Name: Himanshu
Roll no: 30
Section: B1
Course: BCA

Q16: Create a Digital Clock using HTML, CSS and Java Script.

CODE:

HTML :

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width,
initialscale=1.0">
  <title>Document</title>
  <link rel="stylesheet" href="style.css">
</head>
<body>

  <div class="container">
    <div class="clock" id="clock"></div>
  </div>

  <script src="clock.js"></script>
</body>
</html>
```

CSS :

```
body{    height: 100vh;
width: 100vw ;
display: flex ;    align-
items: center;    justify-
content: center;
}

.container{    width:
500px ;    display: flex;
border: 2px solid black ;
border-radius: 30px;
margin: 0 auto ;
}

.clock{    color:
black ;    margin :
0 auto ;    font-
size: 80px ;
}
```

JS :

```
function updateTime(){
 // getting time ;    let time =
new Date() ;      let hour =
time.getHours() ;    let min =
time.getMinutes() ;    let sec =
time.getSeconds() ;
   let meridian = hour>=12? "PM" : "AM" ;

 //setting time according to 12hour clock ;
if(hour>=12){       if(hour == 12){
hour = 0 ;       }else if(hour > 12){
         hour = hour-12 ;
      }
   }
```

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```
 // fixing glitch      hour = hour<10?
'0'+ hour : hour ;
```

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```
   min = min<10? '0'+ min : min ;
   sec = sec<10? '0'+ sec : sec ;

 // updating time ;
   var current_time = `${hour}:${min}:${sec} ${meridian}` ;
   console.log(current_time);

 //showing time on the webpage ;
   var clock = document.querySelector("#clock") ;
clock.innerHTML = current_time ;
}

// updating time everySecond. setInterval(updateTime,1000)
;
```

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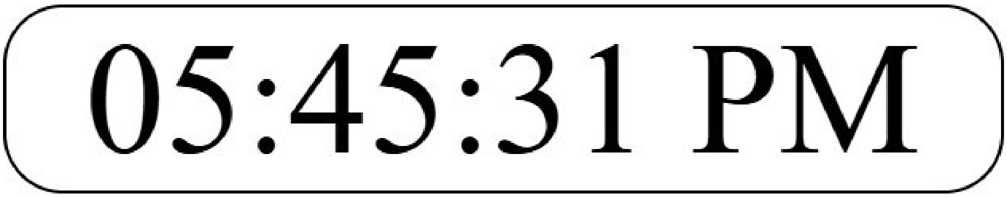
OUTPUT – 16 :



```
05:45:31 PM
```

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Q17: Write a PHP program to find a factorial of a number.

CODE:

HTML :

```
<html>
   <head>
      <title>Factorial Calculation</title>
   </head>
   <body>
      <form method="post">
Enter a number:
         <br>
         <input type="number" name="number" id="number"
required>
         <input type="submit" name="submit" value="Submit">
      </form>
      <?php
         if ($_SERVER['REQUEST_METHOD'] == 'POST') {
            $fact = 1;
            $number = $_POST['number'];              if
(is_numeric($number) && $number >= 0) {
for ($i = 1; $i <= $number; $i++) {
                  $fact *= $i;
               }
               echo "<p>Factorial of $number is $fact</p>";
            }
         }
      ?>
   </body>
</html>
```

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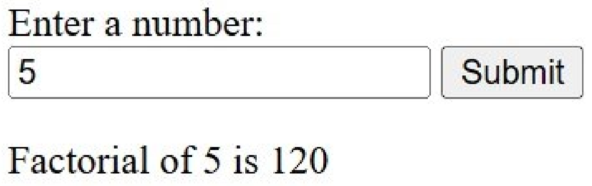
OUTPUT - 17 :



Enter a number:

5

Factorial of 5 is 120

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Q18: Write PHP script to swap two values by call by values and call by reference .Take input from user using form .

CODE:

HTML :

```
<!DOCTYPE html>
<html>
   <head>
      <title>Swap Numbers</title>
   </head>
   <body>
      <form method="post">
         <label for="n1">Enter first number:</label><br>
         <input type="number" name="n1" id="n1" required><br>

         <label for="n2">Enter second number:</label><br>
         <input type="number" name="n2" id="n2" required><br><br>

         <input type="submit" value="Swap Numbers">
      </form>
      <?php
         // Check if form is submitted
         if ($_SERVER['REQUEST_METHOD'] === 'POST' &&
isset($_POST['n1'], $_POST['n2'])) {
            $n1 = htmlspecialchars($_POST['n1']);
            $n2 = htmlspecialchars($_POST['n2']);

            // Validate inputs
            if (!is_numeric($n1) || !is_numeric($n2)) {
               echo "<p>Please enter valid numbers.</p>";
               return;
            }
```

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```
            function swap1($n1, $n2) {
               echo "<p>Original values: n1 = $n1, n2 = $n2</p>";
               $temp = $n1;
               $n1 = $n2;
               $n2 = $temp;
               echo "<p>After swap (call by value): n1 = $n1, n2 =
$n2</p>";
            }
            function swap2(&$n1, &$n2) {
               echo "<p>Original values: n1 = $n1, n2 = $n2</p>";
               $temp = $n1;
               $n1 = $n2;
               $n2 = $temp;
               echo "<p>After swap (call by reference): n1 = $n1, n2 =
$n2</p>";
            }
            // Perform swaps
            swap1($n1, $n2);
            echo "<hr>";
            swap2($n1, $n2);
            echo "<hr>";
            echo "<p>Final values after both swaps: n1 = $n1, n2 =
$n2</p>";
         }
      ?>
   </body>
</html>
```

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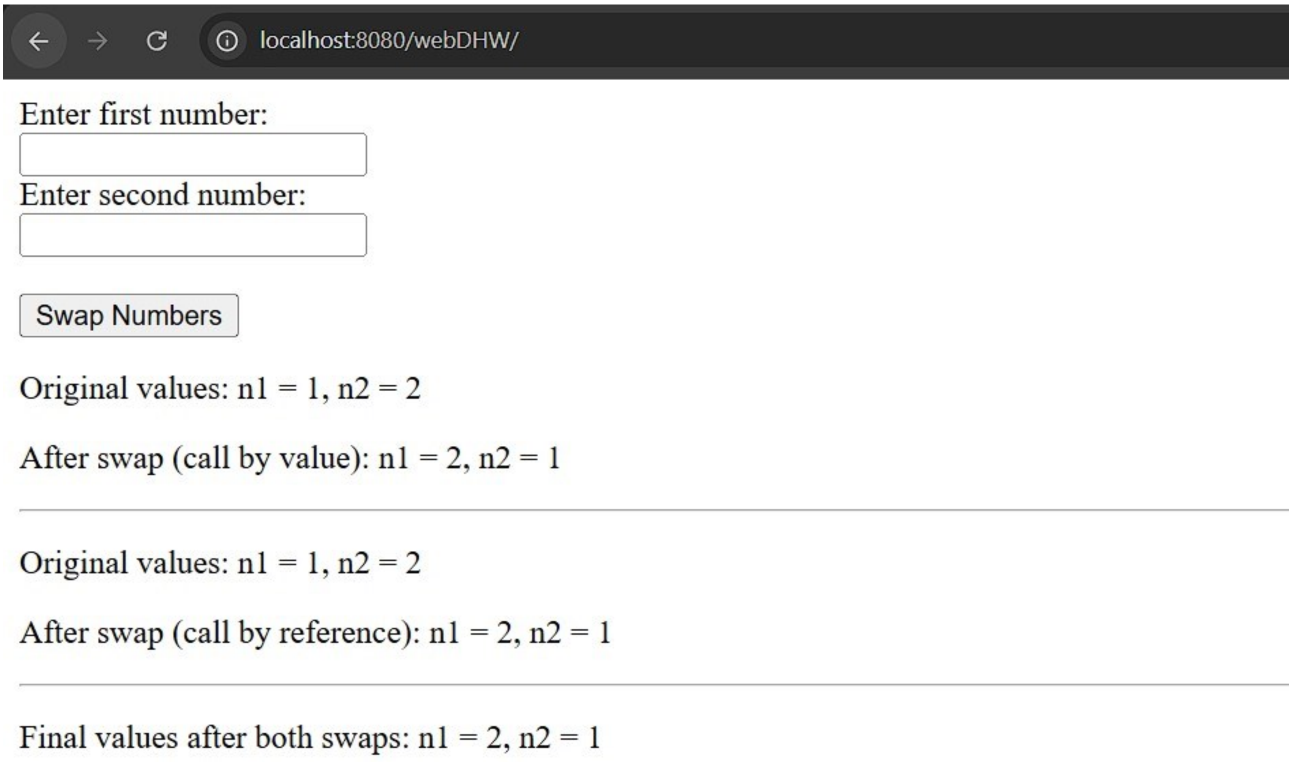
OUTPUT - 18 :



Enter first number:

Enter second number:

```
Original values: n1 = 1, n2 = 2

After swap (call by value): n1 = 2, n2 = 1
```

```
Original values: n1 = 1, n2 = 2

After swap (call by reference): n1 = 2, n2 = 1
```

```
Final values after both swaps: n1 = 2, n2 = 1
```

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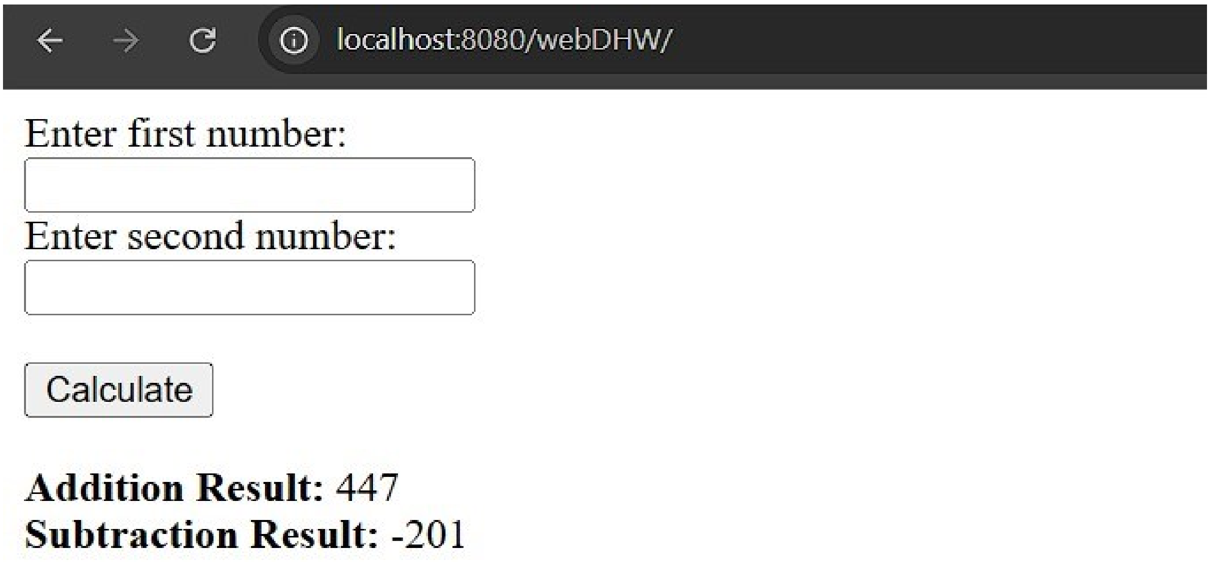
Q19: Write PHP script to two functions add() and sub() , take input from user using isset() function .

CODE:

```
<html>
   <head>
      <title>Basic Calculator</title>
   </head>
   <body>
      <form method="post">
         <label for="n1">Enter first number:</label><br>
         <input type="number" name="n1" id="n1" required><br>

         <label for="n2">Enter second number:</label><br>
<input type="number" name="n2" id="n2"
required><br><br>

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

      <?php
         // Function to perform addition
function add($a, $b) {
return $a + $b;
         }
         // Function to perform subtraction
function sub($a, $b) {            return
$a - $b;
         }
```

```
          // Check if form is submitted
if (isset($_POST['submit'])) {
              $n1 = $_POST['n1'];
              $n2 = $_POST['n2'];

              // Perform operations
              $sum = add($n1, $n2);
              $subtraction = sub($n1, $n2);
          }

          // Display results if available              if (isset($sum) &&
isset($subtraction)) {                echo "<br><strong>Addition
Result:</strong> " . $sum;                echo
"<br><strong>Subtraction Result:</strong> " .
$subtraction;
          }
       ?>
   </body>
</html>
```

OUTPUT – 19 :



Addition Result: 447
Subtraction Result: -201

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Q20: Write a PHP script to demonstrate the implementation of a) indexed array b) associative array(employee and salary) c)multidimensional array(student details) .

CODE:

```
<?php
// Indexed Array
$color = array("Red", "Blue", "Green");
echo "<h3>Indexed Array:</h3>"; echo
"First color: " . $color[0] . "<br>";
echo "Second color: " . $color[1] . "<br>";

// Associative Array
$employees = array(
    "Aman" => 50000,
    "Neha" => 60000,
    "Joe" => 55000
);
echo "<h3>Associative Array (Employee and Salary):</h3>";
foreach ($employees as $name => $salary) {     echo
"Employee: $name, Salary: $salary<br>";
}

// Multidimensional Array $students = array(
array("name" => "John", "age" => 21, "grade" => "A"),
array("name" => "Amit", "age" => 22, "grade" => "B"),
array("name" => "Jerry", "age" => 23, "grade" => "C")
);
echo "<h3>Multidimensional Array (Student Details):</h3>";
```

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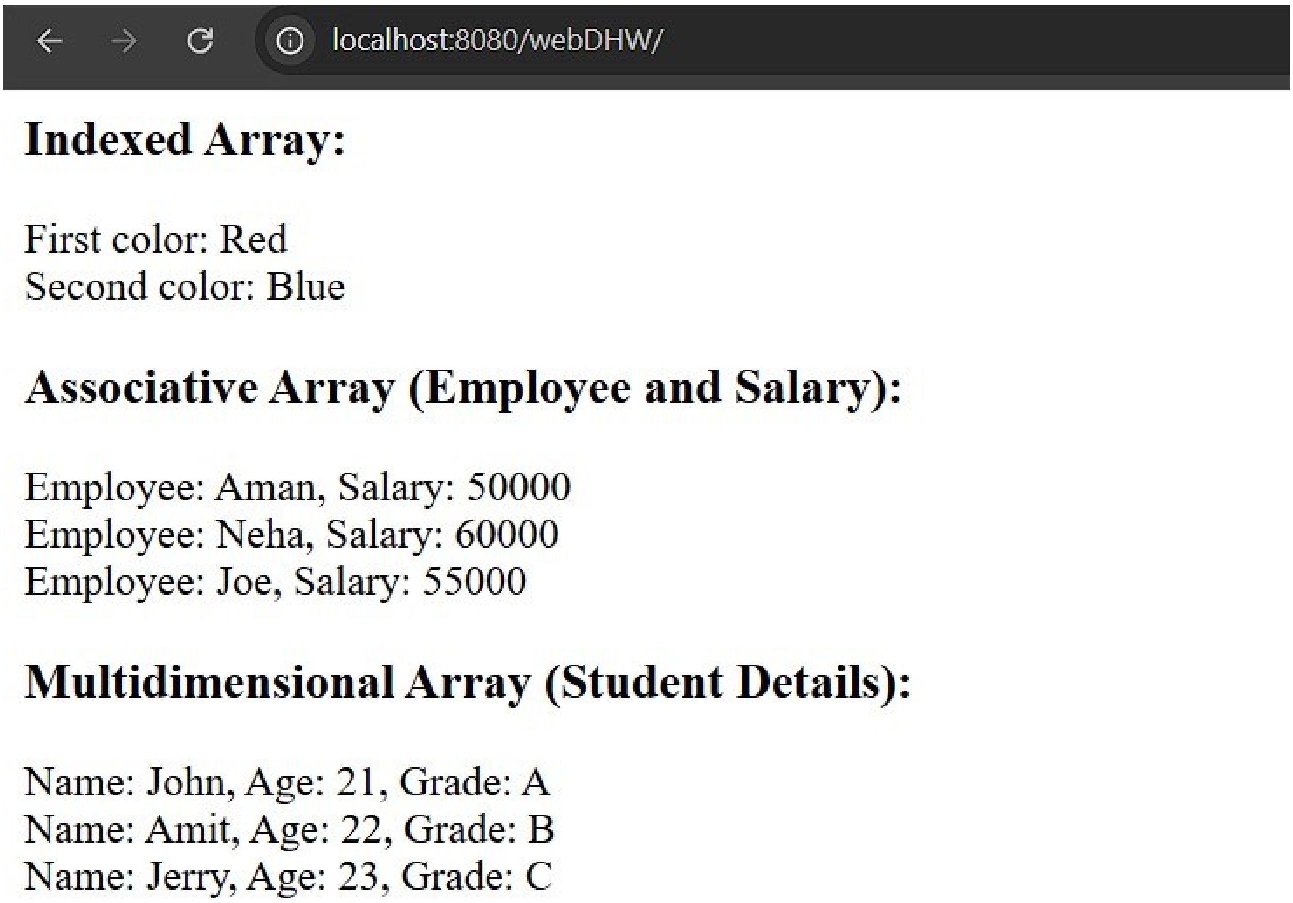
```
for ($i = 0; $i < count($students); $i++) {     echo
"Name: " . $students[$i]['name'] . ", Age: " .
$students[$i]['age'] . ", Grade: " .
   $students[$i]['grade'] . "<br>";
}
?>
```

OUTPUT - 20 :



```
Indexed Array:

First color: Red
Second color: Blue

Associative Array (Employee and Salary):

Employee: Aman, Salary: 50000
Employee: Neha, Salary: 60000
Employee: Joe, Salary: 55000

Multidimensional Array (Student Details):

Name: John, Age: 21, Grade: A
Name: Amit, Age: 22, Grade: B
Name: Jerry, Age: 23, Grade: C
```

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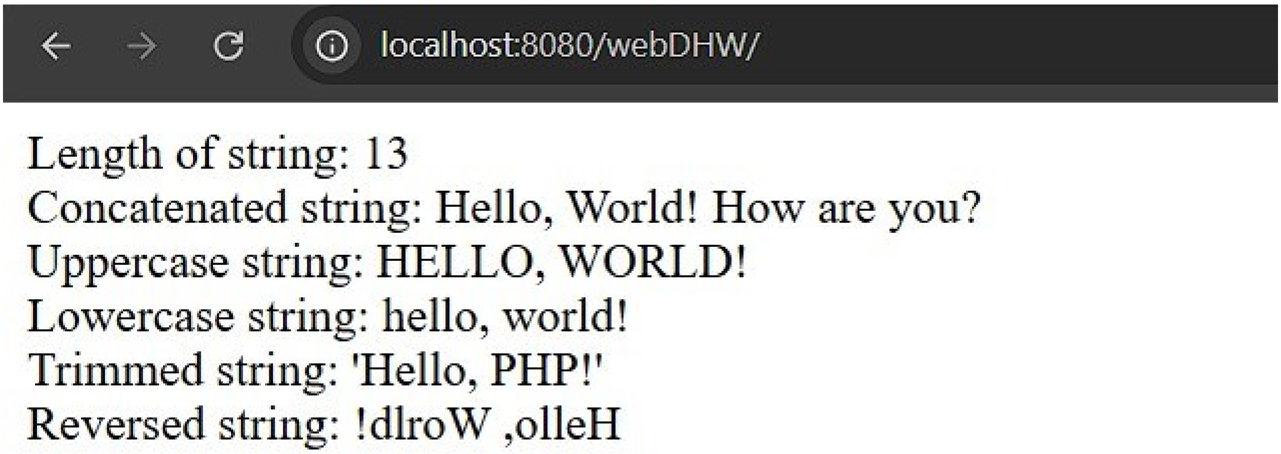
Q21: Write PHP script to demonstrate the implementation of string function .

HTML :

```
<?php
// Initialize the string
$string = "Hello, World!";

// Length of the string
echo "Length of string: " . strlen($string) . "<br>";

// Concatenate strings
$string2 = " How are you?";
$concatenatedString = $string . $string2;
echo "Concatenated string: " . $concatenatedString . "<br>";

// Convert to uppercase
$upperCaseString = strtoupper($string);
echo "Uppercase string: " . $upperCaseString . "<br>";

// Convert to lowercase
$lowerCaseString = strtolower($string);
echo "Lowercase string: " . $lowerCaseString . "<br>";

// Trim spaces from the string
$stringWithSpaces = " Hello, PHP! "; $trimmedString
= trim($stringWithSpaces);
echo "Trimmed string: '" . $trimmedString . "'<br>";

// Reverse the string
```

```
$reversedString = strrev($string);
echo "Reversed string: " . $reversedString . "<br>"; ?>
```

OUTPUT – 21 :



```
Length of string: 13
Concatenated string: Hello, World! How are you?
Uppercase string: HELLO, WORLD!
Lowercase string: hello, world!
Trimmed string: 'Hello, PHP!'
Reversed string: !dlroW ,olleH
```

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Q22: Write a php script to create database employee and create table emp_info.

CODE :

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

// Create connection
$conn = new mysqli($servername, $username, $password);
if ($conn->connect_error) {     die("Connection
failed: " . $conn->connect_error);
} else {
   echo "<center>Connected successfully</center><br>";
}

// Create database
$sql = "CREATE DATABASE IF NOT EXISTS EMP2";
if ($conn->query($sql) === TRUE) {     echo
"<center>Database created successfully</center><br>";
} else {
   echo "Error creating database: " . $conn->error;
}

// Select the database
$conn->select_db('EMP2');

// Create table
```

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```
$sql = "CREATE TABLE IF NOT EXISTS EMP_INFO (
   id INT(6) PRIMARY KEY,     ename
VARCHAR(10) NOT NULL,      salary
INT(7) NOT NULL,
   email VARCHAR(20)
)";
if ($conn->query($sql) === TRUE) {
   echo "<center>Table EMP_INFO created</center><br>";
} else {
   echo "Error creating table: " . $conn->error;
}

// Insert data
$sql = "INSERT INTO EMP_INFO (id, ename, salary, email)
VALUES
(1011, 'david', 15600, 'david1@gmail.com'),
(1042, 'john', 19750, 'john02@gmail.com'),
(1073, 'sunny', 20500, 'sunny@gmail.com'),
(1094, 'maria', 18500, 'maria3@gmail.com')";

if ($conn->query($sql) === TRUE) {     echo
"<p>Records inserted successfully</p>";
} else {
   echo "<p>Error inserting records: " . $conn->error . "</p>";
}

// Fetch and display data
$sql = "SELECT * FROM EMP_INFO";
$result = $conn->query($sql);

if ($result->num_rows > 0) {     echo
"<h2>Course records: </h2>";
   echo "<table>
```

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```
    <tr>
        <th>ID</th>
        <th>ename</th>
        <th>salary</th>
        <th>email</th>
    </tr>";
    while ($row = $result->fetch_assoc()) {
        echo "<tr>
            <td>" . $row["id"] . "</td>
            <td>" . $row["ename"] . "</td>
            <td>" . $row["salary"] . "</td>
            <td>" . $row["email"] . "</td>
        </tr>";
    }
    echo "</table>"; }
else {
    echo "<p>No results found</p>";
}

// Close connection
$conn->close();
?>
```

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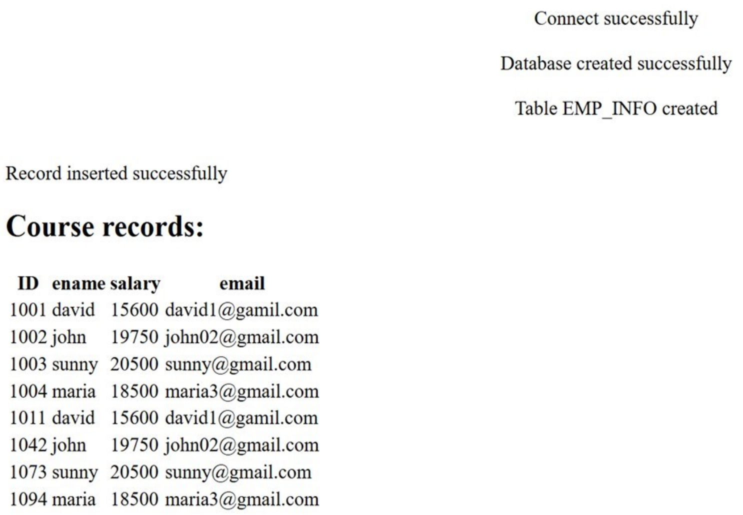
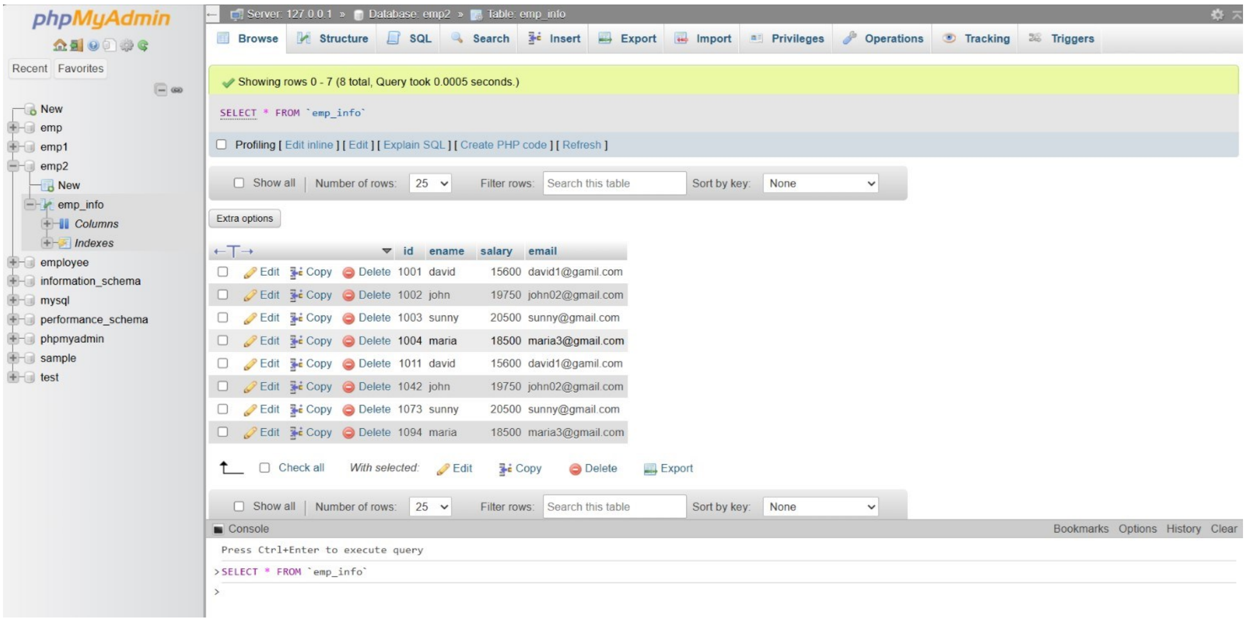
OUTPUT – 22:



```
                    Connect successfully

                  Database created successfully

                    Table EMP_INFO created

Record inserted successfully

Course records:

 ID  ename salary      email
1001 david  15600 david1@gamil.com
1002 john   19750 john02@gmail.com
1003 sunny  20500 sunny@gmail.com
1004 maria  18500 maria3@gmail.com
1011 david  15600 david1@gamil.com
1042 john   19750 john02@gmail.com
1073 sunny  20500 sunny@gmail.com
1094 maria  18500 maria3@gmail.com
```



✓ Showing rows 0 - 7 (8 total, Query took 0.0005 seconds.)

```
SELECT * FROM `emp_info`
```

□ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

□ Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

	id	ename	salary	email
□ Edit Copy Delete	1001	david	15600	david1@gamil.com
□ Edit Copy Delete	1002	john	19750	john02@gmail.com
□ Edit Copy Delete	1003	sunny	20500	sunny@gmail.com
□ Edit Copy Delete	1004	maria	18500	maria3@gmail.com
□ Edit Copy Delete	1011	david	15600	david1@gamil.com
□ Edit Copy Delete	1042	john	19750	john02@gmail.com
□ Edit Copy Delete	1073	sunny	20500	sunny@gmail.com
□ Edit Copy Delete	1094	maria	18500	maria3@gmail.com

□ Check all *With selected:* Edit Copy Delete Export

□ Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

```
Press Ctrl+Enter to execute query
>SELECT * FROM `emp_info`
>
```