connection
mysqli_close($conn);
?>
```

Screenshot of code

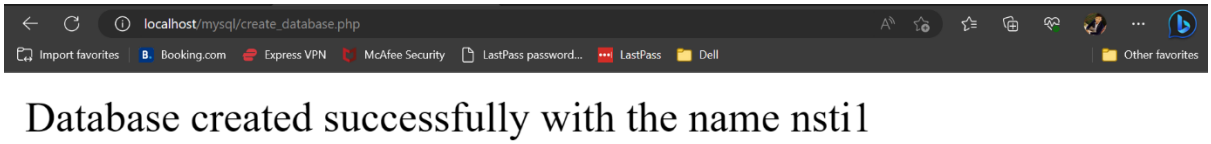


Then after executed code: -

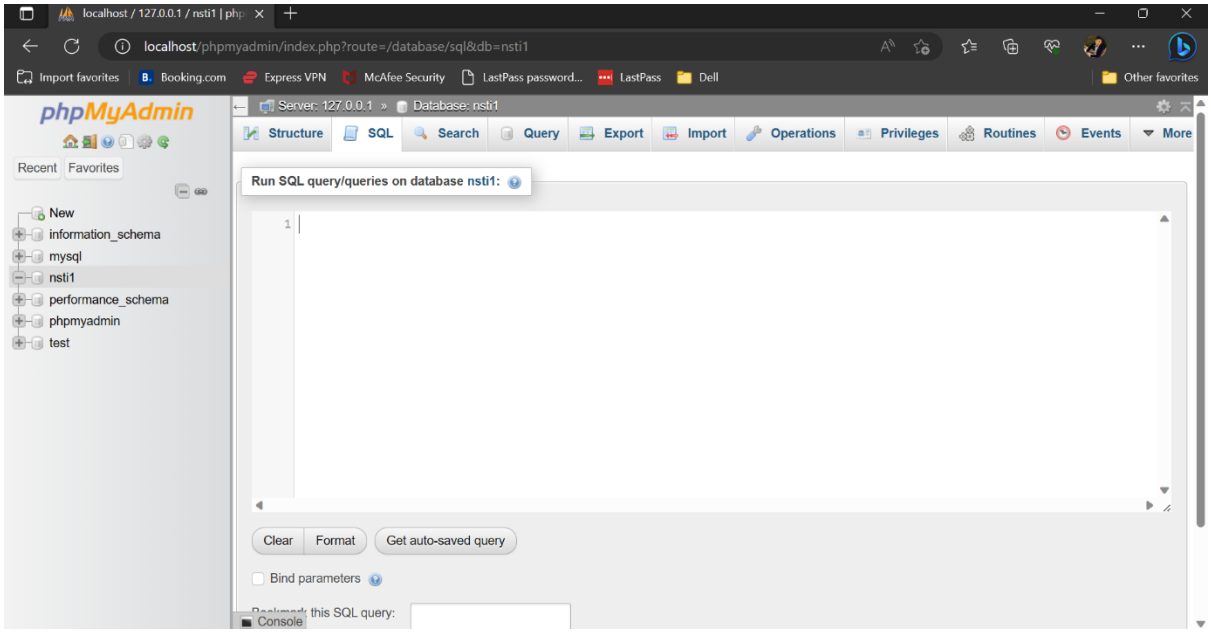
After go to browser and search: -

localhost/adit(folder_name)filename.

Output: -



Then after go to MySQL Databases and see database name



Successfully created Database name Nsti1

3 **Aim: -** Create tables in new databases and enter sample data.

Learning outcome: -Able to configure embedded databases with different web pages using XAMPP and MySQL.

Requirement of Hardware & Software: -

1 Working PC.

2 Windows Operating System.

3 Xampp server.

4 Notepad Code editor and any browser.

Procedure: -

Open your Xampp server and Start Apache and MySQL.

Then after open Notepad code editor.

Then after write MySQL code.

Code: -

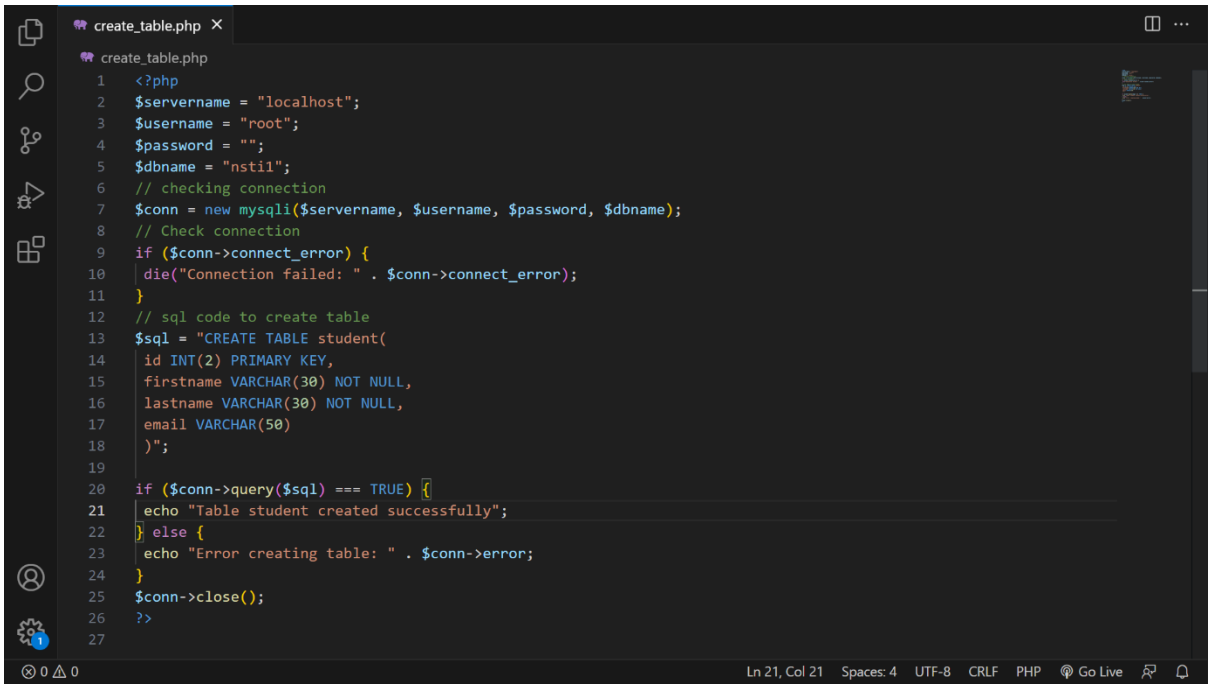
<?php

```
$servername = "localhost";
$username = "root";
$password = "";
$dbname = "nsti1";
// checking connection
$conn = new mysqli($servername, $username, $password,
$dbname);
// Check connection
if ($conn->connect_error) {
 die("Connection failed: " . $conn->connect_error);
}
// sql code to create table
$sql = "CREATE TABLE student(
 id INT(2) PRIMARY KEY,
 firstname VARCHAR(30) NOT NULL,
 lastname VARCHAR(30) NOT NULL,
 email VARCHAR(50)
 )";

if ($conn->query($sql) === TRUE) {
 echo "Table student created successfully";
} else {
 echo "Error creating table: " . $conn->error;
}
```

$conn->close();

?>

Screenshot of code



Then after executed code: -

After go to browser and search: -

localhost/adit(folder_name)filename.

Output: -

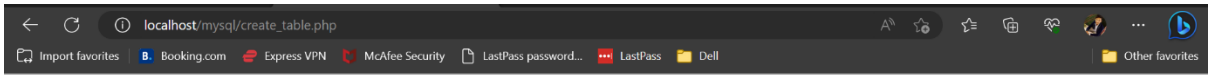
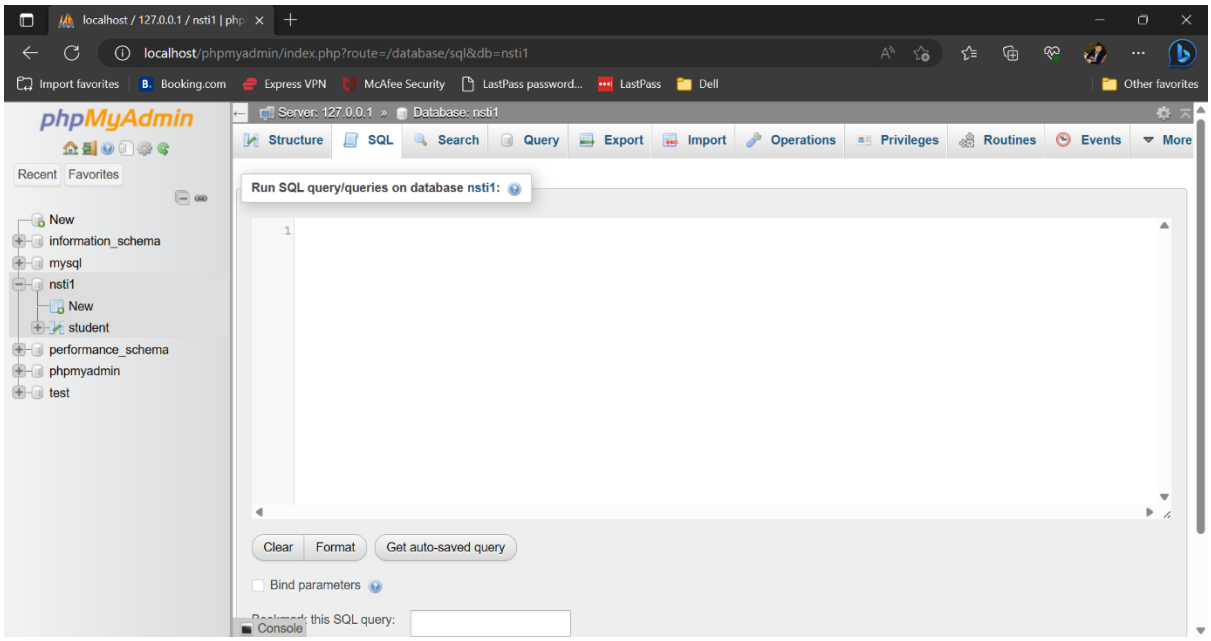


Table student created successfully

Then after go to MySQL Databases and see Table name



Successfully created Table name Student

4 **Aim: -** Import data into databases table from CSV file

Learning outcome: -Able to configure embedded databases with different web pages using XAMPP and MySQL.

Requirement of Hardware & Software: -

1 Working PC.

2 Windows Operating System.

3 Xampp server.

4 Notepad Code editor and any browser.

Procedure: -

Open your Xampp server and Start Apache and MySQL.

Then after open Notepad code editor.

Then after write MySQL code.

Code: -

<?php

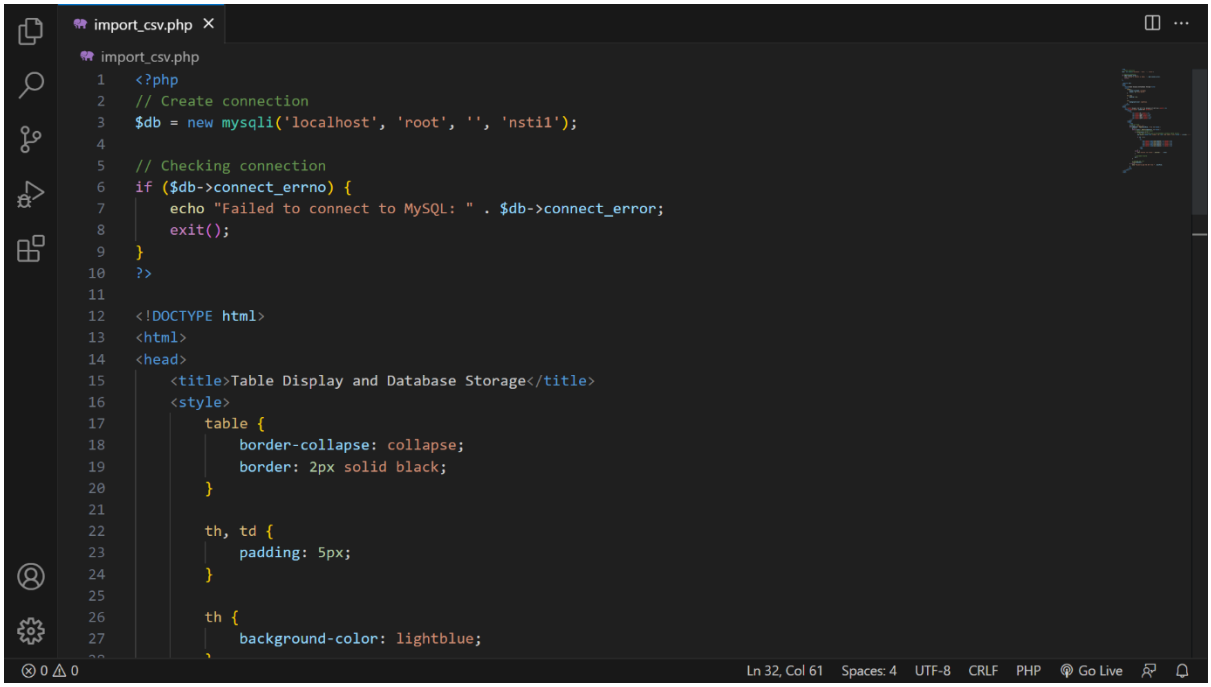
```
// Create connection
$db = new mysqli('localhost', 'root', '', 'nsti1');

// Checking connection
if ($db->connect_errno) {
    echo "Failed to connect to MySQL: " . $db->connect_error;
    exit();
}
?>

<!DOCTYPE html>
<html>
<head>
    <title>Table Display and Database Storage</title>
    <style>
        table {
            border-collapse: collapse;
            border: 2px solid black;
        }

        th, td {
            padding: 5px;
        }
```

```
        th {
            background-color: lightblue;
        }
    </style>
</head>
<body>
    <h1><center>Display the Data from Database of CSV file</center></h1>
    <table align="center" width="800" border="1">
        <thead>
            <tr>
                <th><center>ID</center></th>
                <th><center>NAME</center></th>
                <th><center>AGE</center></th>
                <th><center>EMAIL</center></th>
                <th><center>CITY</center></th>
            </tr>
        </thead>
        <tbody>
            <?php
            // Get csv file
            $csvFile = "detail.csv";
            if (($handle = fopen($csvFile, "r")) !== FALSE) {
                $n = 1;
```

```
            while (($row = fgetcsv($handle)) !== FALSE) {
                // Check if all columns exist
                if (count($row) >= 4) {
                    // SQL query to store data in the database (assuming table2 exists)
                    $db->query('INSERT INTO student (id, name, age, email, city) VALUES ("'.$row[0].'","'.$row[1].'","'.$row[2].'","'.$row[3].'","'.$row[4].'")');
                    if ($n > 1) {
                        ?>
                        <tr>
                            <td><center><?php echo $row[0]; ?></center></td>
                            <td><center><?php echo $row[1]; ?></center></td>
                            <td><center><?php echo $row[2]; ?></center></td>
                            <td><center><?php echo $row[3]; ?></center></td>
                            <td><center><?php echo $row[4]; ?></center></td>
                        </tr>
                        <?php
                    }
                } else {
                    echo "Invalid row format: ".implode(', ', $row);
```

```
            }
            // Increment records
            $n++;
        }
        // Closing the file
        fclose($handle);
    } else {
        echo "Failed to open the CSV file: " . $csvFile;
    }
    ?>
  </tbody>
 </table>
</body>
</html>
```

Screenshot of code



```
import_csv.php
import_csv.php
        th {
            background-color: lightblue;
        }
    </style>
</head>
<body>
    <h1><center>Display the Data from Database of CSV file</center></h1>
    <table align="center" width="800" border="1">
        <thead>
            <tr>
                <th><center>ID</center></th>
                <th><center>NAME</center></th>
                <th><center>AGE</center></th>
                <th><center>EMAIL</center></th>
                <th><center>CITY</center></th>
            </tr>
        </thead>
        <tbody>
            <?php
            // Get csv file
            $csvFile = "detail.csv";
            if (($handle = fopen($csvFile, "r")) !== FALSE) {
                $n = 1;
                while (($row = fgetcsv($handle)) !== FALSE) {
                    // Check if all columns exist
                    if (count($row) >= 4) {
                        // SQL query to store data in the database (assuming table2 exists)
```

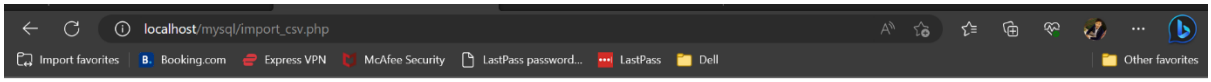
```
import_csv.php
import_csv.php
            if (($handle = fopen($csvFile, "r")) !== FALSE) {
                $n = 1;
                while (($row = fgetcsv($handle)) !== FALSE) {
                    // Check if all columns exist
                    if (count($row) >= 4) {
                        // SQL query to store data in the database (assuming table2 exists)
                        $db->query('INSERT INTO student (id, name, age, email, city) VALUES ("'.$row[0].'","'.
                        $row[1].'","'.$row[2].'","'.$row[3].'","'.$row[4].'")');
                        if ($n > 1) {
                            ?>
                            <tr>
                                <td><center><?php echo $row[0]; ?></center></td>
                                <td><center><?php echo $row[1]; ?></center></td>
                                <td><center><?php echo $row[2]; ?></center></td>
                                <td><center><?php echo $row[3]; ?></center></td>
                                <td><center><?php echo $row[4]; ?></center></td>
                            </tr>
                            <?php
                        }
                    } else {
                        echo "Invalid row format: ".implode(', ', $row);
                    }
                    // Increment records
                    $n++;
                }
                // Closing the file
                fclose($handle);
```

Then after executed code: -

After go to browser and search: -

localhost/adit(folder_name)filename.

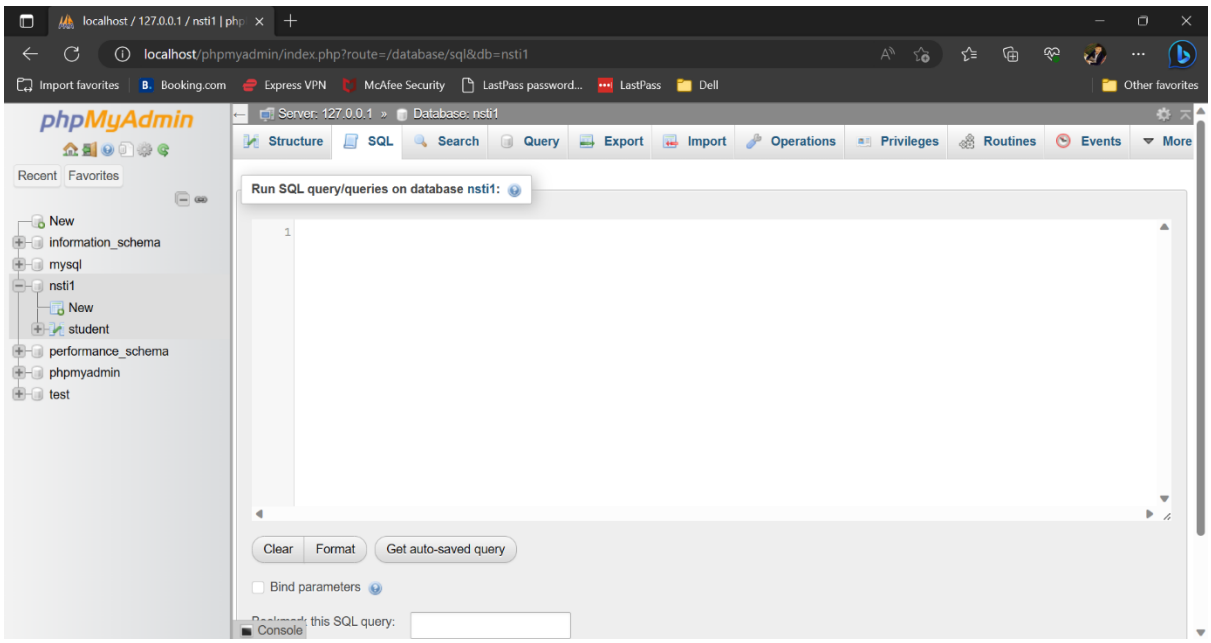
Output: -



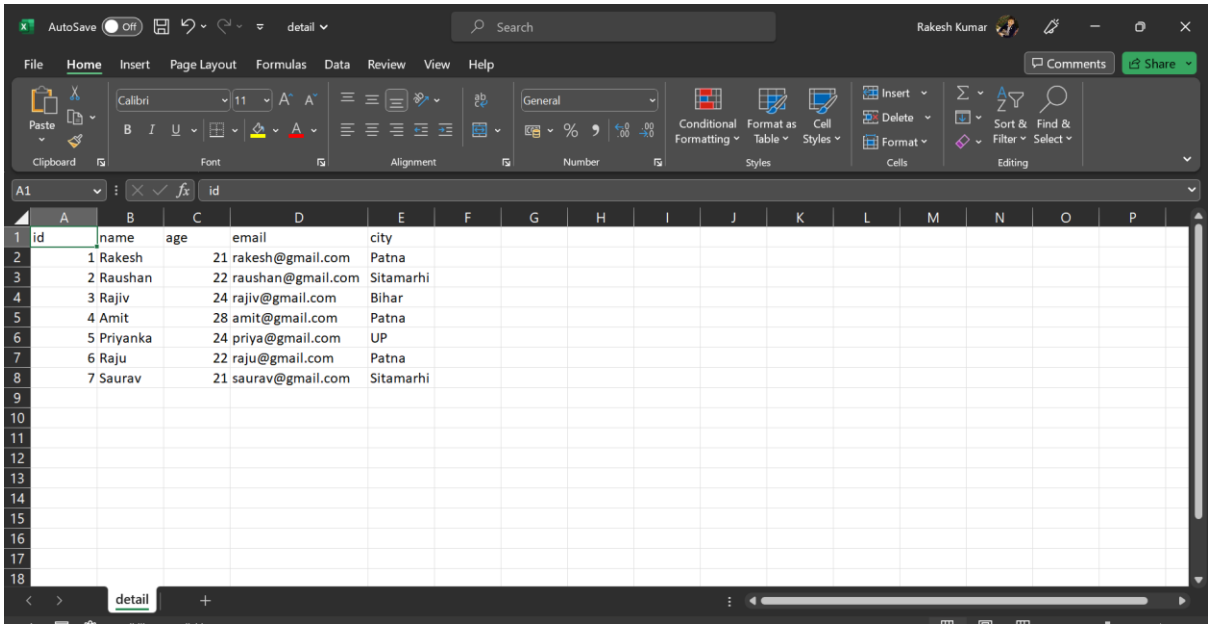
Display the Data from Database of CSV file

ID	NAME	AGE	EMAIL	CITY
1	Rakesh	21	rakesh@gmail.com	Patna
2	Raushan	22	raushan@gmail.com	Sitamarhi
3	Rajiv	24	rajiv@gmail.com	Bihar
4	Amit	28	amit@gmail.com	Patna
5	Priyanka	24	priya@gmail.com	UP
6	Raju	22	raju@gmail.com	Patna
7	Saurav	21	saurav@gmail.com	Sitamarhi

Then after go to MySQL Databases and see Data



And also see csv file



5 **Aim: -** Read data from database table, all data, filtered dada based on SQL queries

Learning outcome: -Able to configure embedded databases with different web pages using XAMPP and MySQL.

Requirement of Hardware & Software: -

1 Working PC.

2 Windows Operating System.

3 Xampp server.

4 Notepad Code editor and any browser.

Procedure: -

Open your Xampp server and Start Apache and MySQL.

Then after open Notepad code editor.

Then after write MySQL code.

Code: -

```
<?php
$link = mysqli_connect("localhost", "root", "", "nsti1");
// Check connection
if ($link === false) {
    die("ERROR: Could not connect. " . mysqli_connect_error());
}
// Attempt select query execution
$sql = "SELECT * FROM student WHERE age='22'";
if ($result = mysqli_query($link, $sql)) {
    if (mysqli_num_rows($result) > 0) {
        echo "<table border=2px>";
```

```
        echo "<tr>";
        echo "<th>id</th>";
        echo "<th>name</th>";
        echo "<th>age</th>";
        echo "<th>email</th>";
        echo "</tr>";
        while ($row = mysqli_fetch_array($result)) {
            echo "<tr>";
            echo "<td>" . $row['id'] . "</td>";
            echo "<td>" . $row['name'] . "</td>";
            echo "<td>" . $row['age'] . "</td>";
            echo "<td>" . $row['email'] . "</td>";
            echo "</tr>";
        }
        echo "</table>";
        // Close result set
        mysqli_free_result($result);
    } else {
        echo "No records matching your query were found.";
    }
} else {
    echo "ERROR: Could not able to execute $sql. " .
mysqli_error($link);
}
```

// Close connection

mysqli_close($link);

?>

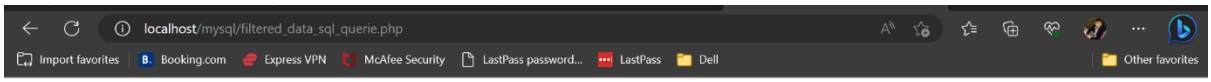
Screenshot of code

Then after executed code: -

After go to browser and search: -

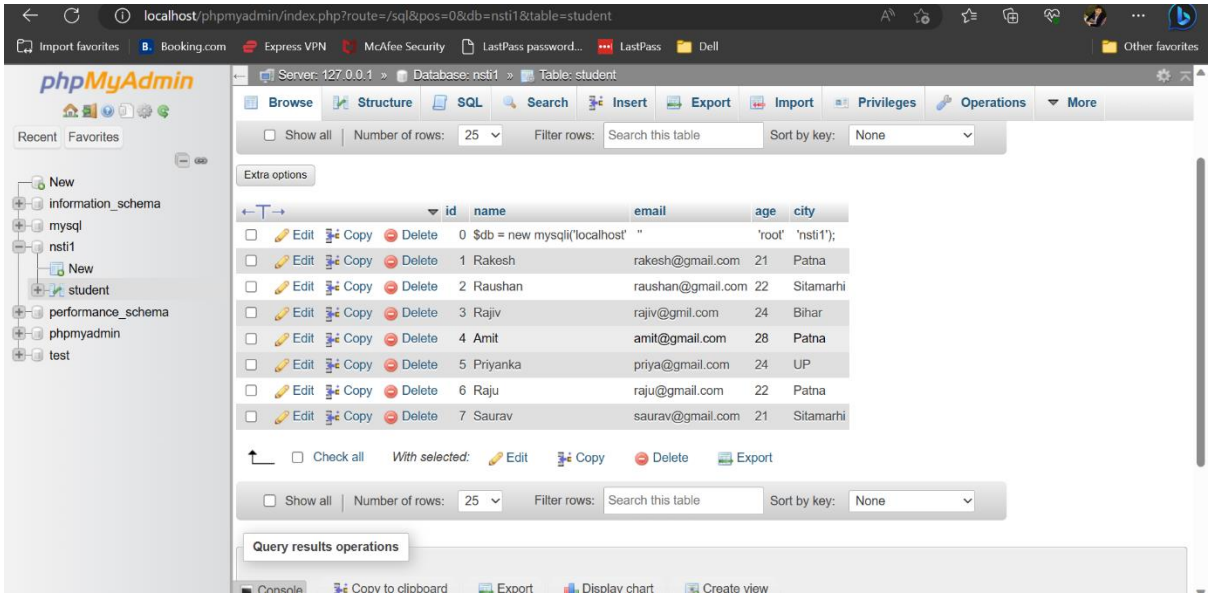
localhost/adit(folder_name)filename.

Output: -



id	name	age	email
2	Raushan	22	raushan@gmail.com
6	Raju	22	raju@gmail.com

Then after go to MySQL Databases and see Data



6 **Aim: -** Update single record, and multiple records based on criteria.

Learning outcome: -Able to configure embedded databases with different web pages using XAMPP and MySQL.

Requirement of Hardware & Software: -

1 Working PC.

2 Windows Operating System.

3 Xampp server.

4 Notepad Code editor and any browser.

Procedure: -

Open your Xampp server and Start Apache and MySQL.

Then after open Notepad code editor.

Then after write MySQL code.

Code: -

For Single data update

```
<?php
$dbhost = 'localhost';
$dbuser = 'root';
$dbpass = '';
$dbname = 'nsti1';

$connec = mysqli_connect($dbhost, $dbuser, $dbpass, $dbname);
if (!$connec) {
   die('Could not connect: ' . mysqli_connect_error());
}
```

```
$sql = "UPDATE student SET age = '35' WHERE id = '3'";
$result = mysqli_query($connec, $sql);
if (!$result) {
    die('Could not update data: ' . mysqli_error($connec));
}

echo "Data successfully updated...";

mysqli_close($connec);
?>
```

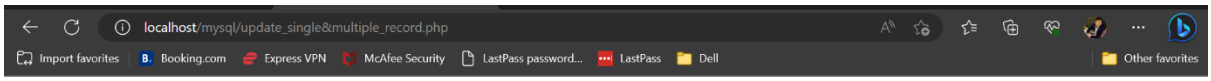
Screenshot of code

Then after executed code: -

After go to browser and search: -

localhost/adit(folder_name)filename.

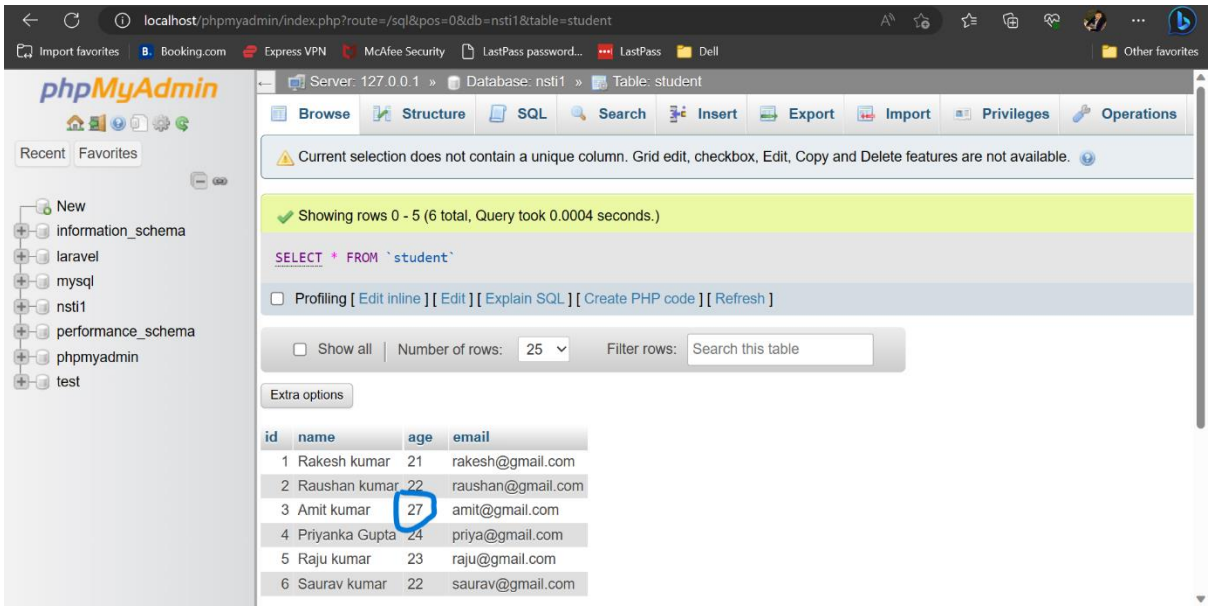
Output: -



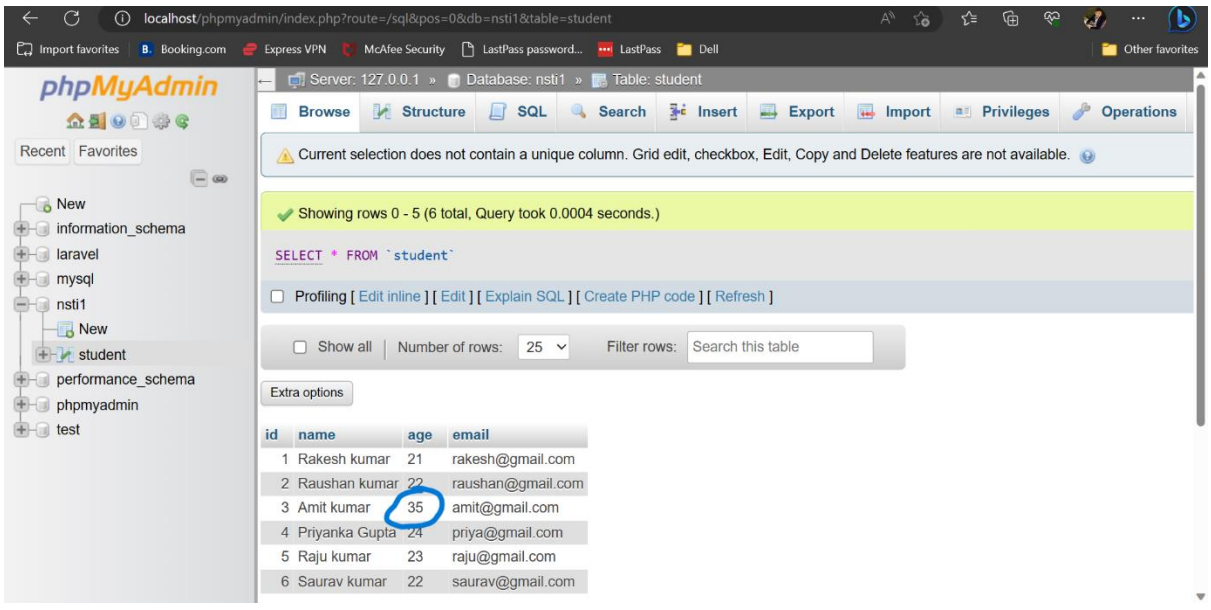
Data successfully updated...

Then after go to MySQL Databases and see Data

Screenshot of database Before Update



Screenshot of database After Update



Code: -

For Multiple data update

```
<?php
```

```
$dbhost = 'localhost';
$dbuser = 'root';
$dbpass = '';
$dbname = 'nsti1';

$connec = mysqli_connect($dbhost, $dbuser, $dbpass, $dbname);
if (!$connec) {
   die('Could not connect: ' . mysqli_connect_error());
}

$sql = "UPDATE student SET age = CASE id
WHEN 1 THEN 18
WHEN 3 THEN 27
WHEN 4 THEN 28
ELSE age
END,
email= CASE id
WHEN 2 THEN 'krsonaraj@gmail.com'

WHEN 4 THEN 'priyanka@gmail.com'
ELSE email
END
WHERE id IN (1, 2, 3, 4)";
$result = mysqli_query($connec, $sql);
```

```
if (!$result) {
    die('Could not update data: ' . mysqli_error($connec));
}

echo "Data successfully updated...";

mysqli_close($connec);
?>
```

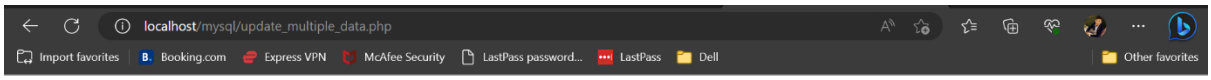
Screenshot of code

Then after executed code: -

After go to browser and search: -

localhost/adit(folder_name)filename.

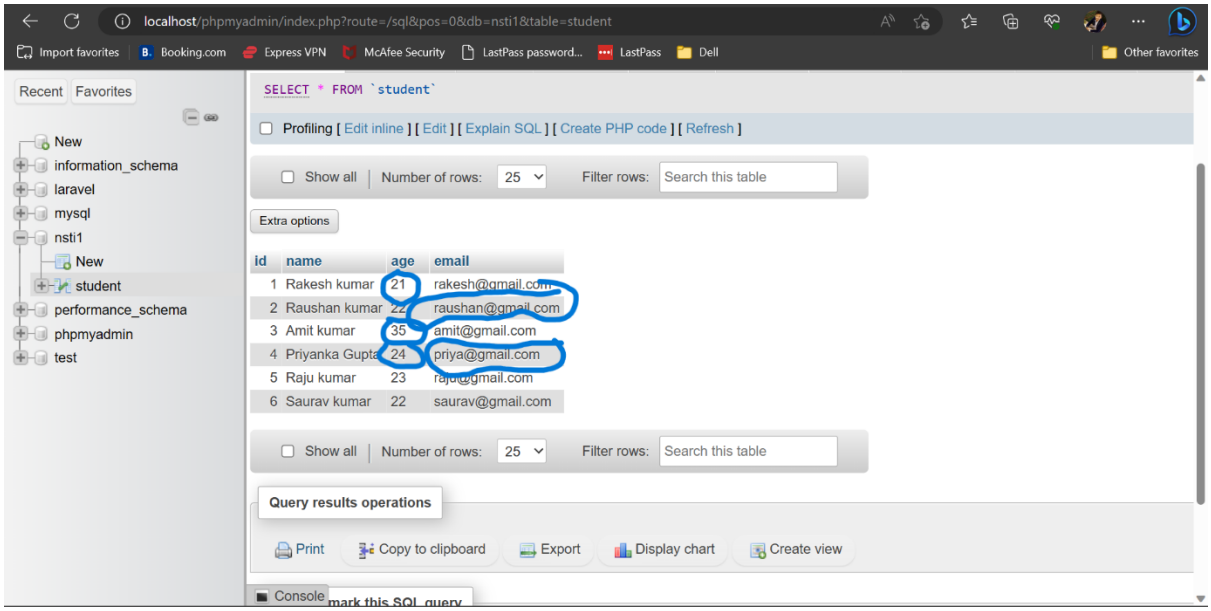
Output: -



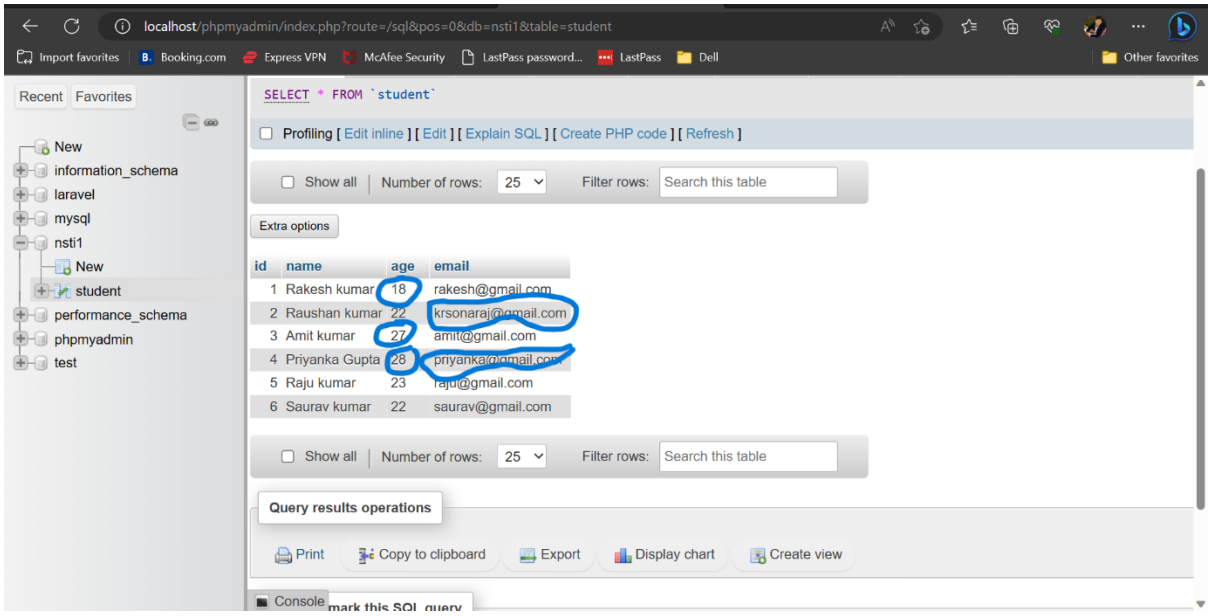
Data successfully updated...

Then after go to MySQL Databases and see Data

Screenshot of database Before Update



Screenshot of database After Update



7 **Aim: -** Delete selected records from table.

Learning outcome: -Able to configure embedded databases with different web pages using XAMPP and MySQL.

Requirement of Hardware & Software: -

1 Working PC.

2 Windows Operating System.

3 Xampp server.

4 Notepad Code editor and any browser.

Procedure: -

Open your Xampp server and Start Apache and MySQL.

Then after open Notepad code editor.

Then after write MySQL code.

Code: -

```
<?php
/* Attempt MySQL server connection. Assuming you are running MySQL server with default setting (user
'root' with no password) */
$link = mysqli_connect("localhost", "root", "", "nsti1");
// Check connection
if($link === false){
die("ERROR: Could not connect. " . mysqli_connect_error());
}

// Attempt delete query execution
$sql = "DELETE FROM student WHERE name='Raju kumar'";
if(mysqli_query($link, $sql)){
echo "Records were deleted successfully.";
```

```
} else{
echo "ERROR: Could not able to execute $sql. " . mysqli_error($link);
}
// Close connection
mysqli_close($link);
?>
```

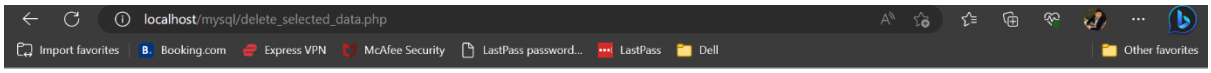
Screenshot of code

Then after executed code: -

After go to browser and search: -

localhost/adit(folder_name)filename.

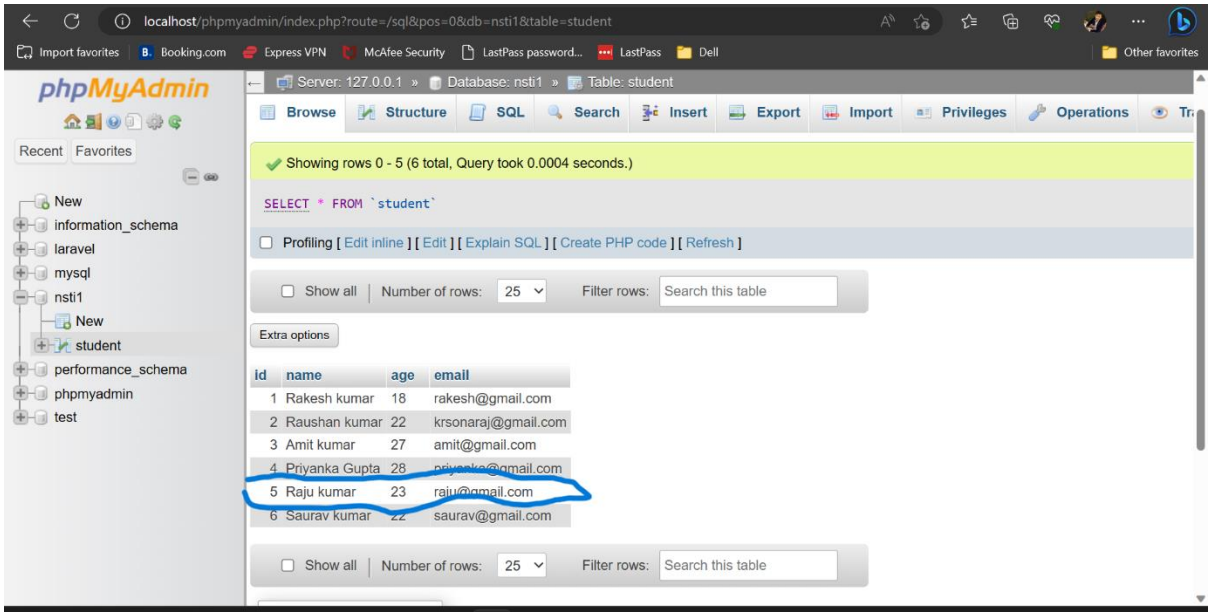
Output: -



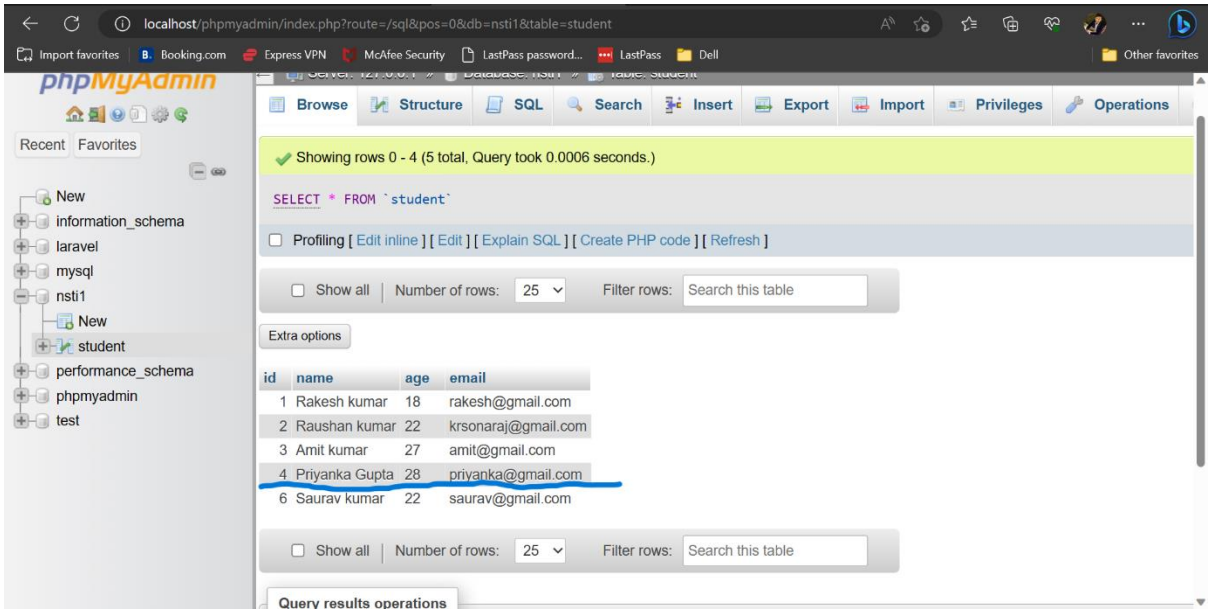
Records were deleted successfully.

Then after go to MySQL Databases and see Data

Screenshot of database Before Update



Screenshot of database After Update



9 **Aim: -** Perform transaction in database tables using commit and rollback operations

Learning outcome: -Able to configure embedded databases with different web pages using XAMPP and MySQL.

Requirement of Hardware & Software: -

1 Working PC.

2 Windows Operating System.

3 Xampp server.

4 Notepad Code editor and any browser.

Procedure: -

Open your Xampp server and Start Apache and MySQL.

Then after open Notepad code editor.

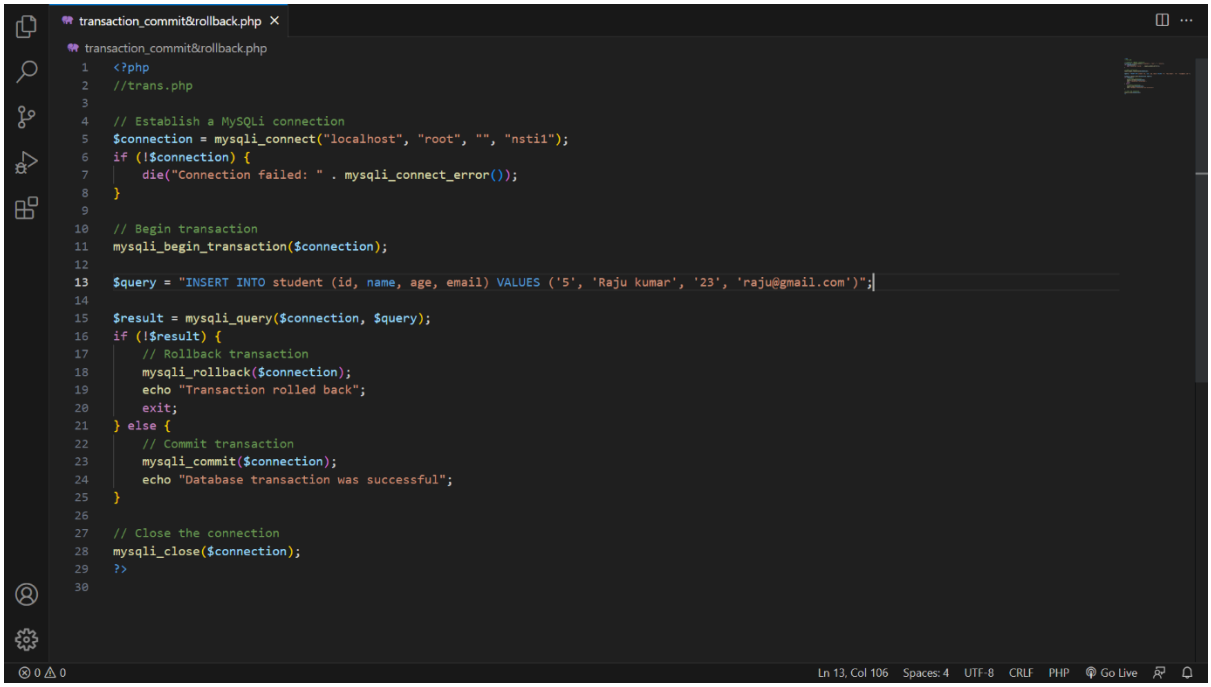
Then after write MySQL code.

Code: -

```php
<?php
//trans.php

// Establish a MySQLi connection
$connection = mysqli_connect("localhost", "root", "", "nsti1");
if (!$connection) {
   die("Connection failed: " . mysqli_connect_error());
}

// Begin transaction
mysqli_begin_transaction($connection);

$query = "INSERT INTO student (id, name, age, email) VALUES ('5',
'Raju kumar', '23', 'raju@gmail.com')";

$result = mysqli_query($connection, $query);
if (!$result) {
   // Rollback transaction
   mysqli_rollback($connection);
   echo "Transaction rolled back";
   exit;
} else {
   // Commit transaction
   mysqli_commit($connection);
```

```
    echo "Database transaction was successful";
}

// Close the connection
mysqli_close($connection);
?>
```

Screenshot of code

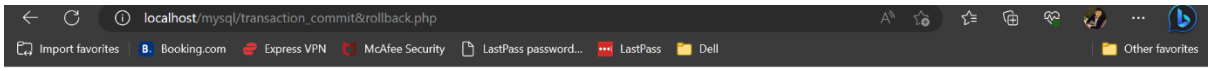


Then after executed code: -

After go to browser and search: -

localhost/adit(folder_name)filename.

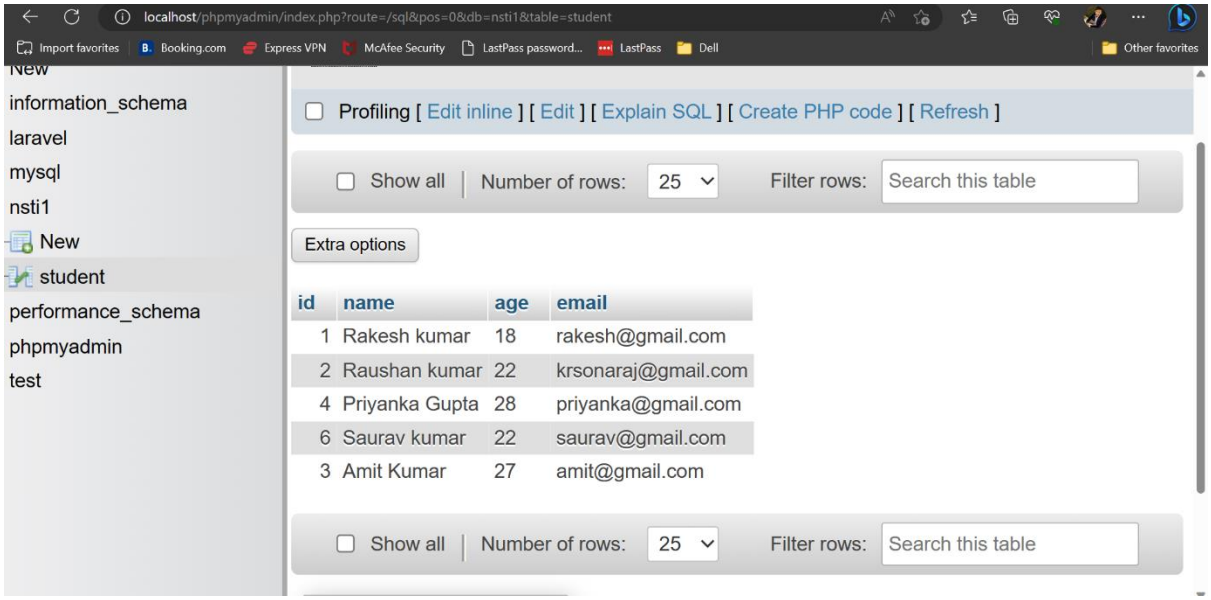
Output: -



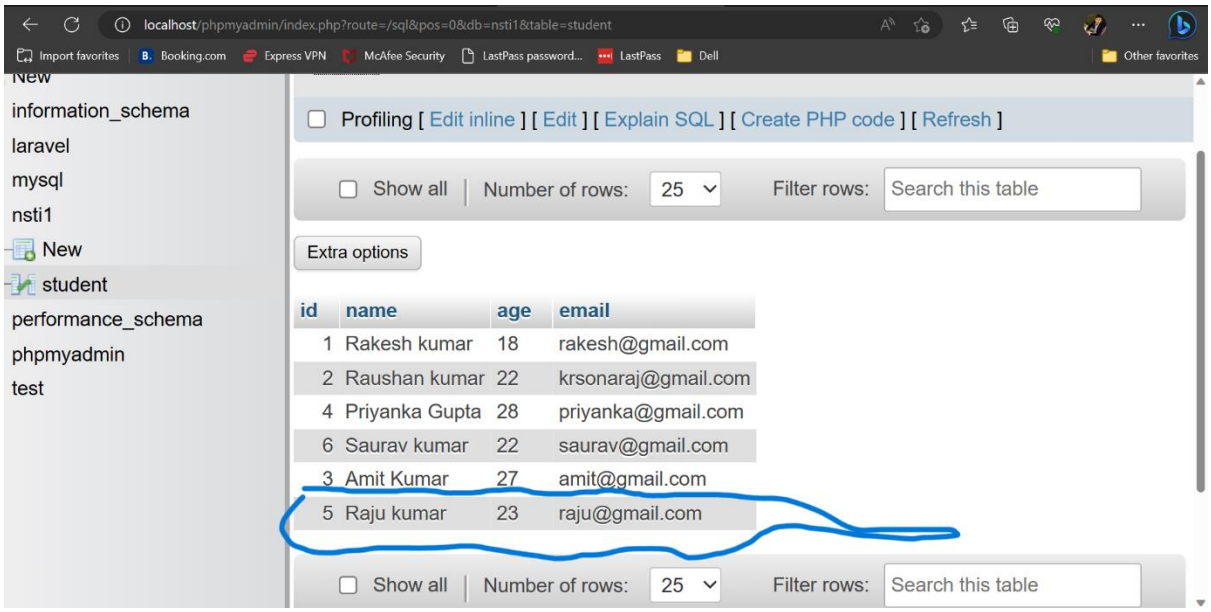
Database transaction was successful

Then after go to MySQL Databases and see Data

Screenshot of database Before Update



Screenshot of database After Update



10 **Aim: -** Demonstrate use of transaction control in relational databases

Learning outcome: -Able to configure embedded databases with different web pages using XAMPP and MySQL.

Requirement of Hardware & Software: -

1 Working PC.

2 Windows Operating System.

3 Xampp server.

4 Notepad Code editor and any browser.

Procedure: -

Open your Xampp server and Start Apache and MySQL.

Then after open Notepad code editor.

Then after write MySQL code.

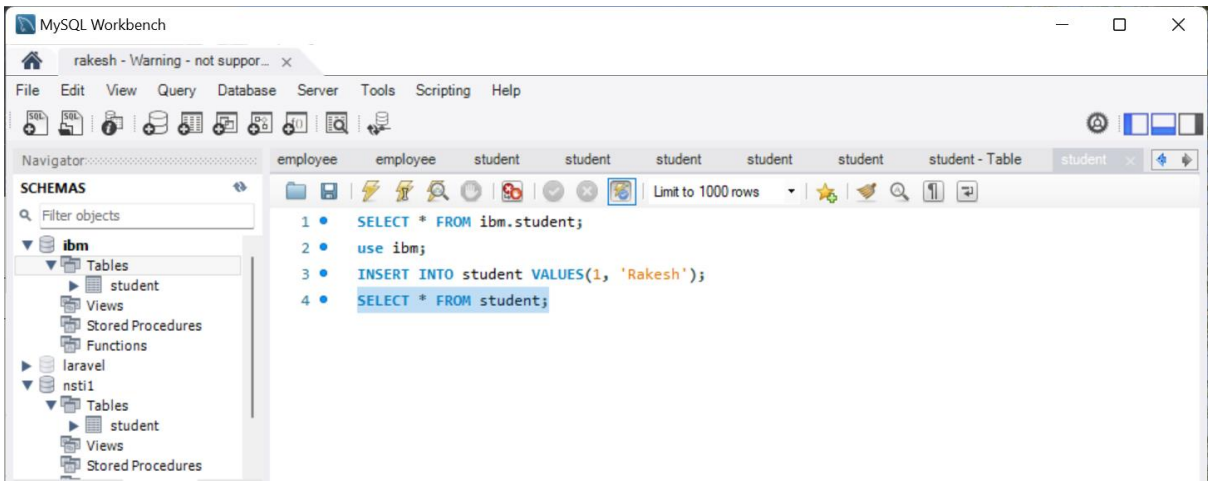
Code: -

```
Select *from ibm.student;
```

Use ibm;

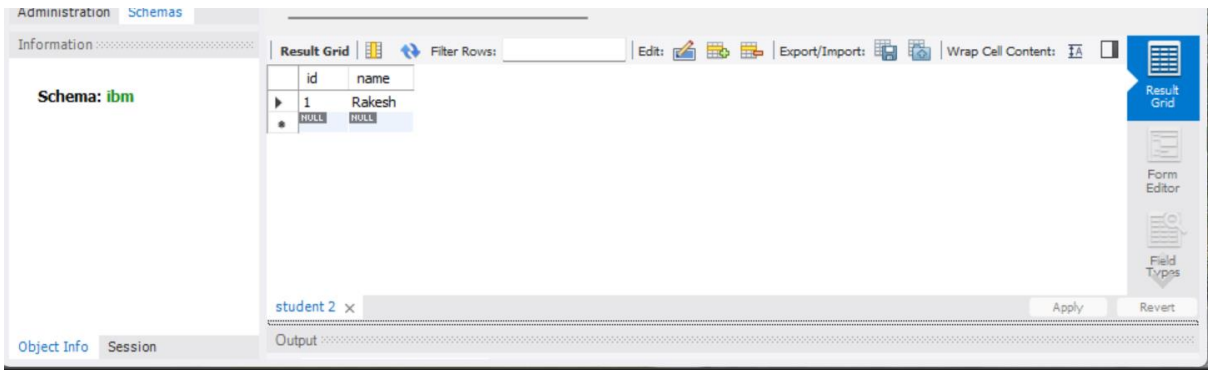
Insert into student values(1,’Rakesh’);

Select *from student;



Then after executed code:

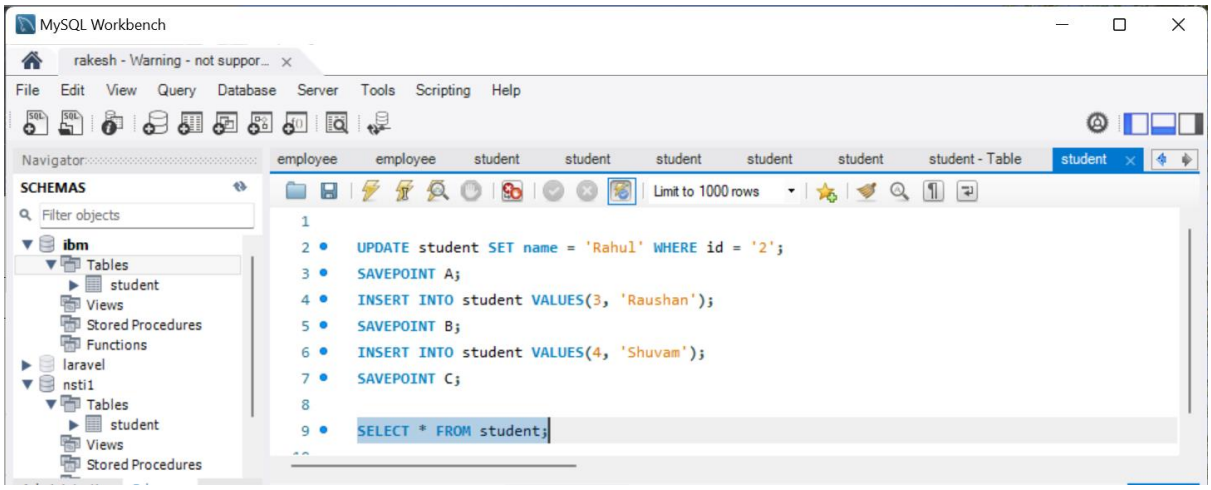
Output: -



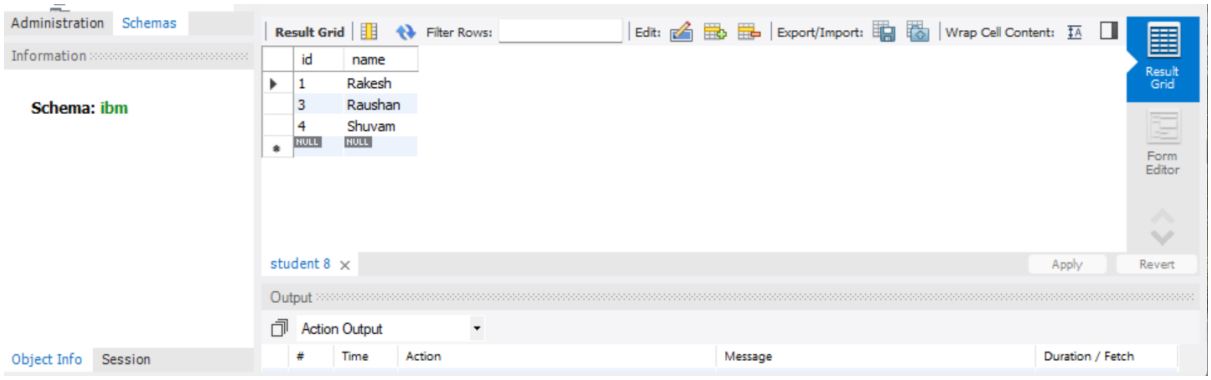
Code:

```
Update student Set name = ‘Rahul’ Where id =’2’;

Savepoint A;

Insert into student values(3, ‘Raushan’);

Savepoint B;

Insert into student values(4, ‘Shuvam’);

Savepoint B;


Select * From student;
```

Screenshot of code:



Output:


Administration
Schemas
Information
Schema: ibm
Object Info
Session
Result Grid
Filter Rows:
Edit:
Export/Import:
Wrap Cell Content:
id
name
1
Rakesh
3
Raushan
4
Shuvam
NULL
NULL
Result Grid
Form Editor
student 8
Apply
Revert
Output
Action Output
#
Time
Action
Message
Duration / Fetch