VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELGAUM-590014

An Internship Report

"Programming Using C++"

Submitted in partial fulfilment of the requirements for the award of the degree of

Bachelor of Engineering in Computer Science and Engineering

DAYANANDA SAGAR ACADEMY OF TECHNOLOGY AND MANAGEMENT

Udayapura, Kanakapura Road, Bangalore-560082

(Affiliated to Visvesvaraya Technological University, Belagavi, Approved by AICTE, New Delhi)

Department of Computer Science and Engineering

Accredited by NBA, NAAC A+, New Delhi

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TOPIC: RESULT MATCHING ☺

TOPICS DISCUSSED :

- ✓ INTRODUCTION.
- ✓ WHY THIS PROJECT.
- ✓ WHAT IS PROJECT ABOUT.
- ✓ PROJECT IMPLEMENTATION (CODE OF PROJECT).
- ✓ CONCLUSION.

What is CGPA?

Thinking about what CGPA is? Cumulative Grade Point Average is used for measuring the overall performance of an aspirant. CGPA calculation is done by determining the mean of grade points. CGPA is calculated on a scale of 8 or 10.

Indian universities use this system of assessment.

Based upon the CGPA system of assessment, specific grades are given for a range of scores. For example, 85-90 marks will have a Grade Point of 8.

Let us look at the table to understand how CGPA is calculated

Subject	Grade Points
A	7
B	8
C	9
Total	24

CGPA= 24/3= 8

What is GPA?

GPA (Grade Point Average) is a number indicating your average score in a single semester/unit or for the entire course duration. It is denoted by a number on a scale of 4 or 5.

This system of grading is more prevalent in international universities.

Note: The scale will shift on the basis of the grading system followed.

Here's how you calculate GPA:

GPA= Weighted Grade Points/Total Credit Hours

Courses	Credit Hrs	Grade	Point for Grades	Weighted Grade Pts.
Physics	4	A	4	4 x 4 = 16
Maths	3	B	3	3 x 3 = 9
English	3	B	3	3 x 3 = 9
Science	5	A	4	5 x 4 =20
	Total = 15			Total = 54

Your Grade Point Average will be 3.6 (54 divided by 15).

```
//C++ PROJECT (Infosys Springboard Internship)
/*This C++ PROGRAM is developed by BS Sakshin,Sambram Shetty and
Likhith DG for educational purpose */

#include <iostream>
#include <cstdlib>

using namespace std;

void calculateGPA();
void calculateCGPA();
void method();

int main()
{
    system("cls");
    int input;
    cout<<"-------------------------------------------------------------------------------"<<endl;
    cout<<"                    GPA & CGPA Calculator()             "<<endl;
    cout<<"-------------------------------------------------------------------------------\n"<<endl;

    cout<<"            MENU:"<<endl;
    cout<<"                   1. Calculate GPA (Grade Point Average)"<<endl;
    cout<<"                   2. Calculate CGPA (Cummulative Grade Point Average)"<<endl;
```

```
    cout<<"                    3. Method that is applied here for calclating GPA & CGPA"<<endl;
    cout<<"                    4. Exit Application"<<endl;
    cout<<"-------------------------------------------------------------------------------"<<endl;

sub:
    cout<<"Enter your choice: ";
    cin>>input;
    switch(input)
    {
        case 1:
                calculateGPA();
                break;

        case 2:
                calculateCGPA();
                break;
        case 3:
                method();
                break;
        case 4:
                exit(EXIT_SUCCESS);
                break;
        default:
```

```
cout<<"You have entered wrong input.Try again!\n"<<endl;
            goto sub;
            break;
    }
}

void calculateGPA()
{
    int q;
    system("cls");
    cout<<"-------------- GPA Calculating -----------------"<<endl;
    cout<<" How many subject's points do you want to calculate? : ";
    cin>>q;

    float credit [q];
    float point [q];
cout<<endl;
    for(int i=0;i<q;i++)
    {
        cout<<"Enter the credit for the subject "<<i+1<<": ";
        cin>>credit[i];
        cout<<endl;
        cout<<"Enter the point of the subject "<<i+1<<": ";
        cin>>point[i];
```

```
cout<<"-----------------------------------\n\n"<<endl;
    }
    float sum=0;
    float tot;
    for(int j=0;j<q;j++)
    {
        tot=credit[j]*point[j];
        sum=sum+tot;
    }

   float totCr=0;
      for(int k=0;k<q;k++)
      {
          totCr=totCr+credit[k];
      }
      cout<<"\n\n\nTotal Points: "<<sum<<" . Total Credits: "<<totCr<<" .Total GPA: "<<sum/totCr<<" ."<<endl;
      sub:
      int inmenu;
      cout<<"\n\n\n1. Calculate Again"<<endl;
      cout<<"2. Go Back to Main Menu"<<endl;
      cout<<"3. Exit This App \n\n"<<endl;
      cout<<"Your Input: "<<endl;
      cin>>inmenu;
```

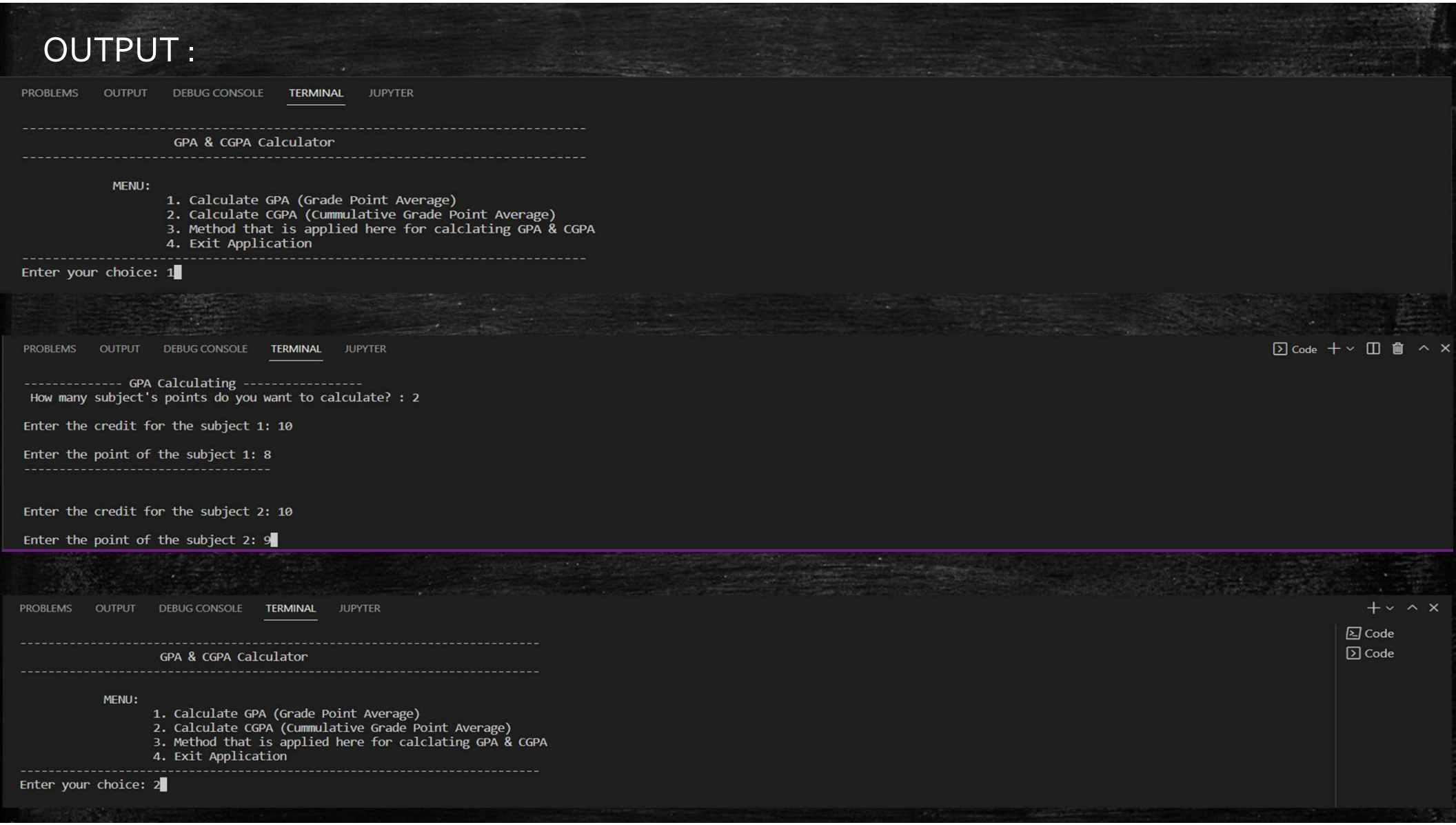
```
switch(inmenu)
    {
        case 1:
                calculateGPA();
                break;
        case 2:
                main();
                break;
        case 3:
                exit(EXIT_SUCCESS);

        default:
              cout<<"\n\nYou have Entered Wrong Input!Please Choose Again!"<<endl;
              goto sub;
    }
}
 void calculateCGPA()
 {
     system("cls");
     int l;
     cout<<"-------------- CGPA Calculating -----------------\n\n"<<endl;
     cout<<"How many semester results do you want input? :";
     cin>>l;
```

```
cout<<"\n\n"<<endl;
    float semrs[l];
    int i;

    for(i=0;i<l;i++)
    {
        cout<<" Enter Semester "<<i+1<<" Result(GPA): ";
        cin>>semrs[i];
        cout<<"\n"<<endl;
    }
    float semtot=0;
    for(int j=0;j<l;j++)
    {
        semtot=semtot+semrs[j];
    }
    cout<<"******** Your CGPA is "<<semtot/l<<"
**********"<<endl;
    sub:
       int inmenu;
       cout<<"\n\n\n1. Calculate Again"<<endl;
       cout<<"2. Go Back to Main Menu"<<endl;
       cout<<"3. Exit This App \n\n"<<endl;
       cout<<"Your Input: "<<endl;
       cin>>inmenu;
```

```
switch(inmenu)
    {
        case 1:
                calculateCGPA();
                break;
        case 2:
                main();
                break;
        case 3:
                exit(EXIT_SUCCESS);

        default:
              cout<<"\n\nYou have Entered Wrong Input!Please Choose Again!"<<endl;
              goto sub;

    }

 }

 void method()
 {
    system("cls");
    cout<<"--------------- Method of Calculating GPA & CGPA ---------------\n\n"<<endl;
```

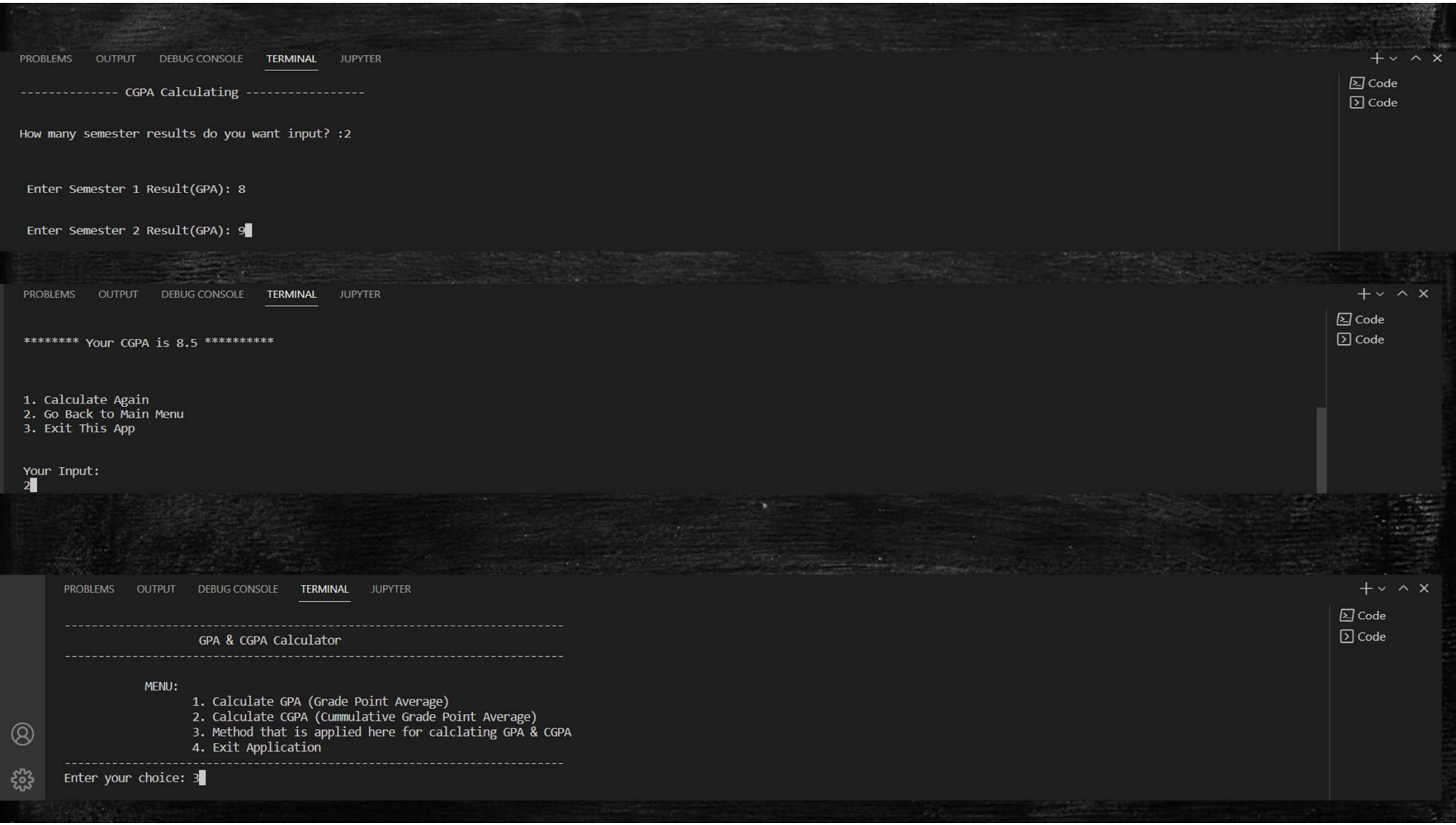
```
cout<<" GPA= Sum of (Credit*Point) / total of credits \n"<<endl;
    cout<<" CGPA=  Sum of GPA / number of semesters "<<endl;
    cout<<"-------------------------------------------------------------------\n\n"<<endl;

    sub:
    int inmenu;
    cout<<"1. Go Back to Main Menu"<<endl;
    cout<<"2. Exit This App \n\n"<<endl;
    cout<<"Your Input: "<<endl;
    cin>>inmenu;

    switch(inmenu)
    {
        case 1:
                main();
                break;
        case 2:
                exit(EXIT_SUCCESS);

        default:
              cout<<"\n\nYou have Entered Wrong Input!Please Choose Again!"<<endl;
              goto sub;
         }
};
```

OUTPUT :



```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  JUPYTER

------------------------------------------------------------------------
                  GPA & CGPA Calculator
------------------------------------------------------------------------

            MENU:
                  1. Calculate GPA (Grade Point Average)
                  2. Calculate CGPA (Cummulative Grade Point Average)
                  3. Method that is applied here for calclating GPA & CGPA
                  4. Exit Application
------------------------------------------------------------------------
Enter your choice: 1

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  JUPYTER                Code

 ---------- GPA Calculating -----------------
  How many subject's points do you want to calculate? : 2

 Enter the credit for the subject 1: 10

 Enter the point of the subject 1: 8
 ----------------------------------


 Enter the credit for the subject 2: 10

 Enter the point of the subject 2: 9

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  JUPYTER

------------------------------------------------------------------------
                  GPA & CGPA Calculator
------------------------------------------------------------------------

            MENU:
                  1. Calculate GPA (Grade Point Average)
                  2. Calculate CGPA (Cummulative Grade Point Average)
                  3. Method that is applied here for calclating GPA & CGPA
                  4. Exit Application
------------------------------------------------------------------------
Enter your choice: 2
```

Code
Code


PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER
---------- CGPA Calculating ----------
How many semester results do you want input? :2
Enter Semester 1 Result(GPA): 8
Enter Semester 2 Result(GPA): 9
Code
Code
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER
******** Your CGPA is 8.5 **********
1. Calculate Again
2. Go Back to Main Menu
3. Exit This App
Your Input:
2
Code
Code
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL JUPYTER
GPA & CGPA Calculator
MENU:
1. Calculate GPA (Grade Point Average)
2. Calculate CGPA (Cummulative Grade Point Average)
3. Method that is applied here for calclating GPA & CGPA
4. Exit Application
Enter your choice: 3
Code
Code

EXIT OF THE PROGRAM.


Thank you
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