COMPSOFT TECHNOLOGIES

Rajajinagar, Bangalore-560010

AN
INTERNSHIP REPORT
ON

"VTU SGPA/CGPA CALCULATOR"

Bachelor of Engineering

In
Computer Science and Engineering

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GLOBAL ACADEMY OF TECHNOLOGY

Rajarajeshwari Nagar, Bengaluru – 560 098

2021

ABOUT THE COMPANY

The race for digital transformation is on. In this globally connected on-demand world with rapid advancements in internet technologies, businesses worldwide are under constant pressure to add innovative real-time capabilities to their applications to respond to market opportunities.

Every business worldwide is building event-driven, real-time applications - from financial services, transportation, and energy, to retail, healthcare, and Gaming companies.
Our endeavour is to make it easy to develop innovative real-time applications and efficient to operate them in production.

We have a proven record of building highly scalable, world-class consulting processes that offer tremendous business advantages to our clients in the form of huge cost-benefits, definitive results and consistent project deliveries across the globe.

We prominently strive to improve your business by delivering the full range of competencies including operational performance, developing and applying business strategies to improve financial reports, defining strategic goals and measure and manage those goals along with measuring and managing them.

Vision

We are committed to going the extra mile to bring success to the clients consistently

We are dedicated to delivering the right people, solutions, and services to the clients that they require to meet their technology challenges and business goals.

Mission

Optimizing client satisfaction with quality services

Delivering the most efficient and the best solution to our clients to every client leveraging leading technologies & industry best practices.

TABLE OF CONTENTS

OVERVIEW OF THE PROJECT

Project Name: VTU SGPA/CGPA CALCULATOR

Team Members: VIVEK S SHYAVI
MARUTHI K

CGPA refers to the cumulative grade point average which literally translates to the sum total of all your credit points. This system helps in assessing the overall academic performance of a student. Although the evaluation criteria may vary from one country to another, the CGPA system is among the most common evaluation way in most professional/technical courses

HOW TO GET SGPA

SGPA, which stands for Semester Grade Point Average is an evaluation method that highlights the semester wise performance of the student. It can be calculated by simply adding all the credit points awarded for the subjects and then dividing it by the total credits allotted to that semester.

For example, in a total of 3 subjects, you scored the following grade points:

Subject 1: 8

Subject 2: 6

Subject 3: 7

The total credit for each subject is 10.

1. Now, first we will multiply, the grade point with the total credit point for each subject:

Subject 1: 8*10 = 80

Subject 2: 6*10 = 60

Subject 3: 7*10 = 70

2. To calculate SGPA here, you need to add all these grade points and then divide it by the total credits, i.e.

Total grade points: 210

Total credits: 30

To get SGPA, divide grade points by total credits,

=210/30

=7 SGPA

HOW TO GET CGPA FROM SGPA

To find CGPA from SGPA, you need to follow this formula:

CGPA= (SGPAs of All semesters in an academic year)/ Number of semesters

Thus, by adding up all the SGPAs you have got in an academic year by the total number of semesters, you will find CGPA from SGPA.

For example,

Suppose that you scored 7 SGPA and 9 SGPA in your two semesters.

1. First you need to add both these SGPAs.

2. Then, divide the total SGPA with the number of semesters, i.e. 2.

Your CGPA would be:

CGPA = SGPA of all semesters in a year/Number of semesters

= (7+9)/2

= 8 CGPA

TOOLS USED

Software Requirements

- Visual Studio Code 2019.
- Google Chrome or Microsoft Edge of latest version.
- Front End: HTML, CSS, JS, BS(optional)
- Linux 7.1 or Windows XP/7/8/10 OS or Mac OS
- PHP server-XAMPP, WAMP, etc.
- Logic requirement: JavaScript and Logical use of the formula.
- MySQL Database – For managing data entered by the user.

Hardware Requirements

- Pentium 200-MHz computer with a minimum of 64 MB of RAM (128 MB of RAM recommended).
- Monitor with a refresh rate of at least 40Hz for a smooth GUI experience (optional).

IMPLEMENTATION

Source Code (home.html):

```
<!DOCTYPE html>
<html>
    <head>
        <link rel="stylesheet" href="style.css">
     <title>WEB PROJECT</title>
    </head>
    <body>
        <div class="main">
            <div class= "text">
                <h3>SGPA and CGPA Calculator</h3>

            </div>


        <div class="choose">
           <li> <a href = "sgpa.html">SGPA</a></li>
           <li> <a href = "cgpa.html">CGPA</a></li>

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

Source Code (sgpa.html):

```
<!DOCTYPE html>
<html>
    <head>
        <link rel="stylesheet" href="style.css">
     <title>SGPA CALCULATOR</title>
    </head>
    <body>

            <div class= "text">
                <h3>SGPA Calculator</h3>

            </div>
            <div class="ho">
                <a href = "home.html">BACK TO HOME</a>


             </div>
        <div class = "sgpa">
            <form action="sgpa.php" method="POST">
            <table>
                <tr>
                  <th>SUBJECTS</th>
                  <th>GRADE POINTS</th>
                  <th>CREDIT OF PARTICULAR SUBJECTS</th>
                </tr>
                <tr>
                  <td>SUBJECT 1</td>
                  <td><input type="number" min="1" max="10" id="gp1"
name="gp1"></td>
                  <td><input type="number" min="1" max="4" id="cp1" name="cp1"></td>
                </tr>
                <tr>
                    <td>SUBJECT 2</td>
                    <td><input type="number" min="1" max="10" id="gp2"
name="gp2"></td>
                    <td><input type="number" min="1" max="4" id="cp2"
name="cp2"></td>
                  </tr>
                  <tr>
                    <td>SUBJECT 3</td>
```

```
                  <td><input type="number" min="1" max="10" id="gp3"
            name="gp3"></td>
                  <td><input type="number" min="1" max="4" id="cp3"
name="cp3"></td>
                </tr>
                <tr>
                  <td>SUBJECT 4</td>
                  <td><input type="number" min="1" max="10" id="gp4"
name="gp4"></td>
                  <td><input type="number" min="1" max="4" id="cp4"
name="cp4"></td>
                </tr>
                <tr>
                  <td>SUBJECT 5</td>
                  <td><input type="number" min="1" max="10" id="gp5"
name="gp5"></td>
                  <td><input type="number" min="1" max="4" id="cp5"
name="cp5"></td>
                </tr>
                <tr>
                  <td>SUBJECT 6</td>
                  <td><input type="number" min="1" max="10" id="gp6"
name="gp6"></td>
                  <td><input type="number" min="1" max="4" id="cp6"
name="cp6"></td>
                </tr>
                <tr>
                  <td>SUBJECT 7</td>
                  <td><input type="number" min="1" max="10" id="gp7"
name="gp7"></td>
                  <td><input type="number" min="1" max="4" id="cp7"
name="cp7"></td>
                </tr>
                <tr>
                  <td>SUBJECT 8</td>
                  <td><input type="number" min="1" max="10" id="gp8"
name="gp8"></td>
                  <td><input type="number" min="1" max="4" id="cp8"
name="cp8"></td>
                </tr>
                <tr>
                  <td>SUBJECT 9</td>
                  <td><input type="number" min="1" max="10" id="gp9"
name="gp9"></td>
```

```
                  <td><input type="number" min="1" max="4" id="cp9"
            name="cp9"></td>
                 </tr>
                 <tr>
                   <td>SUBJECT 10</td>
                   <td><input type="number" min="1" max="10" id="gp10"
name="gp10"></td>
                   <td><input type="number" min="1" max="4" id="cp10"
name="cp10"></td>
                 </tr>
              </table>
              <p id="sgparesult"></p>
              <button name="go">SAVE TO DATABASE</button>
            </form>
            <button onclick="sgpafunction()">GET SGPA</button>
    </div>
    <script src="jscript.js"></script>
    </body>
</html>
```

Source Code (cgpa.html):

```
<!DOCTYPE html>
<html>
    <head>
        <link rel="stylesheet" href="style.css">
     <title>CGPA CALCULATOR</title>
    </head>
    <body>

            <div class= "text">
                <h3>CGPA Calculator</h3>

            </div>
            <div class="ho">
                <a href = "home.html">BACK TO HOME</a>


             </div>
        <div class = "cgpa">
            <p>Leave Blank for semester that you dont have SGPA</p><br>
            <form action="cgpa.php" method="POST">

        <p>Enter SGPA for SEM 1 :</p>
        <input type="number" step="0.01" min="0" max="10" id="sem1"
name="sem1"> <br>
        <p>Enter SGPA for SEM 2 :</p>
        <input type="number" step="0.01" min="0" max="10" id="sem2"
name="sem2"><br>
        <p>Enter SGPA for SEM 3 :</p>
        <input type="number" step="0.01" min="0" max="10" id="sem3"
name="sem3"><br>
        <p>Enter SGPA for SEM 4 :</p>
        <input type="number" step="0.01" min="0" max="10" id="sem4"
name="sem4"><br>
        <p>Enter SGPA for SEM 5 :</p>
        <input type="number" step="0.01" min="0" max="10" id="sem5"
name="sem5"><br>
```

```
<p>Enter SGPA for SEM 6 :</p>
        <input type="number" step="0.01" min="0" max="10" id="sem6"
name="sem6"><br>
        <p>Enter SGPA for SEM 7 :</p>
        <input type="number" step="0.01" min="0" max="10" id="sem7"
name="sem7"><br>
        <p>Enter SGPA for SEM 8 :</p>
        <input type="number" step="0.01" min="0" max="10" id="sem8"
name="sem8"><br>
        <p id="cgparesult"></p>

        <button name="save">SAVE TO DATABASE</button>
        </form>
        <button onclick="cgpafunction()" >GET CGPA</button>
    </div>

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

Source Code (style.css):

```
*{
    padding : 0%;
    margin : 0%;
    font-family: Arial;
 }
body{
    background-color: hotpink;
 }
.text {
    background-color: black;
    color: lightyellow;
    border : 2px solid white;
    border-radius: 20px;
    text-align: center;
    padding : 15px;
}
.choose{
    padding : 250px 20px;
}
.choose li{
    list-style-type: none;
    text-align: center;
    padding : 20px 10px;

}
.choose li a{
    text-decoration: none;
    padding : 10px 50px;
    color : yellow;
    border : 1px solid yellow;

   border-radius: 10px;
    background-color: black;
}
```

```
.sgpa{
    margin-right : 450px;
    margin-left: 450px;
    color : yellow;
    border : 1px solid yellow;
    border-radius: 10px;
    background-color: black;
    padding : 5px 5px;
    height : 550px;
}
.sgpa form table tr td{
    padding : 7px 2px;

}
.sgpa form table tr td input{
    width : 210px;
    padding : 5px 5px;
}

    .cgpa {
        margin-right : 400px;
        margin-left: 400px;
        color : yellow;
        border : 1px solid yellow;
        border-radius: 10px;
        background-color: black;
        padding : 5px 5px;
        height : 580px;

   }
.cgpa input{
    width : 250px;
    padding : 5px 5px;
}
.cgpa p{
    padding : 5px 5px;
}
```

```
.ho{
    padding : 20px;
}
.ho a{
    text-decoration: none;
    padding : 10px;
    color : yellow;
    border : 1px solid yellow;
    border-radius: 10px;
    background-color: black;

}


.choose li a:hover{
   background-color : yellow;
   color: black;
   border:1px solid black;
    transition : 0.3s;
}

.ho a:hover{
   background-color : yellow;

   color: black;
   border:1px solid black;
    transition : 0.3s;
}
```

Source Code (jscript.js):

```
   function cgpafunction() {
var sem1=document.getElementById("sem1").value;
var sem2=document.getElementById("sem2").value;
var sem3=document.getElementById("sem3").value;
var sem4=document.getElementById("sem4").value;
var sem5=document.getElementById("sem5").value;
var sem6=document.getElementById("sem6").value;
var sem7=document.getElementById("sem7").value;
var sem8=document.getElementById("sem8").value;

if(sem1){
    document.getElementById("cgparesult").innerHTML = sem1;
    if(sem2){
        var result=parseFloat(sem1) + parseFloat(sem2);
        document.getElementById("cgparesult").innerHTML = result/2;
        if(sem3){
            var result=parseFloat(sem1) + parseFloat(sem2) +
parseFloat(sem3);
            document.getElementById("cgparesult").innerHTML =
result/3;
            if(sem4){
                var result=parseFloat(sem1) + parseFloat(sem2) +
parseFloat(sem3) + parseFloat(sem4);
                document.getElementById("cgparesult").innerHTML =
result/4;
                if(sem5){
                    var result=parseFloat(sem1) + parseFloat(sem2) +
parseFloat(sem3) + parseFloat(sem4) + parseFloat(sem5);
                    document.getElementById("cgparesult").innerHTML
= result/5;
                    if(sem6){
                        var result=parseFloat(sem1) +
parseFloat(sem2) + parseFloat(sem3) + parseFloat(sem4) + parseFloat(sem5) +
parseFloat(sem6);

document.getElementById("cgparesult").innerHTML = result/6;
                        if(sem7){
```

```
   var result=parseFloat(sem1) + parseFloat(sem2) + parseFloat(sem3) +
parseFloat(sem4) + parseFloat(sem5) + parseFloat(sem6) + parseFloat(sem7);

document.getElementById("cgparesult").innerHTML = result/7;
                                    if(sem8){
                                        var result=parseFloat(sem1) +
parseFloat(sem2) + parseFloat(sem3) + parseFloat(sem4) + parseFloat(sem5) +
parseFloat(sem6) + parseFloat(sem7) + parseFloat(sem8);

document.getElementById("cgparesult").innerHTML = result/8;
                                    }
                                }
                            }
                        }
                    }
                }
            }

        }
   }


   function sgpafunction() {
       var gp1=document.getElementById("gp1").value;
       var gp2=document.getElementById("gp2").value;
       var gp3=document.getElementById("gp3").value;
       var gp4=document.getElementById("gp4").value;
       var gp5=document.getElementById("gp5").value;
       var gp6=document.getElementById("gp6").value;
       var gp7=document.getElementById("gp7").value;
       var gp8=document.getElementById("gp8").value;
       var gp9=document.getElementById("gp9").value;
       var gp10=document.getElementById("gp10").value;

       var cp1=document.getElementById("cp1").value;
       var cp2=document.getElementById("cp2").value;
       var cp3=document.getElementById("cp3").value;
       var cp4=document.getElementById("cp4").value;
       var cp5=document.getElementById("cp5").value;
```

```
          var cp6=document.getElementById("cp6").value;
        var cp7=document.getElementById("cp7").value;
        var cp8=document.getElementById("cp8").value;
        var cp9=document.getElementById("cp9").value;
        var cp10=document.getElementById("cp10").value;



        var tot1= gp1*cp1;
        var tot2= gp2*cp2;
        var tot3= gp3*cp3;
        var tot4= gp4*cp4;
        var tot5= gp5*cp5;
        var tot6= gp6*cp6;
        var tot7= gp7*cp7;
        var tot8= gp8*cp8;
        var tot9= gp9*cp9;
        var tot10= gp10*cp10;


        if(tot1){
            document.getElementById("sgparesult").innerHTML = gp1;
            if(tot2){
                var result=(parseFloat(tot1) +
parseFloat(tot2))/(parseFloat(cp1) + parseFloat(cp2));
                document.getElementById("sgparesult").innerHTML = result;
                if(tot3){
                    var result=(parseFloat(tot1) + parseFloat(tot2) +
parseFloat(tot3))/(parseFloat(cp1) + parseFloat(cp2) + parseFloat(cp3));
                    document.getElementById("sgparesult").innerHTML =
result;
                    if(tot4){
                        var result=(parseFloat(tot1) + parseFloat(tot2) +
parseFloat(tot3) + parseFloat(tot4))/(parseFloat(cp1) + parseFloat(cp2) +
parseFloat(cp3) + parseFloat(cp4));
                        document.getElementById("sgparesult").innerHTML =
result;
                        if(tot5){
                            var result=(parseFloat(tot1) + parseFloat(tot2)
+ parseFloat(tot3) + parseFloat(tot4) + parseFloat(tot5))/(parseFloat(cp1)
+ parseFloat(cp2) + parseFloat(cp3) + parseFloat(cp4) + parseFloat(cp5));
```

```
   document.getElementById("sgparesult").innerHTML=result;
                            if(tot6){
                                var result=(parseFloat(tot1) +
parseFloat(tot2) + parseFloat(tot3) + parseFloat(tot4) + parseFloat(tot5) +
parseFloat(tot6))/(parseFloat(cp1) + parseFloat(cp2) + parseFloat(cp3) +
parseFloat(cp4) + parseFloat(cp5) + parseFloat(cp6));

document.getElementById("sgparesult").innerHTML = result;
                                if(tot7){
                                    var result=(parseFloat(tot1) +
parseFloat(tot2) + parseFloat(tot3) + parseFloat(tot4) + parseFloat(tot5) +
parseFloat(tot6) + parseFloat(tot7))/(parseFloat(cp1) + parseFloat(cp2) +
parseFloat(cp3) + parseFloat(cp4) + parseFloat(cp5) + parseFloat(cp6) +
parseFloat(cp7));

document.getElementById("sgparesult").innerHTML = result;
                                    if(tot8){
                                        var result=(parseFloat(tot1) +
parseFloat(tot2) + parseFloat(tot3) + parseFloat(tot4) + parseFloat(tot5) +
parseFloat(tot6) + parseFloat(tot7) + parseFloat(tot8))/(parseFloat(cp1) +
parseFloat(cp2) + parseFloat(cp3) + parseFloat(cp4) + parseFloat(cp5) +
parseFloat(cp6) + parseFloat(cp7) + parseFloat(cp8));

document.getElementById("sgparesult").innerHTML = result;
                                        if(tot9){
                                            var result=(parseFloat(tot1) +
parseFloat(tot2) + parseFloat(tot3) + parseFloat(tot4) + parseFloat(tot5) +
parseFloat(tot6) + parseFloat(tot7) + parseFloat(tot8) +
parseFloat(tot9))/(parseFloat(cp1) + parseFloat(cp2) + parseFloat(cp3) +
parseFloat(cp4) + parseFloat(cp5) + parseFloat(cp6) + parseFloat(cp7) +
parseFloat(cp8) + parseFloat(cp9));

document.getElementById("sgparesult").innerHTML = result;
                                            if(tot10){
                                                var result=(parseFloat(tot1)
+ parseFloat(tot2) + parseFloat(tot3) + parseFloat(tot4) + parseFloat(tot5)
+ parseFloat(tot6) + parseFloat(tot7) + parseFloat(tot8) + parseFloat(tot9)
+ parseFloat(tot10))/(parseFloat(cp1) + parseFloat(cp2) + parseFloat(cp3) +
parseFloat(cp4) + parseFloat(cp5) + parseFloat(cp6) + parseFloat(cp7) +
parseFloat(cp8) + parseFloat(cp9) + parseFloat(cp10));

document.getElementById("sgparesult").innerHTML = result;
                                            }
                                        }
                                    }
```

```
                                    }
                                }
                            }
                        }
                    }
                }
            }

    }
```

Source Code (sgpa.php):

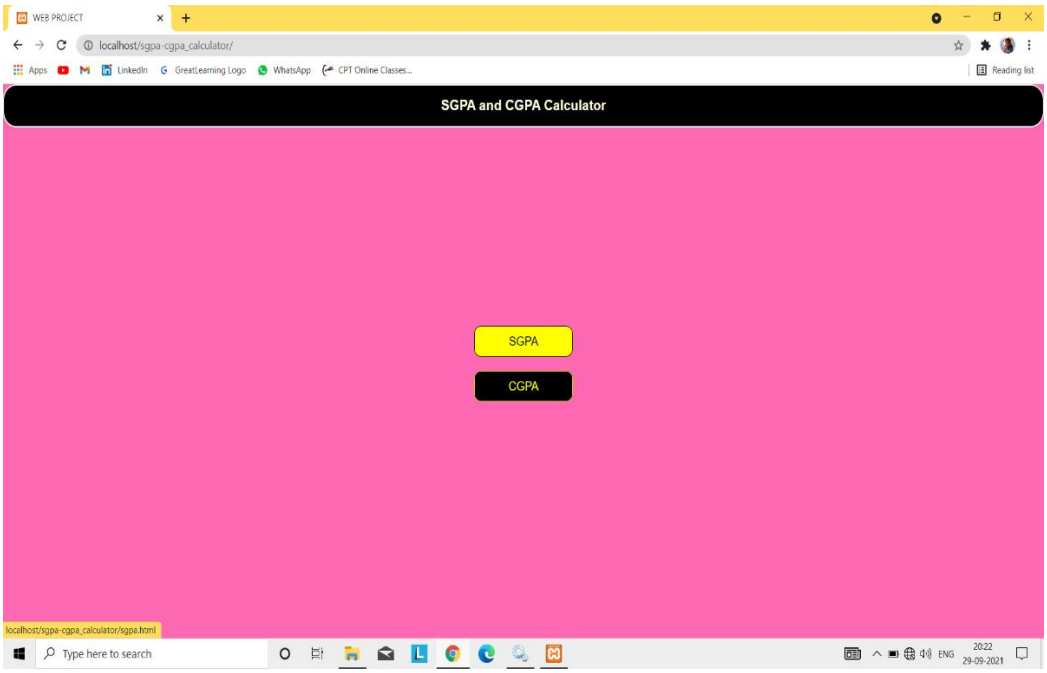
```
<?php
    $servername = "localhost";
    $username = "root";
    $password = "";
    $database_name = "sgpa-cgpa_calculator";

    $conn = mysqli_connect($servername, $username, $password,
$database_name);

    if(!$conn)
    {
        die("Connection Failed :" . mysqli_connect_error());

    }
    if(isset($_POST['go']))
    {
        $gp1 = $_POST['gp1'];
        $gp2 = $_POST['gp2'];
        $gp3 = $_POST['gp3'];
        $gp4 = $_POST['gp4'];
        $gp5 = $_POST['gp5'];
        $gp6 = $_POST['gp6'];
        $gp7 = $_POST['gp7'];
        $gp8 = $_POST['gp8'];
        $gp9 = $_POST['gp9'];
        $gp10 = $_POST['gp10'];

        $cp1 = $_POST['cp1'];
        $cp2 = $_POST['cp2'];
        $cp3 = $_POST['cp3'];
        $cp4 = $_POST['cp4'];
        $cp5 = $_POST['cp5'];
        $cp6 = $_POST['cp6'];
        $cp7 = $_POST['cp7'];
        $cp8 = $_POST['cp8'];
        $cp9 = $_POST['cp9'];
```

```
        $cp10 = $_POST['cp10'];



          $sql_query = "INSERT INTO sgpa (gp1, cp1, gp2, cp2, gp3, cp3,
gp4, cp4, gp5, cp5, gp6, cp6, gp7, cp7, gp8, cp8, gp9, cp9, gp10, cp10)
          VALUES
('$gp1','$cp1','$gp2','$cp2','$gp3','$cp3','$gp4','$cp4','$gp5','$cp5','$gp
6','$cp6','$gp7','$cp7','$gp8','$cp8','$gp9','$cp9','$gp10','$cp10')";


          if(mysqli_query($conn, $sql_query))
          {
              echo "New Details Entered Successfully !";
          }
          else
          {
              echo "Error :" . $sql . "" . mysqli_error($conn);
          }
          mysqli_close($conn);
      }


  ?>
```

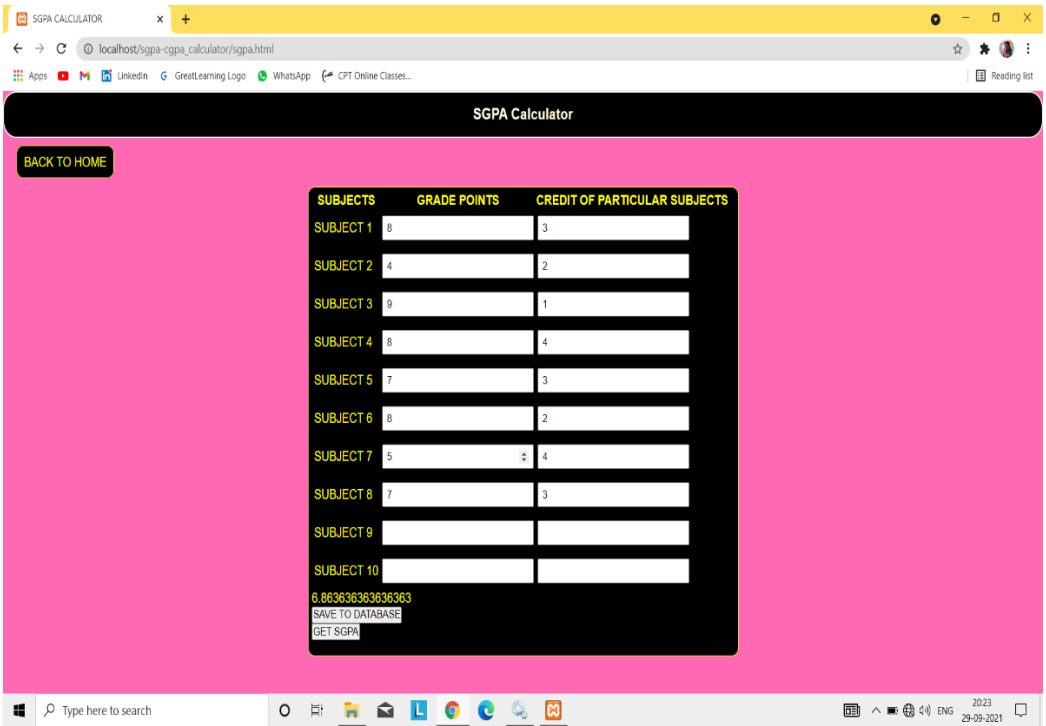
Source Code (cgpa.php):

```
<?php
    $servername = "localhost";
    $username = "root";
    $password = "";
    $database_name = "sgpa-cgpa_calculator";

    $conn = mysqli_connect($servername, $username, $password, $database_name);

    if(!$conn)
    {
        die("Connection Failed :" . mysqli_connect_error());

    }
    if(isset($_POST['save']))
    {
        $sem1 = $_POST['sem1'];
        $sem2 = $_POST['sem2'];
        $sem3 = $_POST['sem3'];
        $sem4 = $_POST['sem4'];
        $sem5 = $_POST['sem5'];
        $sem6 = $_POST['sem6'];
        $sem7 = $_POST['sem7'];
        $sem8 = $_POST['sem8'];


        $sql_query = "INSERT INTO cgpa (sem1, sem2, sem3, sem4, sem5, sem6, sem7
, sem8)
        VALUES ('$sem1','$sem2','$sem3','$sem4','$sem5','$sem6','$sem7','$sem8')
";

    if(mysqli_query($conn, $sql_query))
    {
        echo "New Details Entered Successfully !";

    }
    else
    {
        echo "Error :" . $sql . "" . mysqli_error($conn);
    }
        mysqli_close($conn);
    }

?>
```

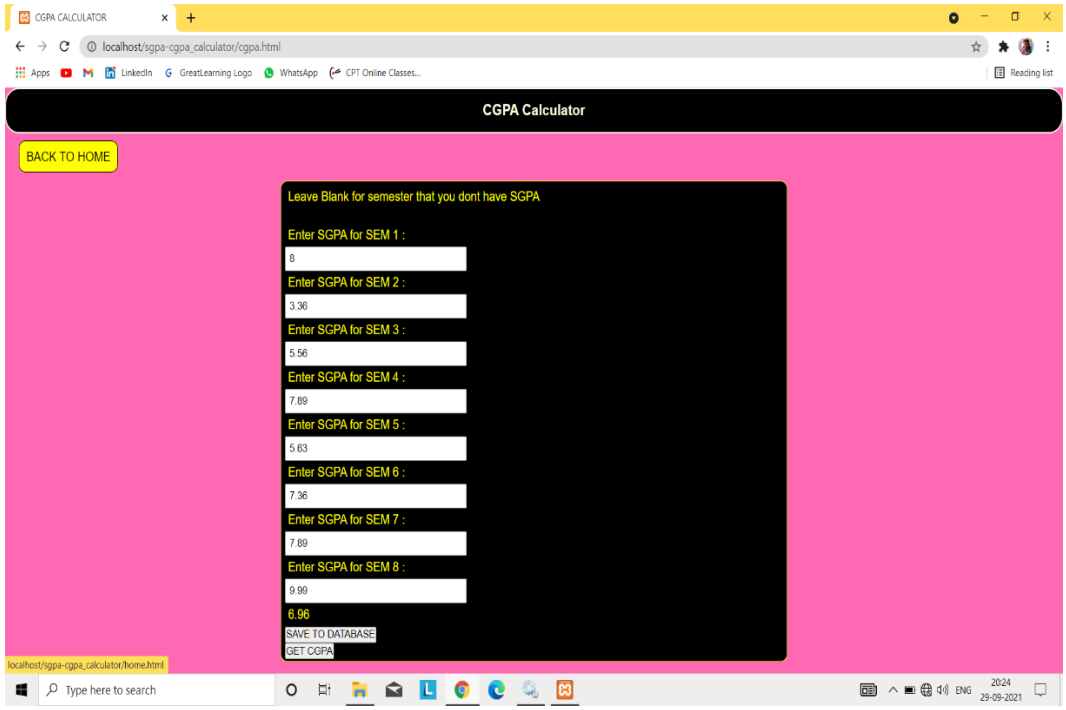
SNAPSHOTS:



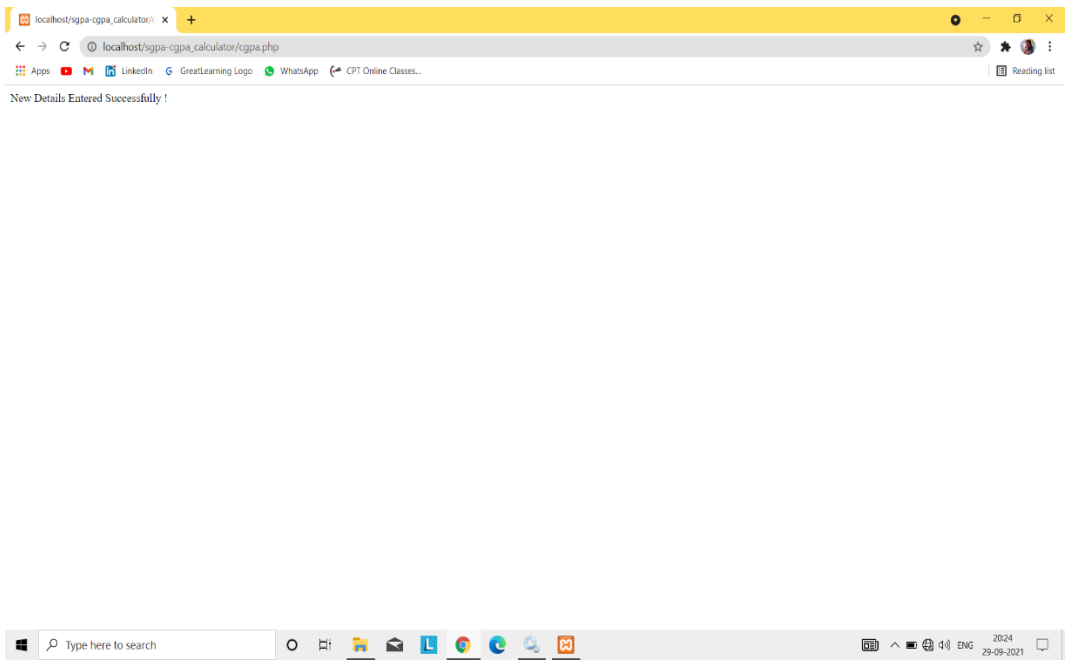
HOME PAGE TO SELECT OPTIONS



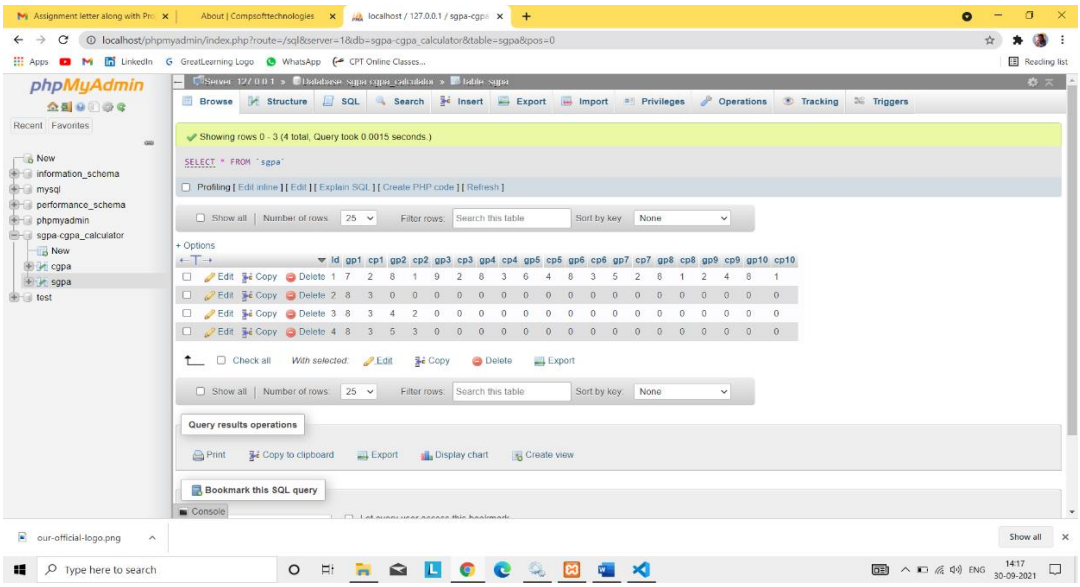
SGPA CALCULATOR PAGE



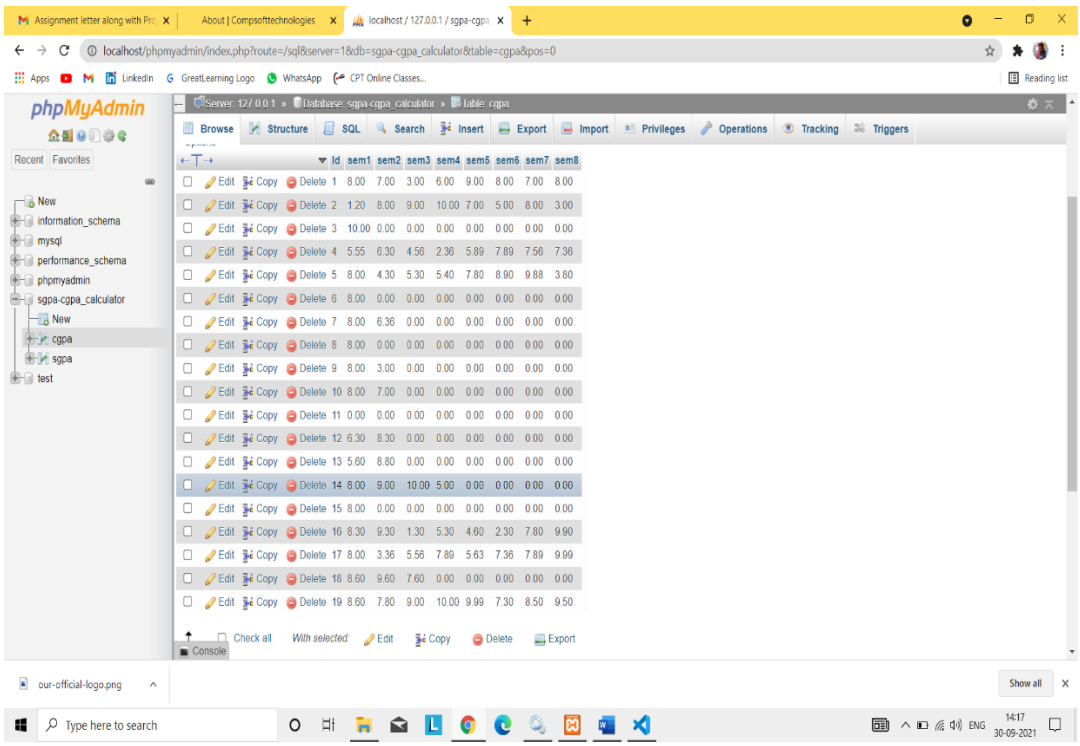
CGPA CALCULATOR PAGE



DATABASE STORED SUCCESSFULLY



SGPA TABLE DATABASE



CGPA TABLE DATABASE

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About my TEAM

VIVEK S SHYAVI : Made research about the topic. Wrote and Implemented JavaScript and PHP code to calculate SGPA and CGPA.

MARUTHI K : Wrote and Implemented HTML and CSS code to create website.