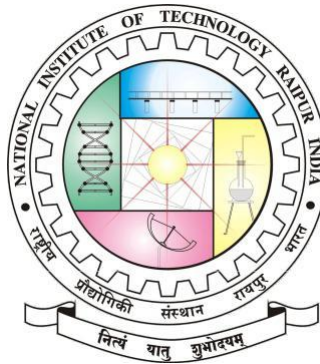


National Institute Of Technology, Raipur



Term-Project-Report on “School Report Card Generator”

Submitted by:-
Name: Vivek Kumar
Roll no: 21111071
Branch : Biomedical
Semester : 1st
NIT Raipur, Chhattisgarh

Under the Supervision
of:-
Ms. Sheekha Babar
Department of :
Computer Programming
NIT Raipur, Chhattisgarh

Acknowledgment

At the very outset of this report. I would like to extend my sincere & heartfelt obligations towards all the personage who has helped me in this endeavor. Without their active guidance, help, cooperation & encouragement, I would not have made headway in the project.

I would like to express my special thanks of gratitude to my teacher “ **Sheekha Babar** ” for your guidance and support and also this College “ **NIT Raipur** ” for giving me the golden opportunity to do this wonderful project on the topic ”School Report Card Generator”, which also helped me in doing a lot of research and I came to know about so many new things.

I am really thankful to them.

Secondly, I would also like to thank my Parents and Friends who helped me a lot in Finishing this Project within a Limited time.

- **Vivek Kumar**

Date of Submission: 04-Apr-2022

Abstract

The sole intention behind the consideration of this project is to generate and manage the work of Report Card Generation Simply and Efficiently. This Project is developed considering The Report card generation with keeping the context of the work of Teachers in Mind. Here, the Data of the Student is Stored and Printed on the Screen as Well as Printable File (.doc) Format for the Ease of Analysing and Sharing the Progress Report of a Student.

Contents

Acknowledgment	2
Abstract	3
Contents	4
Introduction	5
Requirements	6
Block Diagram	7
Source Code	8
Working and output	14
Conclusion	22
References	22

Introduction

This “School Report Card Generator” Project is Designed for generating the Annual Report card of a Student Digitally, it can also be used for generating Semi-annually/Weekly Periodically Report cards of a Student with some Modification in the Code.

Once we enter all the Details, The Marks, percentage, and Details of the Student are automatically generated by the software on the Screen as well as in the Printable Document File Format(.doc).

In this Software, I had included many Features like-

- ❖ Well Designed an Interactive user Interface.
- ❖ The instruction page is Included at HomePage, where you can see all the Instructions to Operate this C++ Software.
- ❖ You don't have to press Enter Button while Entering your Choice.
- ❖ you have to Enter the Marks of 6 Compulsory subjects first then you can add more Subjects (with their marks) as much as you can.
- ❖ Printable (.doc) File is generated automatically with Parent's sign, Teacher's sign, and Remarks section in them.
- ❖ Space between Texts is Managed with Code in Both Console output as well as in doc file.

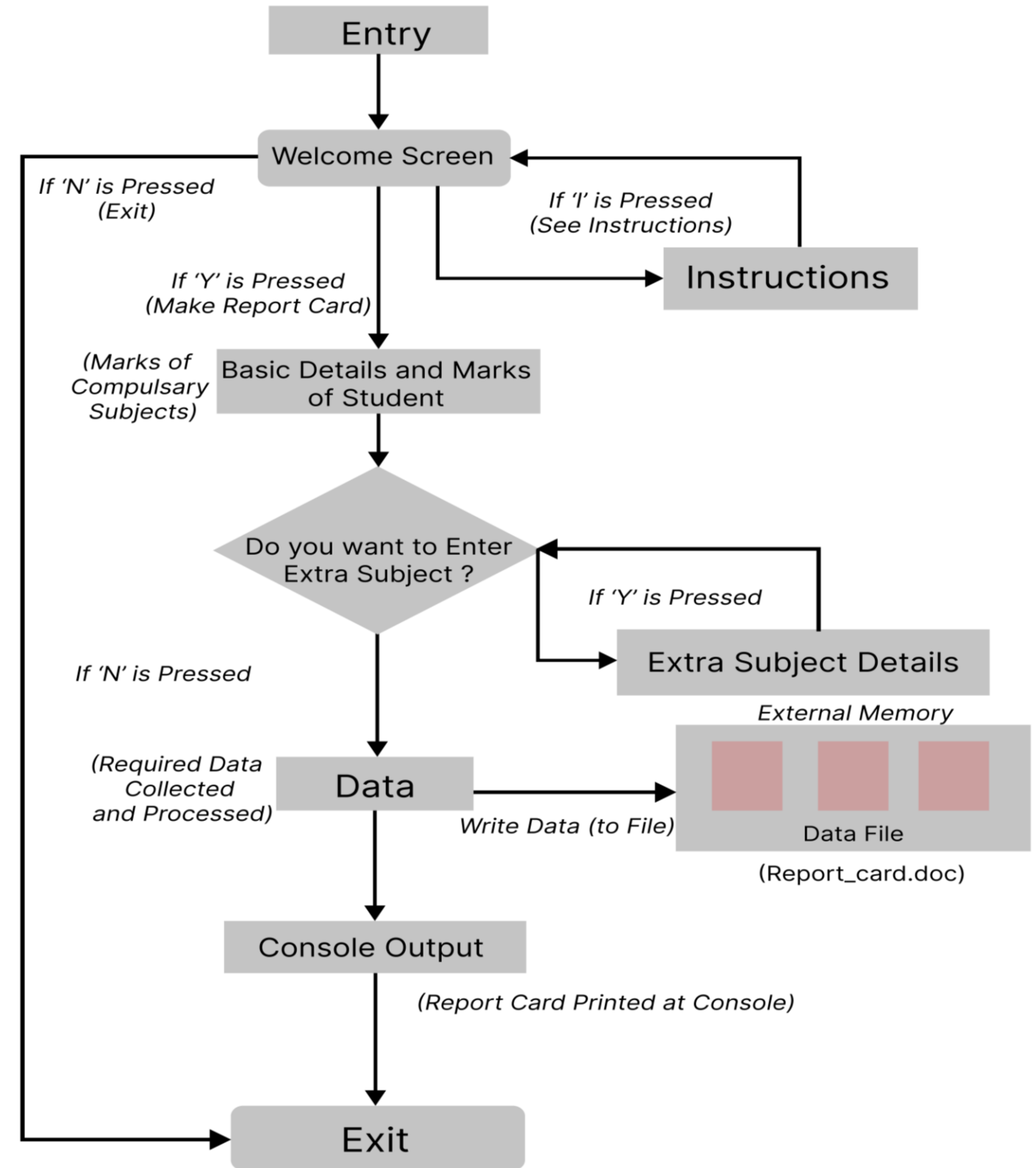
Requirements

Hardware : Any Laptop or PC having minimum specifications(4GB RAM recommended) with Storage and Operating System Supporting C++ IDE.

Software : Dev C++ or Code::Blocks or VS Code with Mingw Compiler.

Note :- This Program will not Run on Older versions of C++ Compiler like Turbo C+

Block – Diagram



Source Code

```
//Program Made By Vivek Kumar (21111071) BME'25 on "School Report Card Generator".

#include<iostream>
#include<stdio.h>
#include<conio.h>
#include<fstream>
#include<string>
#include<iomanip>
using namespace std;

char dash='-';

void line();
void headline();
void message();

class Run
{
    private:

        string sub[40] = {"Maths","Physics","Basic-Biomed","Data-Structure","Computer-
programming","Environment-&-Ecology" };
        int enroll;
        char name[40]={0};
        float percentage,marks[40]={0},total;
        char more;
        int slen,i,j,k,a,b,x;

    public:

        void input()
        {
            //Input Taking Starts .....

            cout<<"Please Enter the Details of the Student Below ! \n";
            line();
            cout<<"Name of the Student : ";
            cin.getline(name,40);
            cout<<"Enrollment Number of the Student : ";
            cin>>enroll;
            line();
            cout<<"Enter the Marks of Compulsary Subjects Below !\n\n";
```



```

    for (int x = 0; x < 6; x++){
        cout <<"\nEnter the Marks of "<<sub[x] <<": ";
        cin>>marks[x];
    }

    do{
        cout<<"\n\nDo You Want to Enter More Subjects (Y/N) : ";
        {
            more=getche();
            // char ch=more;
            x=6;
            while(more=='y' || more=='Y')
            {
                system("cls");
                headline();
                cout<<"\n\n\t\tENTER THE Name and Marks Details of Additional Subject :- ";
                cout<<"\n\n\n\t\tEnter the "<<x+1<<"th Subject Name : ";
                cin>>(sub[x]);
                cout<<"\n\n\t\tEnter the Marks of '\"<<sub[x]<<\"' Subject : ";
                cin>>marks[x];
                x++;
                cout<<"\n\n\n\t\tDo you want to add more Subjects (y/n) : ";
                more=getche();
            }
        }

        }while(more=='y' || more=='Y');
    }

void output()
{
    total=0;
    for(a=1;a<=x;a++)
    {
        total=total+marks[a-1];
    }
    percentage=(total/x);
    //Console Output Printing Starts.....
    system("cls");
    headline();
    cout<<"Name of the Student : "<<name<<endl;
    cout<<"Enrollment Number : "<<enroll<<"\t\t\t\tYear : 2021-2025"<<endl;
    line();
    cout<<"SL.No\t"<<"Subject\t\t\t"<<"\t\tFull Marks\t"<<" Marks Obtained\n";
    line();
    for(i=0;i<=x-1;i++)
    {
        slen=sub[i].length();
        if(slen>0 && slen<8){
            cout<<endl<<" "<<i+1<<"\t"<<sub[i]<<"\t\t\t\t\t "<<100<<"\t\t\t"<<marks[i]<<endl;

```

```

    }
    else if (slen>7 && slen<16){
        cout<<endl<<" "<<i+1<<"\t"<<sub[i]<<"\t\t\t\t\t " <<100<<"\t\t\t\t"<<marks[i]<<endl;
    }
    else if (slen>15 && slen<24){
        cout<<endl<<" "<<i+1<<"\t"<<sub[i]<<" \t\t\t\t\t " <<100<<"\t\t\t\t"<<marks[i]<<endl;
    }
    else {
        cout<<endl<<" "<<i+1<<"\t"<<sub[i]<<" \t\t\t\t\t " <<100<<"\t\t\t\t"<<marks[i]<<endl;
    }
}
line();
cout<<"\n\nTotal number of Subjects : "<<x;
cout<<"\nTotal Marks : "<<total<<" Out of "<<x*100;
cout<<"\n% Marks Obtained : "<<setprecision(3)<<percentage<<"%";
cout<<"\n\nRemarks : ";
cout<<"\n\n\n\n\tParent's Sign";
cout<<"\t\t\t\t\tClass Teacher's Sign\n";
cout<<"\n\n\n\n\t***** Best wishes For your Future ! *****";

//Now Console Input & OutPut ends and File Output Starts.....

{
    ofstream fout;
    fout.open("Report_card.doc",ios::out);
    fout<<setw(72)<<setfill('-')<<dash<<endl;
    fout<<"\t\t\t\t\tAnnual Report Card \n";
    fout<<setw(72)<<setfill('-')<<dash<<endl;
    fout<<endl<<"\t\t\t\tNational Institute of Technology ";
    fout<<endl<<"\t\t\t\t\tG.E. Road,Raipur";
    fout<<endl<<"\t\t\t\t\t492010"<<endl;
    //
    fout<<setw(72)<<setfill('-')<<dash<<endl;
    fout<<"Name of the Student is : "<<name<<endl;
    fout<<"Enrollment Number : "<<enroll<<"\t\t\t\tYear : 2021-2025"<<endl;
    fout<<setw(72)<<setfill('-')<<dash<<endl;
    fout<<"SL.No\t"<<"Subject\t\t\t\t\t"<<"Full Marks "<<" \tMarks Obtained\n";
    fout<<setw(72)<<setfill('-')<<dash<<endl;
    for(i=0;i<=x-1;i++)
    {
        slen=sub[i].length();
        if(slen>0 && slen<6){
            fout<<endl<<" "<<i+1<<"\t"<<sub[i]<<"\t\t\t\t\t\t\t\t"<<100<<"\t\t\t\t"<<marks[i]<<endl;
        }
        else if (slen>5 && slen<12){
            fout<<endl<<" "<<i+1<<"\t"<<sub[i]<<"\t\t\t\t\t\t\t"<<100<<"\t\t\t\t"<<marks[i]<<endl;
        }
        else if (slen>11 && slen<18){
            fout<<endl<<" "<<i+1<<"\t"<<sub[i]<<"\t\t\t\t\t\t"<<100<<"\t\t\t\t"<<marks[i]<<endl;
        }
    }
}

```



```

cout<<"                                                                 "<<endl;
cout<<"      [Y] Make Report-Card      [N] EXIT      "<<endl;
cout<<"      ~~~~~~<<endl;
cout<<"                                                                 "<<endl;
cout<<"      [I] INSTRUCTIONS      "<<endl;
cout<<"      ~~~~~~<<endl;
cout<<"....."<<endl;

    choice=getche();
{
    if(choice=='y' || choice=='Y')
    {
        system("cls");
        headline();
        r.input();
        r.output();
    }
    if(choice=='i' || choice=='I')
    {
        system("cls");
        message();
        choice='y';
    }

    else{
        exit (0);
    }
}

    getch();
}
return 0;
}

void line()
{
    cout<<setw(85)<<setfill('-')<<dash<<endl;
}

void headline()
{
    line();
    cout<<"\t\t\t\tAnnual Report Card \n";
    line();
    cout<<endl<<"\t\t\t National Institute of Technology ";
    cout<<endl<<"\t\t\t\t G.E. Road,Raipur";
    cout<<endl<<"\t\t\t\tChattisgarh-492010"<<endl;
    line();
}

```

```
void message()
{
    headline();
    cout<<"\n\n\t INSTRUCTIONS TO THE Report Card Generator ";
    cout<<"\n\n\n\t1. When You are Ready to Make Report-Card ,PRESS 'Y' in Welcome Screen.";
    cout<<"\n\n\t2. Enter the Details of Student CAREFULLY ";
    cout<<"\n\n\t3. Enter the Marks of 6 Compulsary Subjects. ";
    cout<<"\n\n\t4. Add Extra Subjects and Marks if You Want. ";
    cout<<"\n\n\t5. Do not Use Space in Subject Name, Use Special Characters Instead ";
    cout<<"\n\n\t6. Share or Print the \"Report_card.docx\" File Generated in same Folder. ";
    cout<<"\n\n\n\t\t Kindly Press any button to Continue..... ";
}
```

***** The Source Code Ends Here ! *****

Working and Output

➔ When the Software Starts Home/Welcome Screen will appear first like below.

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

.....

-----
-----

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

-----
-----

PLEASE CHOOSE ANY OPTION FROM BELOW, THEN PRESS THE KEY.....

[Y] Make Report-Card      [N] EXIT
~~~~~                    ~~~~~

[I] INSTRUCTIONS
~~~~~

.....
```

➔ You will be Given Three options (Make Report-Card), (Instructions), and (Exit).

➔ Press i or I to read the instructions of use of this Software then press any key, you will be redirected to the same Welcome Screen.

```
PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL

-----
                        Annual Report Card
-----

                National Institute of Technology
                  G.E. Road,Raipur
                  Chattisgarh-492010
-----

INSTRUCTIONS TO THE Report Card Generator

1. When You are Ready to Make Report-Card ,PRESS 'Y' in Welcome Screen.
2. Enter the Details of Student CAREFULLY
3. Enter the Marks of 6 Compulsary Subjects.
4. Add Extra Subjects and Marks if You Want.
5. Do not Use Space in Subject Name, Use Special Characters Instead
6. Share or Print the "Report_card.doc" File Generated in same Folder.

Kindly Press any button to Continue..... █
```

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

.....

-----
-----

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

-----
-----

PLEASE CHOOSE ANY OPTION FROM BELOW, THEN PRESS THE KEY.....

[Y] Make Report-Card      [N] EXIT
~~~~~                     ~~~~~

[I] INSTRUCTIONS
~~~~~

.....
█
```

➔ Press n or N, if you want to Exit from here and Close the Program.

➔ Press y or Y to begin the Process of Report card Making, you will see the Screen like Below.

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

-----

Annual Report Card

-----

National Institute of Technology
G.E. Road,Raipur
Chattisgarh-492010

-----

Please Enter the Details of the Student Below !

-----

Name of the Student : █
```


➔ Now, First Enter the Basic Details of the Student then The Marks of the Compulsory Subjects.

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

-----
                        Annual Report Card
-----

                        National Institute of Technology
                        G.E. Road,Raipur
                        Chattisgarh-492010
-----

Please Enter the Details of the Student Below !
-----

Name of the Student : Vivek Kumar
Enrollment Number of the Student : 21111071
-----

Enter the Marks of Compulsary Subjects Below !

Enter the Marks of Maths:  90

Enter the Marks of Physics:  88

Enter the Marks of Basic-Biomed:  86

Enter the Marks of Data-Structure:  92

Enter the Marks of Computer-programming:  91

Enter the Marks of Environment-&-Ecology:  94

Do You Want to Enter More Subjects (Y/N) : █
```

➔ Now if you want to Add more Subjects with their Marks, simply press y or Y, otherwise, Press n or N to Proceed.

➔ If you will press n or N, you will get the Result on the Console and the same Result Format of 6 compulsory subjects in doc file with Name “Report_card.doc” in the same folder.

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

-----
                        Annual Report Card
-----

                        National Institute of Technology
                        G.E. Road,Raipur
                        Chattisgarh-492010
-----
Name of the Student : Vivek Kumar
Enrollment Number : 21111071                      Year : 2021-2025
-----
SL.No   Subject                               Full Marks   Marks Obtained
-----
1       Maths                                100           90
2       Physics                              100           88
3       Basic-Biomed                         100           86
4       Data-Structure                       100           92
5       Computer-programming                 100           91
6       Environment-&-Ecology                 100           94
-----

Total number of Subjects : 6
Total Marks : 541 Out of 600
% Marks Obtained : 90.2%

Remarks :

Parent's Sign                                Class Teacher's Sign

***** Best wishes For your Future ! *****
PS C:\Users\VIVEK KUMAR\OneDrive\Documents\cpp_program> |
```

➔ If you will press y or Y, you will move to the next screen where you can add as many Extra subjects as you want. Simply by pressing y or Y.

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

-----
                        Annual Report Card
-----

National Institute of Technology
G.E. Road,Raipur
Chattisgarh-492010
-----

ENTER THE Name and Marks Details of Additional Subject :-

Enter the 7th Subject Name : Sports

Enter the Marks of 'Sports' Subject : 96

Do you want to add more Subjects (y/n) : █
```

➔ If You want to add more press y or Y and add as many subjects as you want with their corresponding marks.

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

-----
                        Annual Report Card
-----

National Institute of Technology
G.E. Road,Raipur
Chattisgarh-492010
-----

ENTER THE Name and Marks Details of Additional Subject :-

Enter the 8th Subject Name : Communications

Enter the Marks of 'Communications' Subject : 92

Do you want to add more Subjects (y/n) : █
```

- ➔ When you end with the number of Subjects, Press n or N and you will get the Result of the Student on the Console as well as in the doc file named “Report_card.doc” in the same Folder.

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

-----
                        Annual Report Card
-----

                        National Institute of Technology
                        G.E. Road,Raipur
                        Chattisgarh-492010
-----
Name of the Student : Vivek Kumar
Enrollment Number : 21111071                                Year : 2021-2025
-----
SL.No   Subject                                     Full Marks   Marks Obtained
-----
  1      Maths                                     100           90
  2      Physics                                   100           88
  3      Basic-Biomed                             100           86
  4      Data-Structure                           100           92
  5      Computer-programming                     100           91
  6      Environment-&-Ecology                     100           94
  7      Sports                                    100           96
  8      Communications                           100           92
  9      Arts                                      100           87
 10      Extra-Curricular-Activities               100           85
 11      Discipline                               100           86
-----

Total number of Subjects : 11
Total Marks : 987 Out of 1100
% Marks Obtained : 89.7%

Remarks :

                        Parent's Sign                                Class Teacher's Sign

***** Best wishes For your Future ! *****
PS C:\Users\VIVEK KUMAR\OneDrive\Documents\cpp_program>
```

➔ Now you will get the Automatically Generated Report card like This.

Annual Report Card

National Institute of Technology
G.E. Road, Raipur
492010

The name of the Student is : Vivek Kumar

Enrollment Number : 21111071

Year : 2021-2025

SL.No	Subject	Full Marks	Marks Obtained
1	Maths	100	90
2	Physics	100	88
3	Basic-Biomed	100	86
4	Data-Structure	100	92
5	Computer-programming	100	91
6	Environment-&-Ecology	100	94
7	Sports	100	96
8	Communications	100	92
9	Arts	100	87
10	Extra-Curricular-Activities	100	85
11	Discipline	100	86

Total number of Subjects : 11

Total Marks : 987 Out of 1100

Percentage marks obtained : 89.7%

Remarks: _____

Parent's Sign

Class Teacher's Sign

We Wish Best For Your Future

***** Learn and Serve *****

Conclusion

The Report Card Generator Software can Manage a Large Number of Records of Results of Students while generating the Result and Storing and Sharing the Result in Physical Format in a very well Documented Manner.

With Some Customization, it can be used in many ways in Different Situations.

Thus, This Software has many applications in real life.

References

https://youtube.com/playlist?list=PLu0W_9lII9agpFUAIPFe_VNSIXW5uE0YL

[COMPUTER PROGRAMING BIO-MEDICAL A \(google.com\)](#)

Links

[This Project is Uploaded to my Github Repository.](#)