1. **Write PHP scripts that demonstrate fundamentals PHP Prime number**

```
<?php
 $count=0;
 $number=2;
 while($count<50){
   $div_count=0;
   for($i=1;$i<=$number;$i++){
      if(($number%$i)==0){
         $div_count++;
      }
   }
      if($div_count<3){
         echo $number.",";
         $count++;
      }
      $number++;
 }
?>
```

/********OUTPUT**********

2,3,5,7,11,13,17,19,23,29,31,37,41,43,47,53,59,61,67,71,73,79,83,89,97,101,103,107,109,113,127,131,137,139,149,151,157,163,167,173,179,181,191,193,197,199,211,223,227,229.

**********/

2. Write PHP scripts that demonstrate fundamentals PHP Factorial

```
<?php
$f=1;
$n=5;
for ($i=1;$i<=$n;$i++)
{
   $f=$f*$i;
}
echo"using for loop: " .  $f;
?>

/**********************************OUTPUT*************************************

  using for loop: 120

*****************************************************************************/


<?php
$i=1;
$f=1;
while($i<=$n){
   $f=$f*$i;
   $i++;
}
echo"using while loop: ". $f;
?>

/**********************************OUTPUT*************************************

   using while loop: 120

*****************************************************************************/
```

2. Write PHP scripts that demonstrate fundamentals PHP Number triangle

```
<?php
for($i=1;$i<=5;$i++){
   for($j=1;$j<=$i;$j++){
      echo $i. " ";
   }
echo "<br>";
}
?>
```

/*******************************OUTPUT*********************************

1
2 2
3 3 3
4 4 4 4
5 5 5 5 5

***/**

```
<?php
for($i=0;$i<=5;$i++){
   for($j=0;$j<=$i;$j++){
      echo"* ";
   }
echo "<br>";
}
?>
```

/*******************************OUTPUT*********************************

*
* *
* * *
* * * *
* * * * *
* * * * * *

***/**

4. Write PHP script that will display grade based on criteria given below using the marks obtained in Examination. a. Distinction (70 and above) b. First Class (60 - 69) c. Pass (40 - 59) d. Fail (below 40)

```
<?php
$phy=60;
$chem=60;
$math=60;
$total=$phy+$chem+$math;
$per=$total/3;
echo"Physics mark is $phy<br>";
echo"Chemistry mark is $chem<br>";
echo"Mathematics mark is $math<br>";
echo"Total is$total, Percentage is $per<br>";
if($per>=70)
{
        echo"Congratulation";
        echo"<br>You get Distinction";
}
elseif ($per>=60)
echo"First class";
elseif ($per>=40)
echo"Pass class";
else
echo"You are Fail";
?>
```

/********OUTPUT**********

Physics mark is 60
Chemistry mark is 60
Mathematics mark is 60
Total is180, Percentage is 60
First class

**********/

5. Write a PHP script to demonstrate different String functions.

```
<?php
// Defining a sample string
$string = "Hello, World!";
// 1. String Length
echo "String Length: " . strlen($string) . "<br>";
// 2. Word Count
echo "Word Count: " . str_word_count($string) . "<br>";
// 3. Reverse String
echo "Reversed String: " . strrev($string) . "<br>";
// 4. Find Position of a Word
echo "Position of 'World': " . strpos($string, "World") . "<br>";
// 5. Replace Text
echo "Replaced String: " . str_replace("World", "PHP", $string) . "<br>";
// 6. Convert to Uppercase
echo "Uppercase: " . strtoupper($string) . "<br>";
// 7. Convert to Lowercase
echo "Lowercase: " . strtolower($string) . "<br>";
// 8. Substring Extraction
echo "Substring (0-5): " . substr($string, 0, 5) . "<br>";
// 9. Trim String
$trimString = "   Hello PHP!   ";
echo "Trimmed String: '" . trim($trimString) . "'<br>";
// 10. Repeat String
echo "Repeated String: " . str_repeat("PHP ", 3) . "<br>";
// 11. Convert First Character to Uppercase
echo "ucfirst: " . ucfirst("hello world") . "<br>";
// 12. Convert First Character of Each Word to Uppercase
echo "ucwords: " . ucwords("hello world") . "<br>";
// 13. Count Specific Substring
echo "Substring Count: " . substr_count($string, "o") . "<br>";
// 14. Compare Strings
echo "String Comparison: " . strcmp("Hello", "hello") . "<br>";
// 15. Hash String (MD5)
echo "MD5 Hash: " . md5($string) . "<br>";
// 16. Hash String (SHA1)
echo "SHA1 Hash: " . sha1($string) . "<br>";
// 17. Escape Special Characters
echo "Escaped String: " . htmlspecialchars("<a href='test'>Test</a>") . "<br>";
// 18. Split String into Array
print_r(str_split($string));
?>
```

/**********OUTPUT**********

String Length: 13

Word Count: 2

Reversed String: !dlroW ,olleH

Position of 'World': 7

Replaced String: Hello, PHP!

Uppercase: HELLO, WORLD!

Lowercase: hello, world!

Substring (0-5): Hello

Trimmed String: 'Hello PHP!'

Repeated String: PHP PHP PHP

ucfirst: Hello world

ucwords: Hello World

Substring Count: 2

String Comparison: -1

MD5 Hash: 65a8e27d8879283831b664bd8b7f0ad4

SHA1 Hash: 0a0a9f2a6772942557ab5355d76af442f8f65e01

Escaped String: Test

Array ([0] => H [1] => e [2] => l [3] => l [4] => o [5] => , [6] => [7] => W [8] => o [9] => r [10] => l [11] => d [12] => !)

**********/

6. Write a PHP script to Demonstrate OOPS Concept in PHP.

6.1 Class and Object:

```
<?php
class Student
{
        var $rollno;
        var $name;
       var $marks;
        function get_stud_info()
        {
                $this->rollno=1010;
                $this->name="Vishal";
                $this->marks=89.99;
        }
        function disp_stud_info()
        {
                echo "Student Roll No:".$this->rollno;
                echo "Student Name :".$this->name;
               echo "Student Marks :".$this->marks;
         }
}
$s1=new Student();
$s1->get_stud_info();
$s1->disp_stud_info();
?>
```

/********OUTPUT**********

```
Student Roll No:1010
Student Name :VishalStudent
Marks :89.99
```

**********/

6.2 constructor destructor

```
<?php
class Example {
    var $message;
    // Constructor
    public function __construct($msg)
   {
        $this->message = $msg;
        echo "Constructor called: Object created with message - $this->message<br>";
    }
    // Method to display message
    public function displayMessage()
   {
        echo "Message: $this->message<br>";
    }
    // Destructor
    public function __destruct()
    {
        echo "Destructor called: Cleaning up resources.<br>";
    }
}
// Creating an object of the class
$obj = new Example("Hello, PHP!");
$obj->displayMessage();
?>
```

/********OUTPUT**********

Constructor called: Object created with message - Hello, PHP!
Message: Hello, PHP!
Destructor called: Cleaning up resources.

**********/

6.3 Inheritance:

```
<?php
// Parent class
class Animal
 {
   public function eat()
   {
      echo "Animal is eating<br>"."<br>";
   }
}
// Child class Dog inheriting from Animal
class Dog extends Animal
{
   public function bark()
   {
      echo "Dog is barking<br>"."<br>";
   }
}
// Child class Cat inheriting from Animal
class Cat extends Animal
{
   public function meow()
  {
      echo "Cat is meowing<br>"."<br>";
   }
}
// Creating objects of child classes
$dog = new Dog();
$dog->eat();  // Inherited from Animal
$dog->bark(); // Defined in Dog
$cat = new Cat();
$cat->eat();  // Inherited from Animal
$cat->meow(); // Defined in Cat
?>
```

/********OUTPUT**********

Animal is eating
Dog is barking
Animal is eating
Cat is meowing

**********/**

6.4 Method Overriding:

```
<?php
 class Base_Class {
   function display()
   {
   echo "display method of Base class"."<br>";
   }
   }
   class Derived_Class extends Base_Class
   {
   function display()
   {
   echo "display method of derived class"."<br>";
   Base_Class::display();//name of base class
   }
   }
   $d1=new Derived_Class();
   $d1->display();
  ?>
```

/*******OUTPUT*********

display method of derived class
display method of Base class

**********/**

6.5 Interface

```
 <?php
// Define the Bank interface
interface Bank {
    public function deposit($amount);
}
// Implementing the interface
class Account implements Bank {
    private $balance = 0;

  // Method to deposit money
    public function deposit($amount) {
        $this->balance += $amount;
        echo "Deposited: $amount<br>";
    }

    // Method to check balance
    public function getBalance() {
        return $this->balance;
    }
}
// Creating an object of Account
$account = new Account();
$account->deposit(500);
echo "Balance: " . $account->getBalance();  // Output: 500
?>
```

/********OUTPUT**********

Deposited: 500
Balance: 500

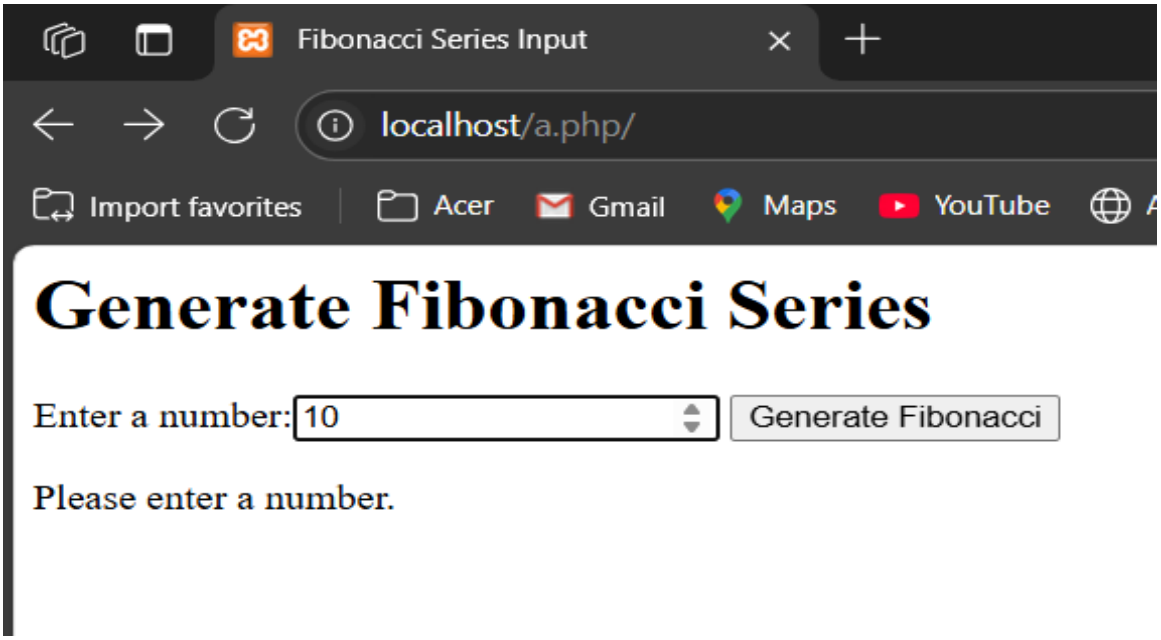
**********/

7. Write a PHP script to demonstrate Form Data Handling using Get and Post methods.

1.GET:

```
<html>
<head>
   <title>Fibonacci Series Input</title>
</head>
<body>
   <h1>Generate Fibonacci Series</h1>
   <form action="fibonacci.php" method="GET">
     Enter a number:<input type="number" id="number" name="number" required>
      <input type="submit" value="Generate Fibonacci">
   </form>
   <?php
// Check if 'number' is passed via GET
if (isset($_GET['number'])) {
   $n = $_GET['number'];
   // Simple Fibonacci series generator
   $a = 0;
   $b = 1;
   // Print the first Fibonacci number
   echo "<h1>Fibonacci Series:</h1>";
   echo $a . ", " . $b;
   // Generate the rest of the Fibonacci series
   for ($i = 2; $i < $n; $i++) {
      $c = $a + $b;
      echo ", " . $c;
      $a = $b;
      $b = $c;
   }
} else {
   echo "<p>Please enter a number.</p>";
}
?>
</body>
</html>
```

/**********OUTPUT**********


Fibonacci Series Input
localhost/a.php/
Import favorites
Acer
Gmail
Maps
YouTube
Generate Fibonacci Series
Enter a number: 10
Generate Fibonacci
Please enter a number.

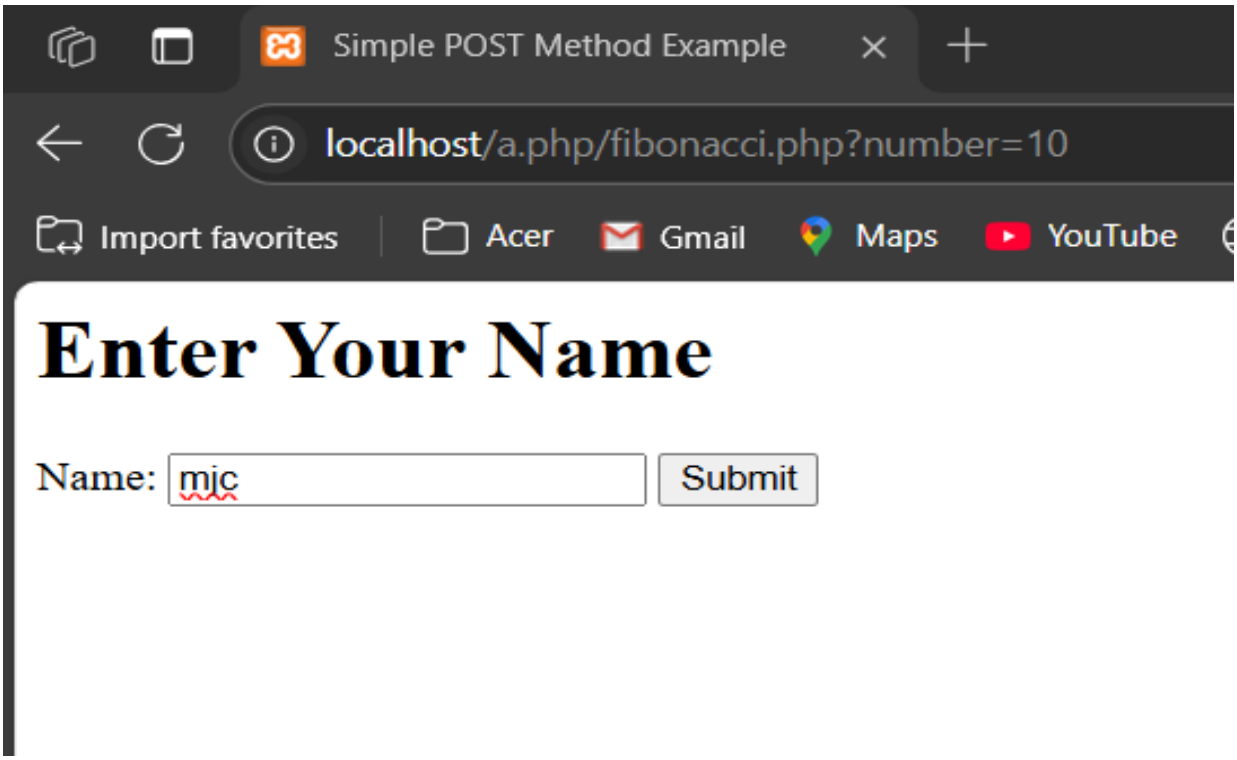

Fibonacci Series Input
localhost/a.php/fibonacci.php?number=10
Import favorites
Acer
Gmail
Maps
YouTube
Generate Fibonacci Series
Enter a number:
Generate Fibonacci
Fibonacci Series:
0, 1, 1, 2, 3, 5, 8, 13, 21, 34

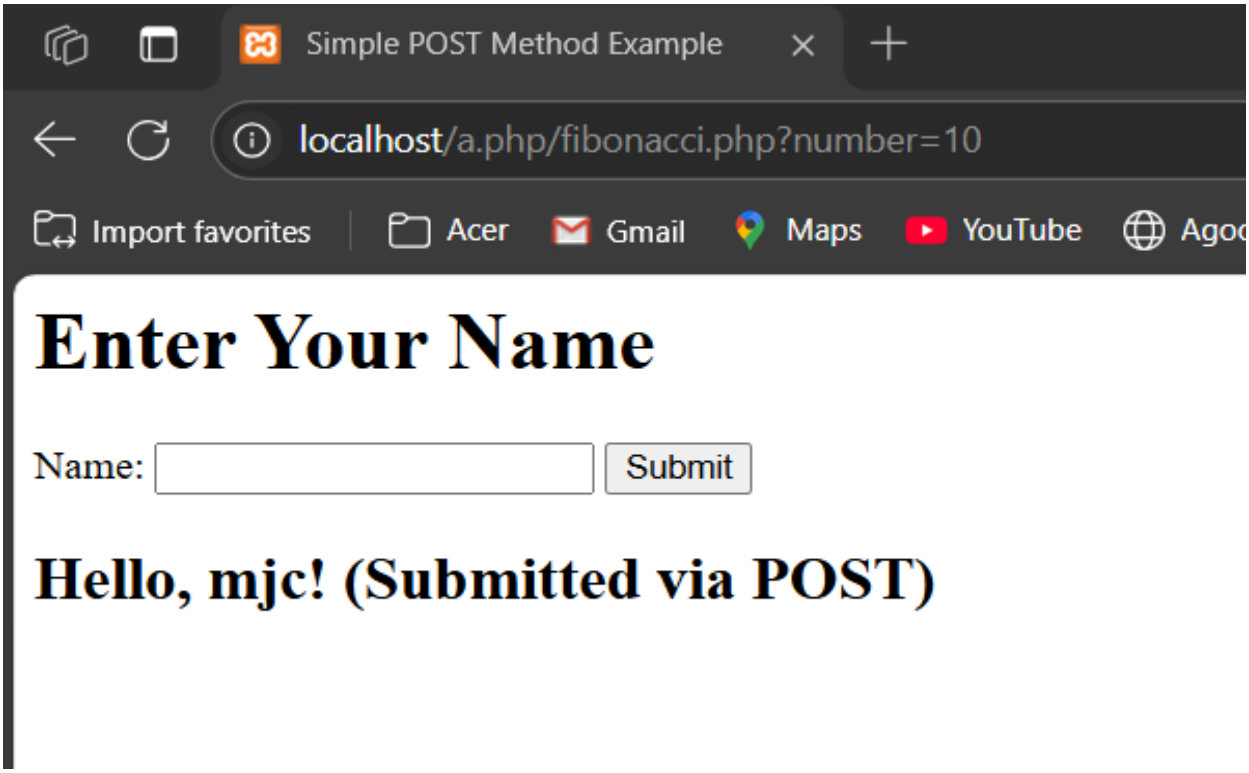
**********/

2.POST:

```
< html>
<head>
   <title>Simple POST Method Example</title>
</head>
<body>
   <h1>Enter Your Name</h1>
   <!-- Form that uses POST method to submit data -->
   <form action="" method="POST">
      <label for="name">Name:</label>
      <input type="text" name="name" required>
      <input type="submit" value="Submit">
   </form>
   <!-- PHP code to check if the form is submitted -->
   <?php
   if (isset($_POST['name'])) {
      $name = $_POST['name']; // Sanitize the input to prevent XSS
      echo "<h2>Hello, $name! (Submitted via POST)</h2>";
   }
   ?>
</body>
</html>
```

/********OUTPUT**********



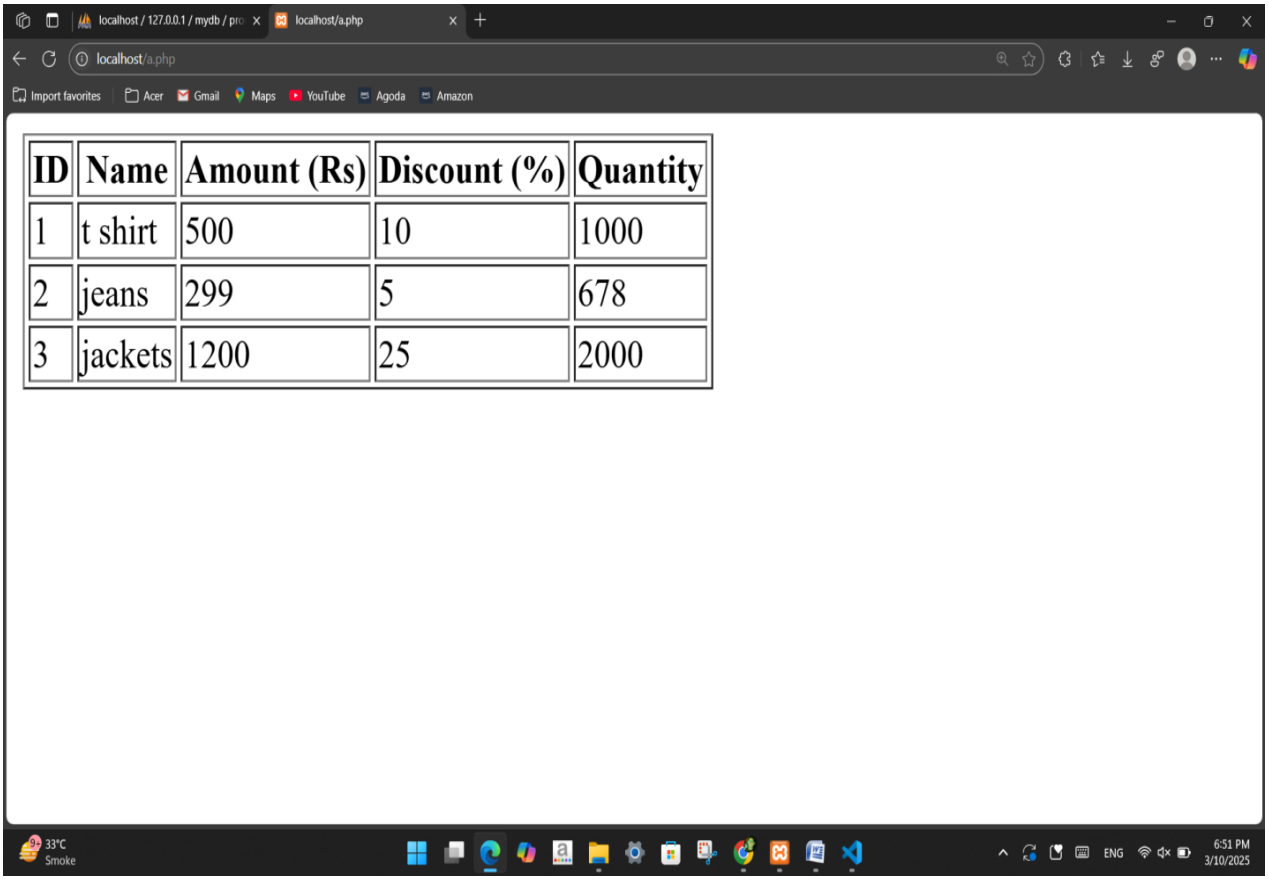

Simple POST Method Example
localhost/a.php/fibonacci.php?number=10
Import favorites
Acer
Gmail
Maps
YouTube
Enter Your Name
Name:
Submit
Hello, mjc! (Submitted via POST)

**********/

8. Design a database in MYSQL. Create table in database. Store, Update, Delete and Retrieve data from the table. Display the data from the table.

```
<?php
$host="localhost";
$user="root";
$password="";
$database="mydb";
$conn=new mysqli($host,$user,$password,$database);

//check connection
if($conn->connect_error)
{
   echo"connection failed";
}

//retrive data
$sql = "SELECT * FROM products";
$result = $conn->query($sql);

if ($result->num_rows > 0) {
   echo "<table border='1'>";
   echo "<tr>
   <th>ID</th>
   <th>Name</th>
   <th>Amount (Rs)</th>
   <th>Discount (%)</th>
   <th>Quantity</th>
  </tr>";

   while ($row = $result->fetch_assoc()) {
      echo "<tr>";
      echo "<td>" . $row["id"] . "</td>";
      echo "<td>" . $row["name"] . "</td>";
      echo "<td>" . $row["amount"] . "</td>";
      echo "<td>" .$row["discount"] . "</td>";
      echo "<td>" . $row["quantity"] . "</td>";
      echo "</tr>";
   }
   echo "</table>";
}

else {
   echo "No records found.";
}
   ?>
```

/**********OUTPUT**********



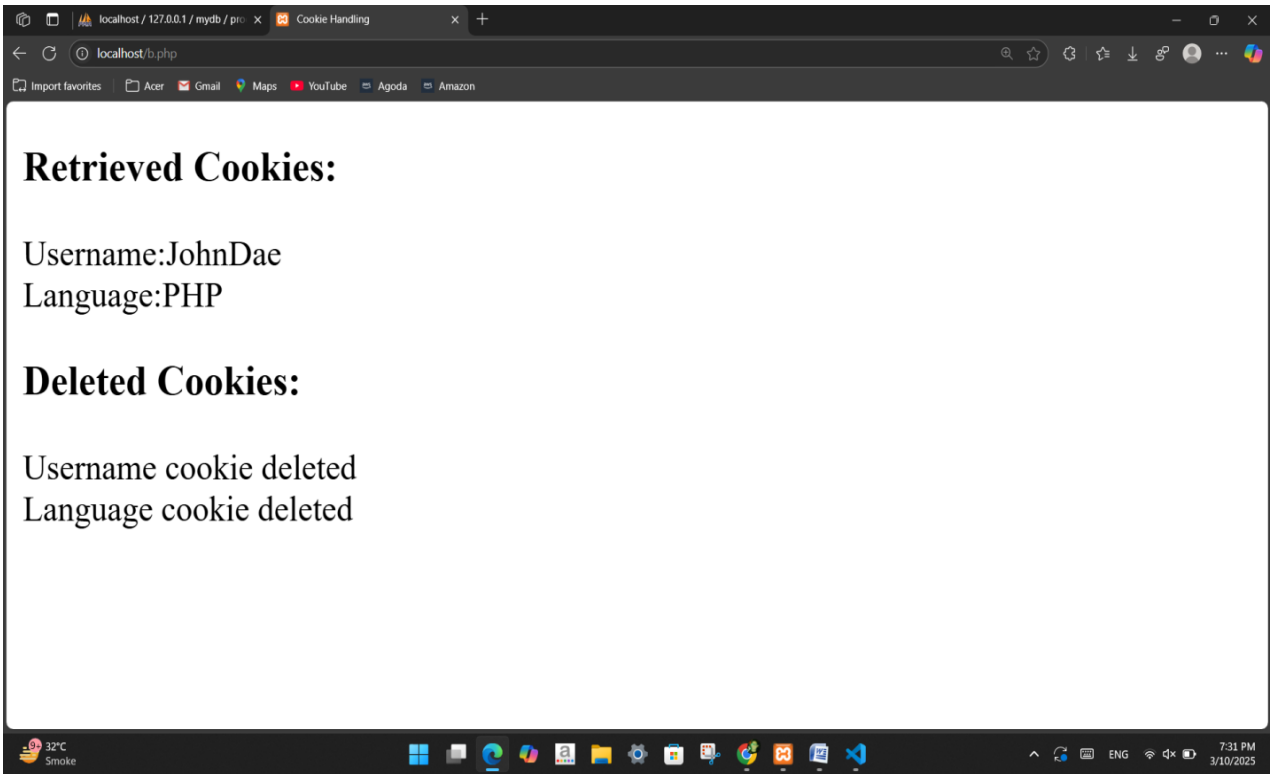
ID	Name	Amount (Rs)	Discount (%)	Quantity
1	t shirt	500	10	1000
2	jeans	299	5	678
3	jackets	1200	25	2000

**********/

9. Write a PHP script to store, retrieve and delete cookies on your local machine.

```
<?php
//Store cookies
setcookie("username", "JohnDae", time()+ (86400*30), "/"); // Conkie fin 30 days
setcookie("language", "PHP", time() + (86400 * 30), "/");

// Retrieve cookies
echo "<h3>Retrieved Cookies:</h3>";
if(isset($_COOKIE["username"]))
{
        echo "Username:". $_COOKIE["username"]."<br>";
}
else
{
        echo "Username cookie not set. <br>";
}

if(isset($_COOKIE["language"]))
{
        echo "Language:".$_COOKIE["language"]."<br>";
}
 else
{
        echo "Language cookie not set". "<br>";
}

//Delete cookies
echo "<h3>Deleted Cookies:</h3>";
if(isset($_COOKIE["username"]))
{
        setcookie("username","", time()-3600, "/"); // Set cookie expiration time to past
        echo "Username cookie deleted"."<br>";
}
if(isset($_COOKIE["language"]))
{
        setcookie("language", "", time()-3600,"/");
        echo "Language cookie deleted"."<br>";
}

?>
```

/**********OUTPUT**********

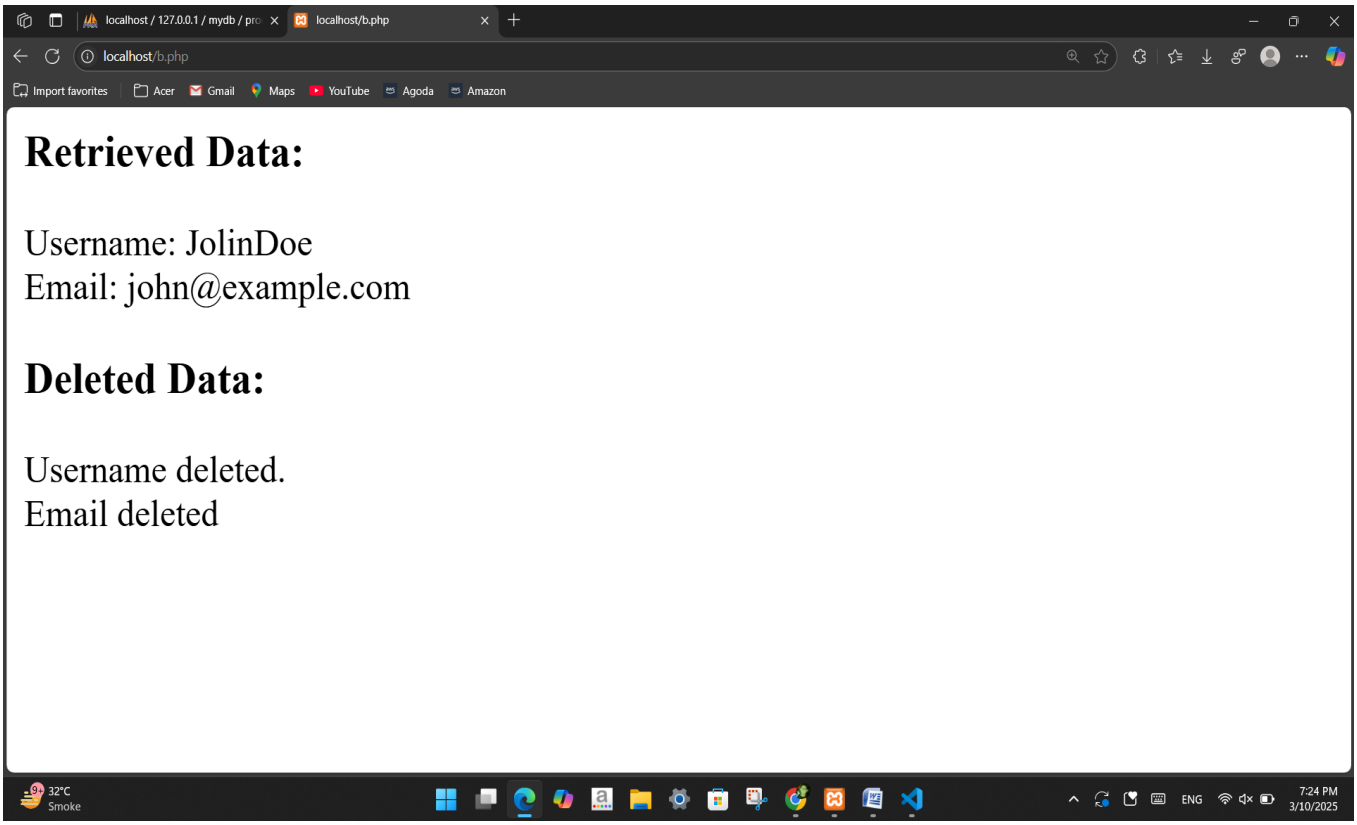

localhost / 127.0.0.1 / mydb / pro
Cookie Handling
localhost/b.php
Import favorites
Acer
Gmail
Maps
YouTube
Agoda
Amazon
Retrieved Cookies:
Username:JohnDae
Language:PHP
Deleted Cookies:
Username cookie deleted
Language cookie deleted
32°C
Smoke
ENG
7:31 PM
3/10/2025

**********/

10. Write a PHP script to store, retrieve and delete data using session variables.

```
<?php

// Start the session
session_start();

// Store data in session variables
$_SESSION["username"] = "JolinDoe";
$_SESSION["email"] = "john@example.com";

//Retrieve data from session variables
echo "<h3>Retrieved Data:</h3>";

if(isset($_SESSION["username"]))
{
        echo "Username: ".$_SESSION["username"], "<br>";
}
 else
{
        echo "Username not set<br>";
}
if(isset($_SESSION["email"]))
{
        echo "Email: ".$_SESSION["email"]."<br>";
}
else
{
        echo "Email not set.<br>";
}

//Delete data from session variables
echo "<h3>Deleted Data:</h3>";
if(isset($_SESSION["username"]))
 {
        unset($_SESSION["username"]);
        echo "Username deleted. <br>";
}
if(isset($_SESSION["email"])) {
unset($_SESSION["email"]);
echo "Email deleted <br>";
}
// End the session
session_destroy();
?>
```

/**********OUTPUT**********


localhost / 127.0.0.1 / mydb / pro
localhost/b.php
localhost/b.php
Import favorites
Acer
Gmail
Maps
YouTube
Agoda
Amazon
Retrieved Data:
Username: JolinDoe
Email: john@example.com
Deleted Data:
Username deleted.
Email deleted
32°C
Smoke
ENG
7:24 PM
3/10/2025

**********/