

A REPORT
ON
CGPA CALUCLATOR
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ABSTRACT

CGPA Calculator is completely creative, lightweight, clean & super responsive website landing page. This website is made using HTML, CSS , BOOTSTRAP for the frontend part and for performing operations such as animations and calculations JAVASCRIPT was used. For backend MYSQL was used and for connecting backend to frontend PHP was used. CGPA is referred to as a cumulative grade point average. CGPA gives the average grade point of the student performance in all the subjects excluding the additional Subject. The subject wise performance of the students is recorded in forms of Grades. The CGPA is used to denote the overall performance of the student in the academic session as grades. This website introduces many new functionality which the user performs in different system, it provides a platform for the user to calculate the cgpa and gpa of a particular student and store his/her data in the database and whenever the user feels like seeing the data he can extract the data which was calculated before and even print the data which many other websites doesn't even provide. This website was made in such a way that the set of tasks that were performed by the user in calculating, storing, retrieving data all these tasks can be handled in single website efficiently. The requirements to make this website was taken from the users opinions and after that analyzing into different models this website was made. The each functionality of this website is briefly discussed in this report.

Keywords

Cgpa calculator ,Database , responsive website, HTML, CSS , BOOTSTRAP, PHP , JAVASCRIPT

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INTRODUCTION

CGPA is denoted as **Cumulative Grade Point Average**. It executes the average grade point of the student performance in all the subjects precluding the additional subject. The CGPA is utilized to give the overall performance of the student in the academic session as grades. Our project is based on the CGPA calculator. Basically this website is different from all other CGPA calculators. We have make sure that the user can log in or can sign up for the website. We have designed the website in such a way that the user can calculate and save the result of any number of students in the database accordingly. In this site user is allowed to take the print of the result of a particular student or for all the students together for a particular semester or for final result and also the user can deposit their details and they can change them whenever required. This site gives the detailed information for whom it was calculated and for which courses it was graded. This site is much easier and user-friendly. In this report, it was clearly explained about the modules present in this website, about the existing system and the proposed system, system requirements, output snapshots of the modules, snapshots of main modules code.

EXISTING SYSTEM

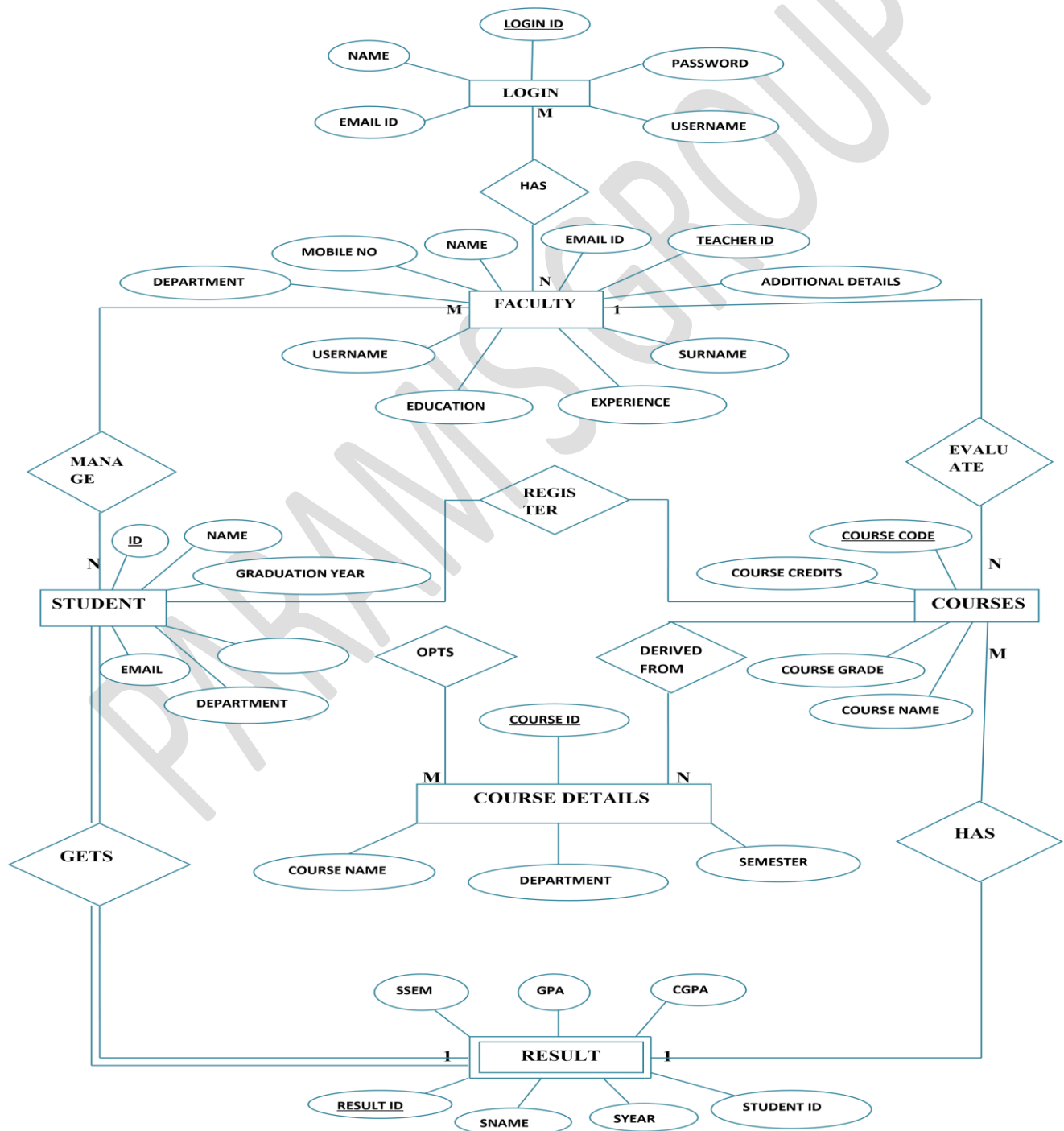
In the market there are many system which can calucalte the cgpa of a student and display it. But all of these systems only produce the cgpa and display it to the output screen but it doesn't show all the details like for whom it was calculated , for which courses it was calculated and if the user wishes to see the details that he/she had already calculated .This project was bulid from the scratch. 1st the information was taken from the users that what all functionality they require in this website. After taking the opinion from the user a desgin was made for this system . based on the information taken from the user the team analyzed the system and designed a database and frontend connected to it.

PROPOSED SYSTEM

In this system all the things mentioned above were taken care of like the user can log into system and caluculate the marks for any number of students and this system stores all the details of the students and calculates the cgpa and the user can see whenever he/she wishes to see the details and marks of respective students. This system stores the grade in each course

and the details of the course of a particular student in any of his semesters. This system also stores the details of user and user can change his/her details any time he wishes for. This system also allows the user to print the result sheet of a particular student as well as combinedly of all students. So basically this website's functionality makes it different from all the other cgpa calculators that are existing before. This website is user-friendly and ensures all the major needs of users is taken care of .

ENTITY RELATIONSHIP DIAGRAM



MODULES

LOGIN PAGE

The LOGIN page permits the user to clinch access to CGPA calculator by entering their Username and Password. If the user enters the Username and Password in order to gain access to CGPA calculator there will be two possible results:

- Authentication/Identification is successful and the user is directed to the next page.
- Authentication fails and the user remains on the login page. If authentication fails, the screen will show an informational or error message about the failure.

If the user has forgotten their password, the user could answer a security question.

SIGNUP PAGE

The users must have the ability to register as the member and thus gaining the access for the site. The SIGNUP page of this CGPA calculator site is manual i.e. registration is predicated on user furnishing a series of particular user information:

- NAME and EMAIL ADDRESS of the user should be entered correctly.
- USERNAME should be entered which will serve as login name.
- PASSWORD which will be used to log into the site.

Once the user has finalized providing essential Manual Signup input, they should click ‘Sign Up’ to activate registration validation and completion of the registration.

FRONT PAGE

The Website front page includes logotype of the website and two possible ways:

- REGISTER ACCOUNT: If the user want to gain access of the site, the user should sign up by clicking on this selector.
- LOGIN: If the user has an account existing already, they can directly login to the site.

PROFILE SETTINGS PAGE

You can use your profile settings to:

- View and Edit your profile details like Name, Surname, Username, Mobile number, Teacher id, Email id, Education, Department, experience, and the additional details.
- If the user has completed editing the details the user can click on the save details key and then click on back to homepage key and now the user can check in the profile page whether the edited details are saved.

PROFILE PAGE

It is the page where the user can see their related information detailing: Name, Surname, Username, Mobile number, Teacher id, Email id, Education, Department they belongs to, experience, and the additional details and also under the profile the name and email id of the user will be shown. Once the user is done with checking their information they can go back to the homepage by clicking on the BACK TO HOMEPAGE key.

STUDENTS DETAILS PAGE

Here in this page the user should provide the STUDENTS name, enrollment number, graduation year, department, email ID, and the semester of which the result is to be calculated.

- If the user has filled the details of the student then the user can click on the save and next button so that the information given by the user will be saved and will be directed to the next page.

HOMEPAGE

Homepage includes the logo, Straightforward and intuitive navigation of the website which is on the left-side of the page. The website has a search box that might be a valuable asset. We have the navigation menu which has been located with the items like Dashboard, Results, Help, About, Setting, logout and at the last profile of the user logged in. This will help the user to locate the information they are looking for.

STUDENTS RESULTS PAGE

In this Students Results page we get the details of the student which were filled in students details page and the result of the student in the particular semester calculated. Based on the credits entered in the table it will display the total credits earned by the student in that semester and a statement based on the CGPA.

- If the user wants to save the result then user can click on save into database button so that will be saved into database and then click on back to homepage button or else if the user don't want to save then directly click on back to homepage button.

CALCULATOR

This page gives the user the basic knowledge of what should be used (i.e. 10 as A, 8 as B, etc.) in order to insert the grade and this is the page where we calculate the CGPA of the student.

- The name of the user whoever has logged in will be displayed as Hello, Username with the profile image at the left top corner of the page.
- If the user want to go back to the homepage we have the button at the right top corner of the page.

COURSE TABLE

Here the user should give the enrollment number of the student whose CGPA has to be calculated, so that the course code and course name that has been registered by the student for that semester will be displayed, now the user should enter the course credits and the course grade of the student in each course. After this user should click on the calculate button, so that CGPA will be calculated.

RESULTS PAGE

This is the page where all the semester results of the student will be present. This page contains the navigation bar at the left side of the page and search box at top of the navigation menu and this navigation menu contains items like 1st year, 2nd year, 3rd year, 4th year, Final, Back and profile of the user. Some of the items has sub items as 1st semester and 2nd semester. For example if the user wants to see the 1st year 2nd semester result the user should click on 1st year then two options will be shown i.e. 1st semester and 2nd semester now the user should click on 2nd semester.

COMBINED RESULTS PAGE

In this page the results of all the students whoever CGPA of the particular semester is calculated will be displayed.

- Here if the user wants to print the results, they can click on the button PRINT or else they can go back to homepage by clicking the BACK TO HOMEPAGE button.

DASHBOARD

In this page the user can calculate the CGPA for any year any semester. This page also contains the navigation menu at the left side of the page and that navigation menu has a

search box and have items such as 1st year, 2nd year, 3rd year, 4th year, back and user profile and these items have again two sub items -1st semester, 2nd semester.

SYSTEM REQUIREMENTS

HARDWARE

MINIMUM REQUIREMENTS

Computer	4 GHz minimum, multi-core processor
Memory (RAM)	At least 4GB, preferably higher, and commensurate with concurrent usage
Hard disk space	At least 10 GB

SOFTWARE

MINIMUM REQUIREMENTS

Operating System	Windows 7 or later
Front end	CSS, HTML
Screen Resolution	1280x1024 or larger
Back end	PHP, MYSQL
Application window Size	1024x680 or larger

Here are a few snippets of the important part of code .

The image shows a Visual Studio Code editor window with the following components:

- File Explorer (Left):** Displays the project structure, including folders like `CSS_Files`, `includes`, `media`, and `result`, and files like `sem1.php`, `totalresults1_1.php`, and `server.php`.
- Editor (Center):** Shows the content of `totalresults1_1.php`. The code is as follows:

```
<center><table>
<thead>
<th>S/N</th>
<th>students name</th>
<th>enrollment number</th>
<th>year</th>
<th>semester</th>
<th>department</th>
<th>gpa</th>
</thead>
<tr>
<th>
<?php
    $c=1;
    $sql="select * from results1_1";
    $result= $con->query($sql);
    while($row = $result->fetch_assoc()) {
        echo "<td>".$c."</td>";
        echo "<br> ";
        $c++;
    }
    ?>
</th>
<th>
<?php
    $sql="select * from results1_1";
    $result= $con->query($sql);
```
- Output (Right):** Shows the rendered HTML output, which is an empty table with the same structure as the one in the code.

```
server.php - login - Visual Studio Code [Administrator]

EXPLORER
... sem1.php totalresults1_1.php M server.php X
OPEN EDITORS 1 UNSAVED includes > server.php
sem1.php yearly...
totalresults... M
server.php inclu...
LOGIN
CSS_Files
# main.css
# style.css
includes
main_table.php
server.php
media
result
includes_1
search
connection.php
finalresults.php M
functions.php
graph.php U
totalresults1_1.... M
totalresults1_2.... M
totalresults2_1.... M
OUTLINE
TIMELINE

1 <?php
2
3
4 include("connection.php");
5
6
7 if($_SERVER['REQUEST_METHOD'] == "POST")
8 {
9     //something was posted
10
11     $s_enroll_no = $_POST['s_enroll_no'];
12
13     $course_code_1 = $_POST['course_code_1'];
14     $course_name_1 = $_POST['course_name_1'];
15     $course_unit_1 = $_POST['course_unit_1'];
16     $course_grade_1 = $_POST['course_grade_1'];
17
18     $course_code_2 = $_POST['course_code_2'];
19     $course_name_2 = $_POST['course_name_2'];
20     $course_unit_2 = $_POST['course_unit_2'];
21     $course_grade_2 = $_POST['course_grade_2'];
22
23     $course_code_3 = $_POST['course_code_3'];
24     $course_name_3 = $_POST['course_name_3'];
25     $course_unit_3 = $_POST['course_unit_3'];
26     $course_grade_3 = $_POST['course_grade_3'];
27
```

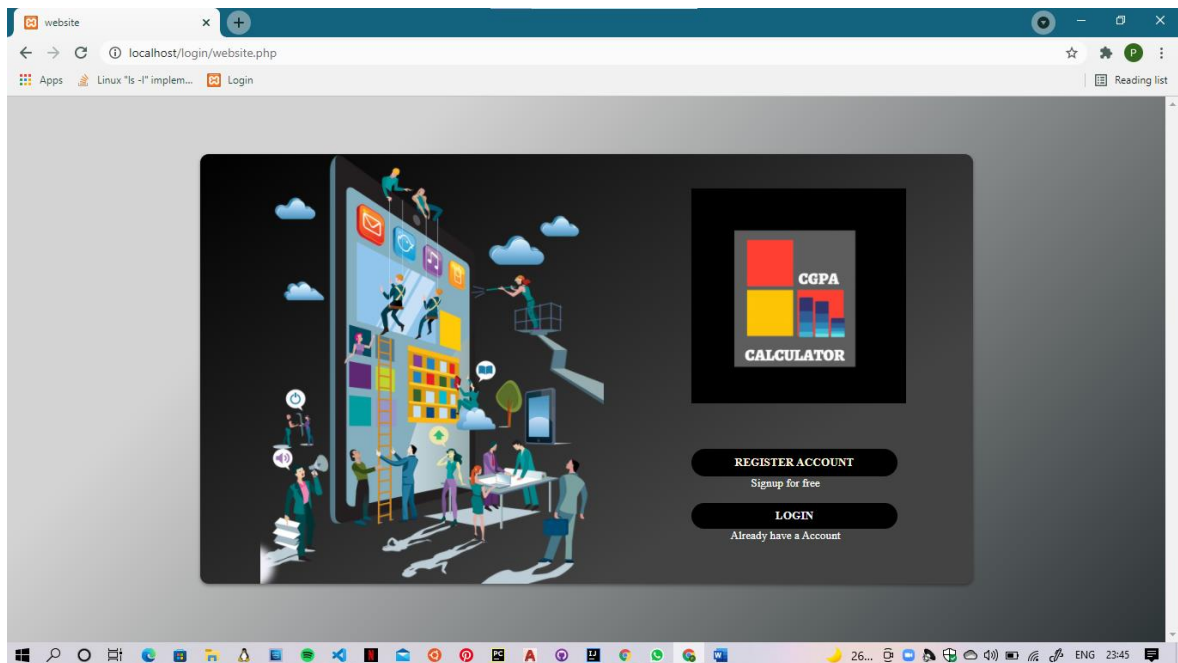
```
server.php - login - Visual Studio Code [Administrator]

EXPLORER
... sem1.php totalresults1_1.php M server.php X
OPEN EDITORS 1 UNSAVED includes > server.php
sem1.php yearly...
totalresults... M
server.php inclu...
LOGIN
CSS_Files
# main.css
# style.css
includes
main_table.php
server.php
media
result
includes_1
search
connection.php
finalresults.php M
functions.php
graph.php U
totalresults1_1.... M
totalresults1_2.... M
totalresults2_1.... M
OUTLINE
TIMELINE

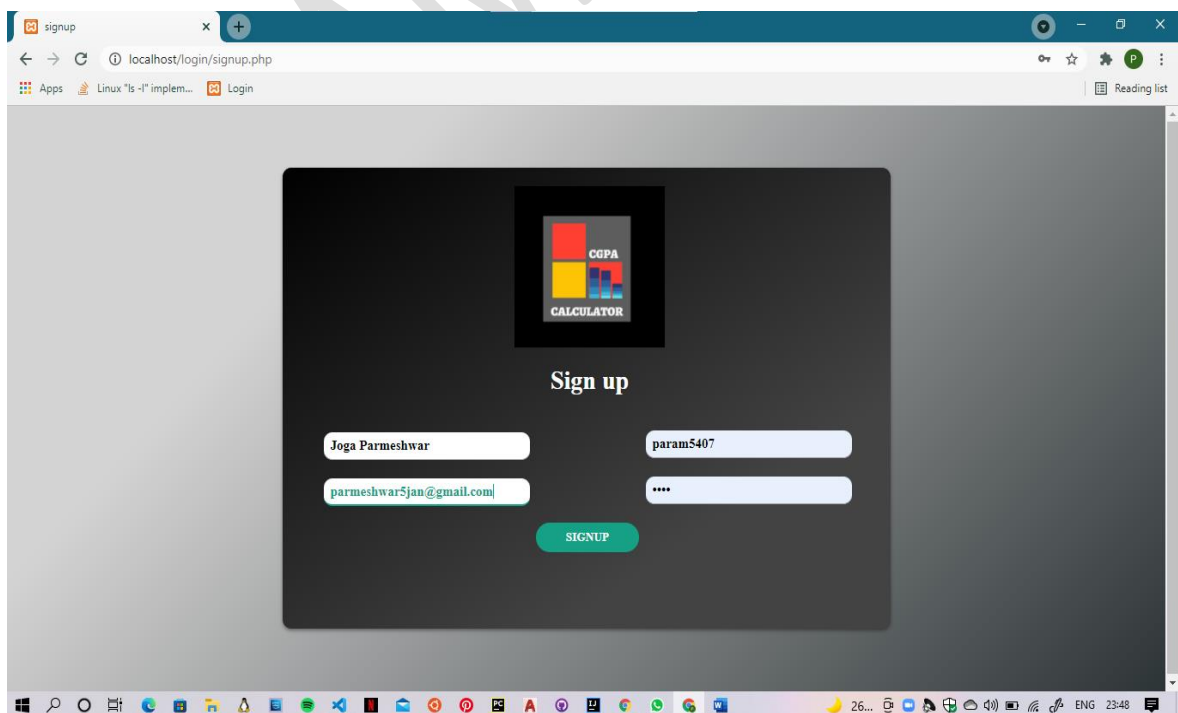
134 (float)$T_unit = ((int)$course_unit_1 + (int)$course_unit_2 + (int)$course_unit_3 + (int)$course_unit_4);
135
136 (float)$T_Score = (((int)$T_grade_1 * (int)$course_unit_1) + ((int)$T_grade_2 * (int)$course_unit_2) + ((int)$T_grade_3 * (int)$course_unit_3) + ((int)$T_grade_4 * (int)$course_unit_4));
137
138 (float)$GPA = (float)((float)$T_Score / (float)$T_unit);
139
140 echo "<h4>Total credits earned = <big style='color:#00FF00'>". $T_unit. "</big></h4>";
141
142
143
144
145
146
147 if ($GPA >= 9.5 and $GPA <= 10.00) {
148     echo "<tr><td><h4><big style='color:#00FF00'>Congratulation!</big> You re at <big style='color:#00FF00'>". $GPA. "</big>";
149 }
150 elseif ($GPA >= 8.50) {
151     echo "<tr><td><h4><big style='color:#00FF00'>Congratulation!</big> You re at <big style='color:#00FF00'>". $GPA. "</big>";
152 }
153 elseif ($GPA >= 7.50) {
154     echo "<tr><td><h4><big style='color:#00FF00'>Congratulation!</big> You re at <big style='color:#00FF00'>". $GPA. "</big>";
155 }
156 elseif ($GPA >= 6.00) {
157     echo "<tr><td><h4><big style='color:#00FF00'>Congratulation!</big> You re at <big style='color:#00FF00'>". $GPA. "</big>";
158 }
159 elseif ($GPA >= 4.75) {
160     echo "<tr><td><h4><big style='color:#00FF00'>Congratulation!</big> You re at <big style='color:#00FF00'>". $GPA. "</big>";
161 }
162
```

OUTPUT SCREENSHOTS

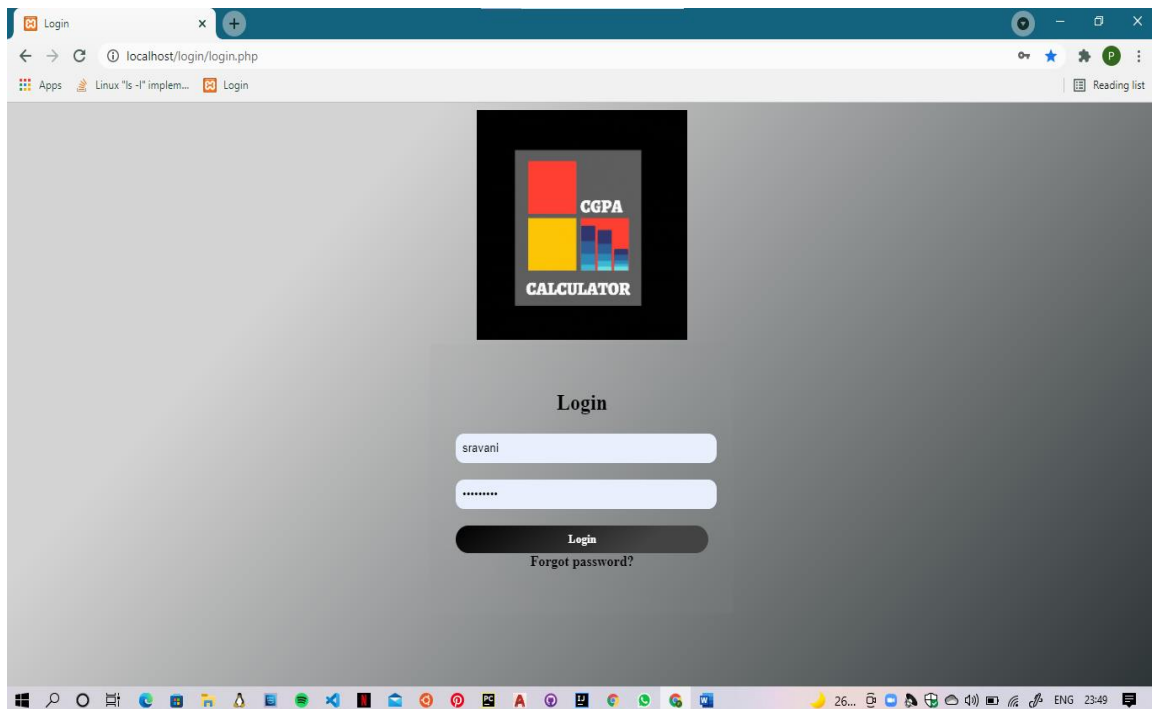
WEBSITE OPENING PAGE



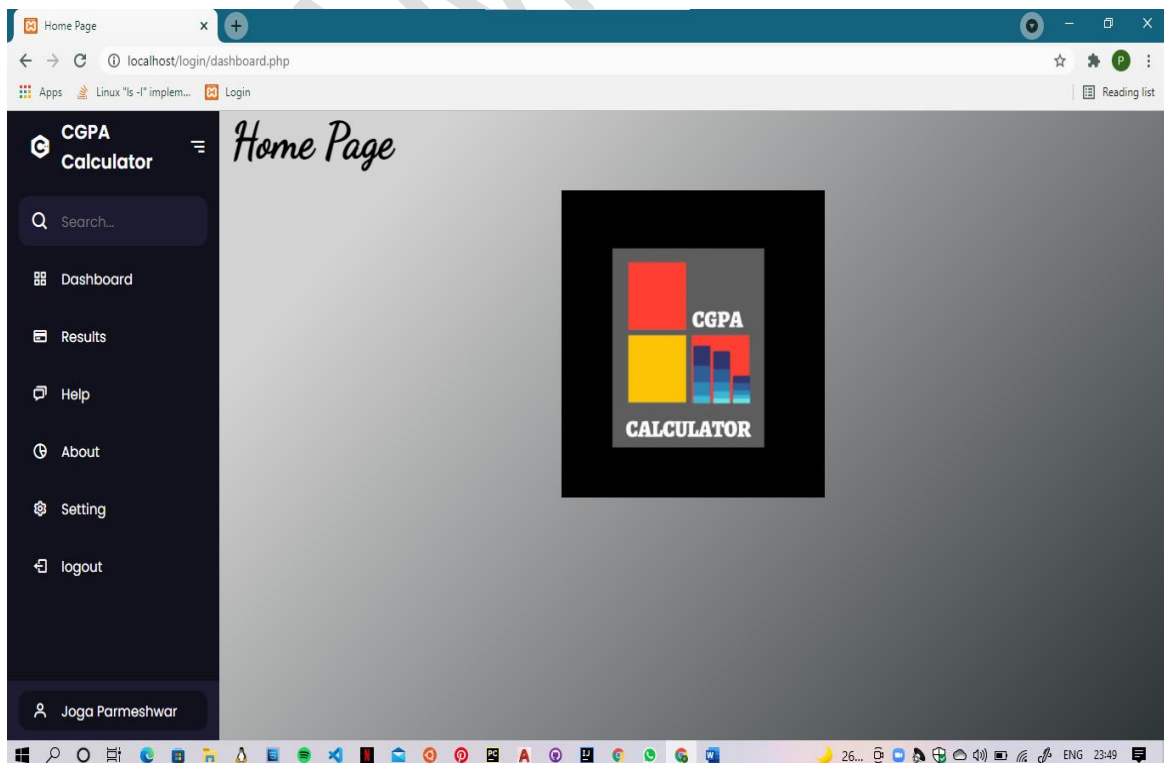
SIGN UP PAGE



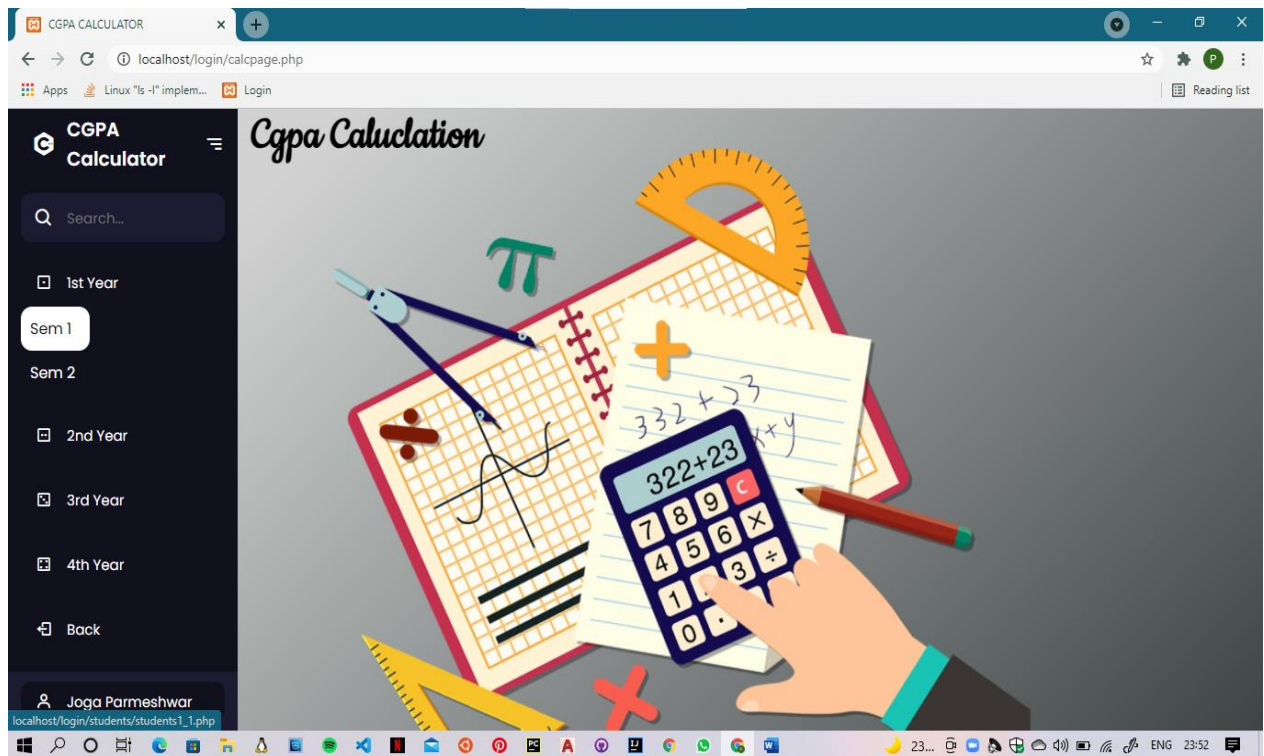
LOGIN PAGE



HOME PAGE



CGPA CALUCLATION PAGE



STUDENTS DETAILS ENTRY PAGE

The screenshot shows a web browser window with the title 'students1_1'. The address bar shows 'localhost/login/students/students1_1.php'. The page displays a form titled 'STUDENTS DETAILS' with the following fields:

STUDENTS DETAILS	
Name	Joga Parmeshwar
Enrollment Number	19STUCHH010236
Graduation Year	1
Semester	1
Department	CSE
Email ID	parameswara.rao19@ifheindia.org

A 'SAVE & NEXT' button is located at the bottom of the form.

COURSES DETAILS AND GRADES ENTRY PAGE

Enrollment Number
19STUCHH010236

S/N	COURSE CODE	COURSE NAME	COURSE CREDITS	COURSE GRADE
CLICK TO INSERT YOUR DATA				
1	CHEM111	Chemistry	3	A
2	EGL112	English Language Skills	3	A
3	MATH113	Linear Algebra	3	B
4	PHY114	Physics I	3	A
5	TAI116	Computer Programming I	3	A
6	EVS117	Environmental Science	2	A
7	TAI115	Engineering Graphics	4	Enter the course grade

CALCULATE

RESULT OF THE PARTICULAR STUDENT PAGE (PRINTABLE)

STUDENT'S RESULT

Name: Joga Parmeshwar
Enrollment Number: 19STUCHH010236
Department: CSE
Graduation Year: 1
Semester: 1
Email ID: parameswara.rao19@ifheindia.org

BACK TO HOMEPAGE

Total credits earned = '21'

Congratulations! You re at 'First Class' point of GPA. Keep It Up...

CGPA: 9.7142857142857

SAVE INTO DATABASE

COMBIND RESULTS OF PARTICULAR SEMESTER PAGE (PRINTABLE)

Results

localhost/login/result/totalresults1_1.php

RESULT'S OF 1st YEAR 1st SEMESTER

Q ENTER ENROLL NO SEARCH

S/N	students name	enrollment number	year	semester	department	gpa
1	CH VENKATESH	19STUCHH010022	1	1	CSE	9.14
2	Deepthi Rapaka	19STUCHH010030	1	1	CSE	9.14
3	KOTA SRAVANI	19STUCHH010146	1	1	CSE	9.43
4	Joga Parmeshwar	19STUCHH010236	1	1	CSE	10.00

Highest CGPA = 10.00
Average CGPA = 9.43
Lowest CGPA = 9.14

PRINT

BACK TO HOMEPAGE

FINAL CGPA OF ALL STUDENTS PAGE (PRINTABLE)

Final Results

localhost/login/result/finalresults.php

SEMESTER WISE GPA'S AND TOTAL CGPA

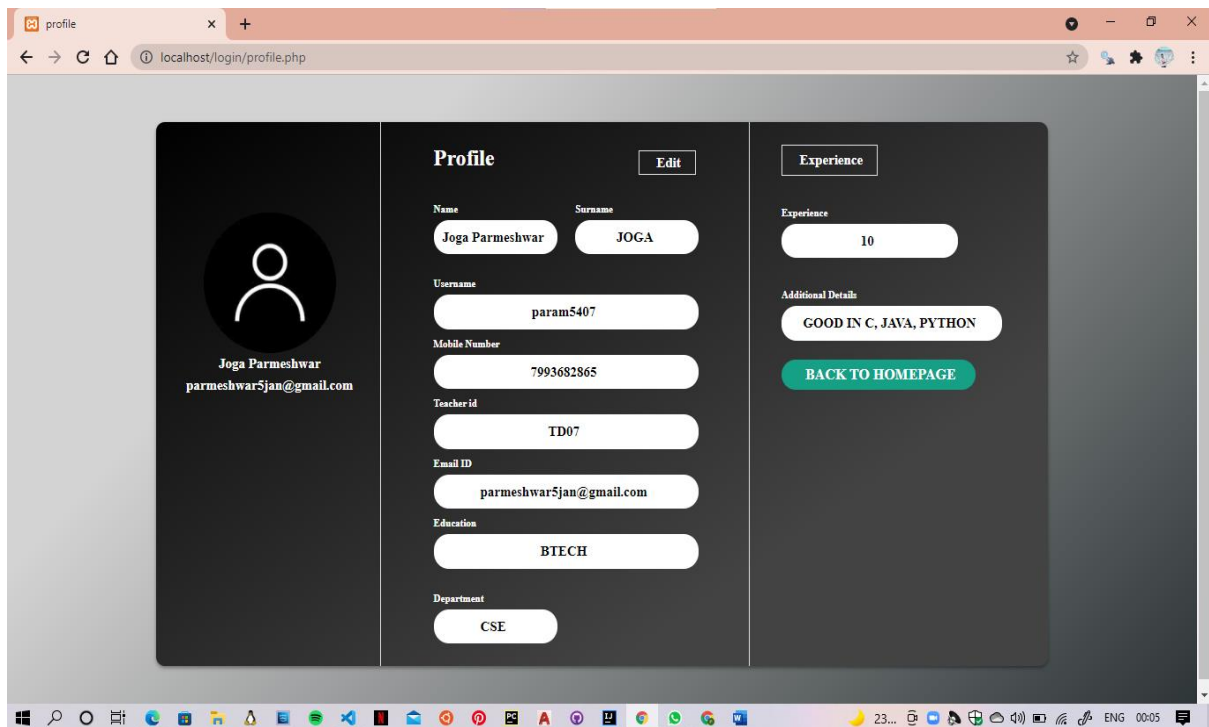
S/N	students name	enrollment number	SEM 1	SEM 2	SEM 3	SEM 4	SEM 5	SEM 6	SEM 7	SEM 8	CGPA
1	CH VENKATESH	19STUCHH010022	9.14	9.05	8.29	7.45	8.10	7.47	8.57	7.52	8.20
2	Deepthi Rapaka	19STUCHH010030	9.14	9.18	8.86	9.09	9.60	9.43	9.81	9.12	9.28
3	KOTA SRAVANI	19STUCHH010146	9.43	8.86	8.86	8.82	8.80	9.00	9.33	8.48	8.95
4	Joga Parmeshwar	19STUCHH010236	10.00	10.00	9.33	9.81	9.81	9.81	9.81	9.81	9.80

Highest CGPA = 9.80
Average CGPA = 9.06
Lowest CGPA = 8.20

PRINT

BACK TO HOMEPAGE

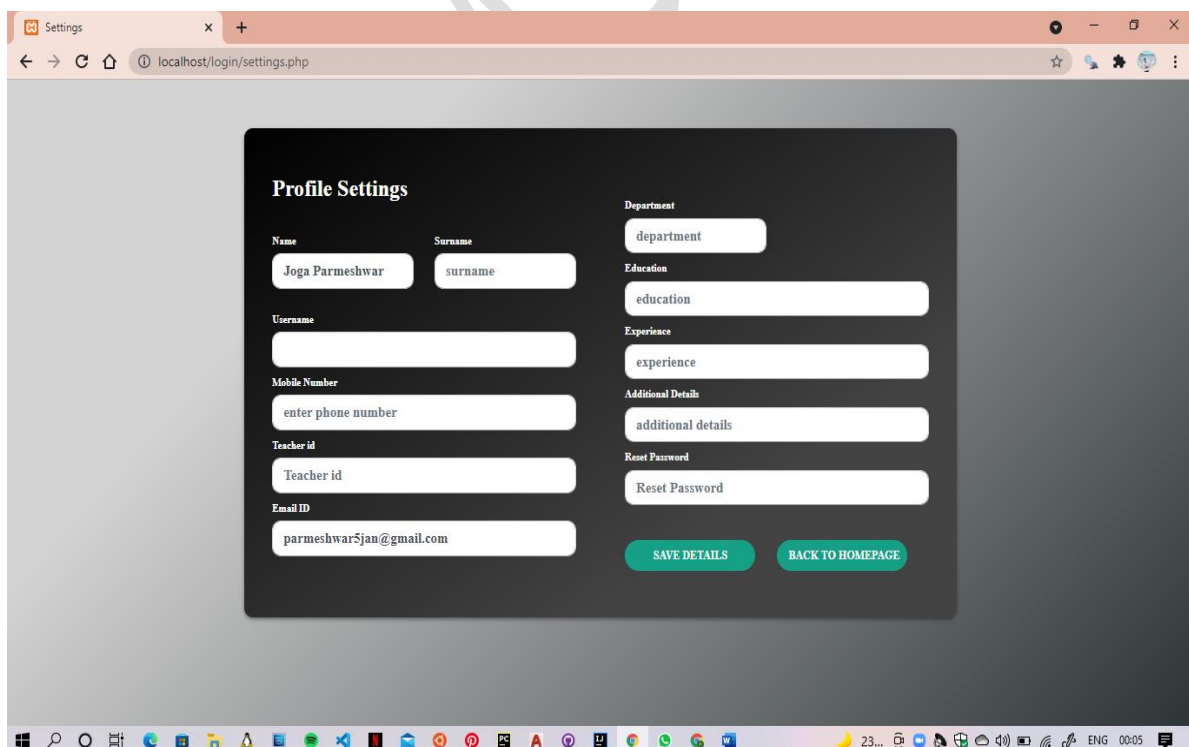
USER PROFILE PAGE



The screenshot shows a web browser window with the address bar displaying 'localhost/login/profile.php'. The page is titled 'Profile' and features a dark-themed layout. On the left, there is a circular profile picture placeholder with the text 'Joga Parmeshwar' and 'parmeshwar5jan@gmail.com' below it. To the right of the profile picture, there is a form with the following fields: Name (Joga Parmeshwar), Surname (JOGA), Username (param5407), Mobile Number (7993682865), Teacher id (TD07), Email ID (parmeshwar5jan@gmail.com), Education (BTECH), and Department (CSE). An 'Edit' button is located at the top right of the profile section. Further right, there is an 'Experience' section with a value of 10 and an 'Additional Details' section with the text 'GOOD IN C, JAVA, PYTHON'. A 'BACK TO HOMEPAGE' button is located at the bottom right of the profile section.

Field	Value
Name	Joga Parmeshwar
Surname	JOGA
Username	param5407
Mobile Number	7993682865
Teacher id	TD07
Email ID	parmeshwar5jan@gmail.com
Education	BTECH
Department	CSE
Experience	10
Additional Details	GOOD IN C, JAVA, PYTHON

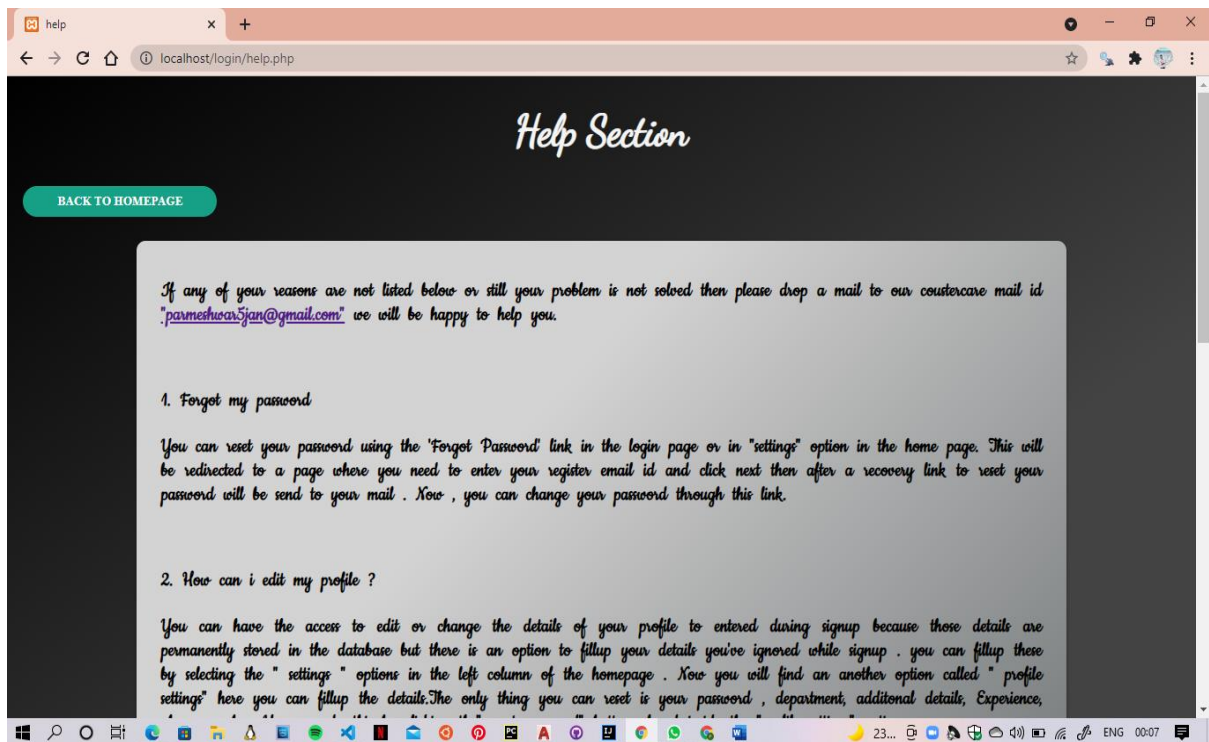
SETTINGS PAGE / EDIT DETAILS PAGE



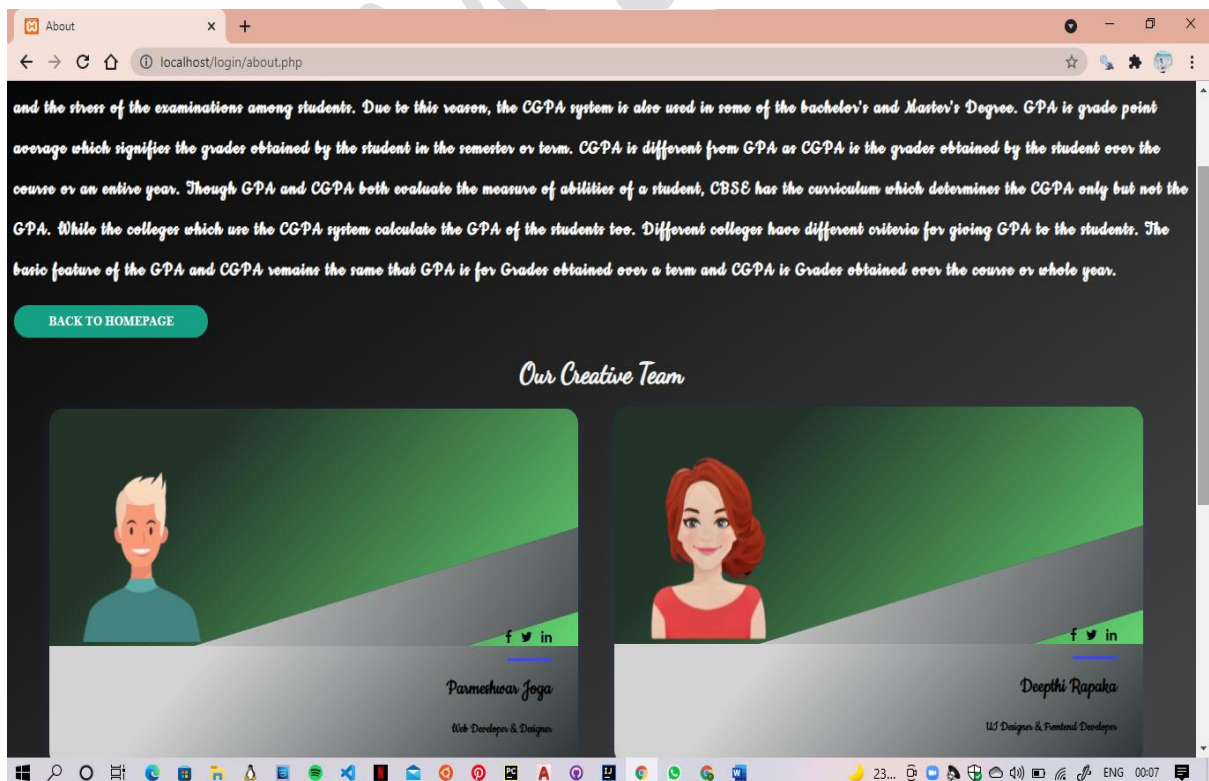
The screenshot shows a web browser window with the address bar displaying 'localhost/login/settings.php'. The page is titled 'Profile Settings' and features a dark-themed layout. It contains a form with the following fields: Name (Joga Parmeshwar), Surname (surname), Username (empty), Mobile Number (enter phone number), Teacher id (Teacher id), Email ID (parmeshwar5jan@gmail.com), Department (department), Education (education), Experience (experience), Additional Details (additional details), and Reset Password (Reset Password). There are two buttons at the bottom: 'SAVE DETAILS' and 'BACK TO HOMEPAGE'.

Field	Value
Name	Joga Parmeshwar
Surname	surname
Username	
Mobile Number	enter phone number
Teacher id	Teacher id
Email ID	parmeshwar5jan@gmail.com
Department	department
Education	education
Experience	experience
Additional Details	additional details
Reset Password	Reset Password

HELP SECTION



ABOUT SECTION/ TEAM



CONCLUSION

In assessing , the cgpa calculator website is far more different than all the other websites out there .its unique features makes the website more user-friendly . This calculator takes the details of students for the first semester and saves them for all eight semester which in turn gives us the final cgpa of a student of all semester .This feature makes the website more convenient to use and store . A few problems that can looked in this website are the only some parts of dta can be modified if a user enter wrong data and saves it into database so correcting that wrong entry in this website is a costly operation. In future we look forward to improve it as per the users requirement so that this will be a user friendly and very efficient website and many more changes can be brought into it so a large number of users work can done in this website in a simple go. similarly ,There's an other interesting feature that is multi purpose print option in which we can print the details of student , cgpa of a particular semester of a particular students or cgpa of all students in a particular semester or cgpa of a student in all the semesters .likewise ,we can even search for a specific student details by entering the role number in search bar . ultimately,all these features makes the website convenient and cordial for the user resulting in worry-free experience.

References

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