Mini Project Report

on

STUDENT RECORD SHEET
Submitted as partial fulfillment for the award of

BACHELOR OF TECHNOLOGY

DEGREE

Session 2021-22

In

Information Technology

By

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LUCKNOW
(Formerly UPTU)

STUDENT'S DECLARATION

I hereby declare that the work being presented in this report entitled "**STUDENT RECORD SHEET**" is an authentic record of my own work carried out under the supervision **Mr. Jitendra Chauhan, Assistant Professor, Information Technology.**

The matter embodied in this report has not been submitted by me for the award of any other degree.

Date:

Name: Dharmendra Kumar

Roll No.: 2000320130056

Department: Information Technology

This is to certify that the above statement made by the candidate(s) is correct to the best of my knowledge.

Signature of HOD   **Signature of Coordinator**

(Name: Prof. Amit Sinha)   **(Name :Mr. Jitendra Chauhan)**

(Information Technology)   **(Assistant Professor)**

                                  (Information Technology)

Date: …………………..

ACKNOWLEDGEMENT

Presentation inspiration and motivation have always played a key role in the success of any venture.

I express my sincere thanks to my project coordinator **Mr. Jitendra Chauhan** to encourage me to the highest peak and to provide me this opportunity to prepare this project. I extend my heartly thanks for giving me the proper guidance even in this time, when everything is continuing on just online platforms.

I am highly indebted to coordinator **Mr. Jitendra Chauhan** for the constant supervision, for providing all the necessary information and support in completing the project.

Finally, I am sincerely thankful to all those people who are directly or indirectly involved in the successful completion of this project work.

Signature of student

Name: Dharmendra Kumar

Roll No.: 2000320130056

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INTRODUCTION

There are a various of place where we need to store the data/record of people. Like school/college student, employees etc. Every Institute/Organization stores their employees or related people's data in a organized manner and there a lot of method to store the information of the people. Every method, which help to store the record, have their own specific methodology. So my project provides a platform to collect and store the information of the people.

Here, I am with my project named "**Student Record Sheet**" to develop a methodology on the basis of "File Handling" to collect and store the information of student/employees.

Basically In this project, when code will run then it will show a screen with some choices like Insert student record, Display student record, search student record, Delete student record, update student record and Exit. User have to choose a option. If user choose a option to insert the data, user need to insert some information and that information will store in a file which is saved in the system. Same will happen in other options accordingly. To display, search and delete the record it need to enter a roll no. of a student to do all these operation.

I have learnt a lot of things from this project. I'll try to make it more better and beneficial.

REQUIREMENT SPECIFICATION

User and data requirements

- CodeBlock software should be successfully installed on user system.
- Student results for the store the information.
- This stores information about student's names, roll number, marks, and calculate result accordingly.
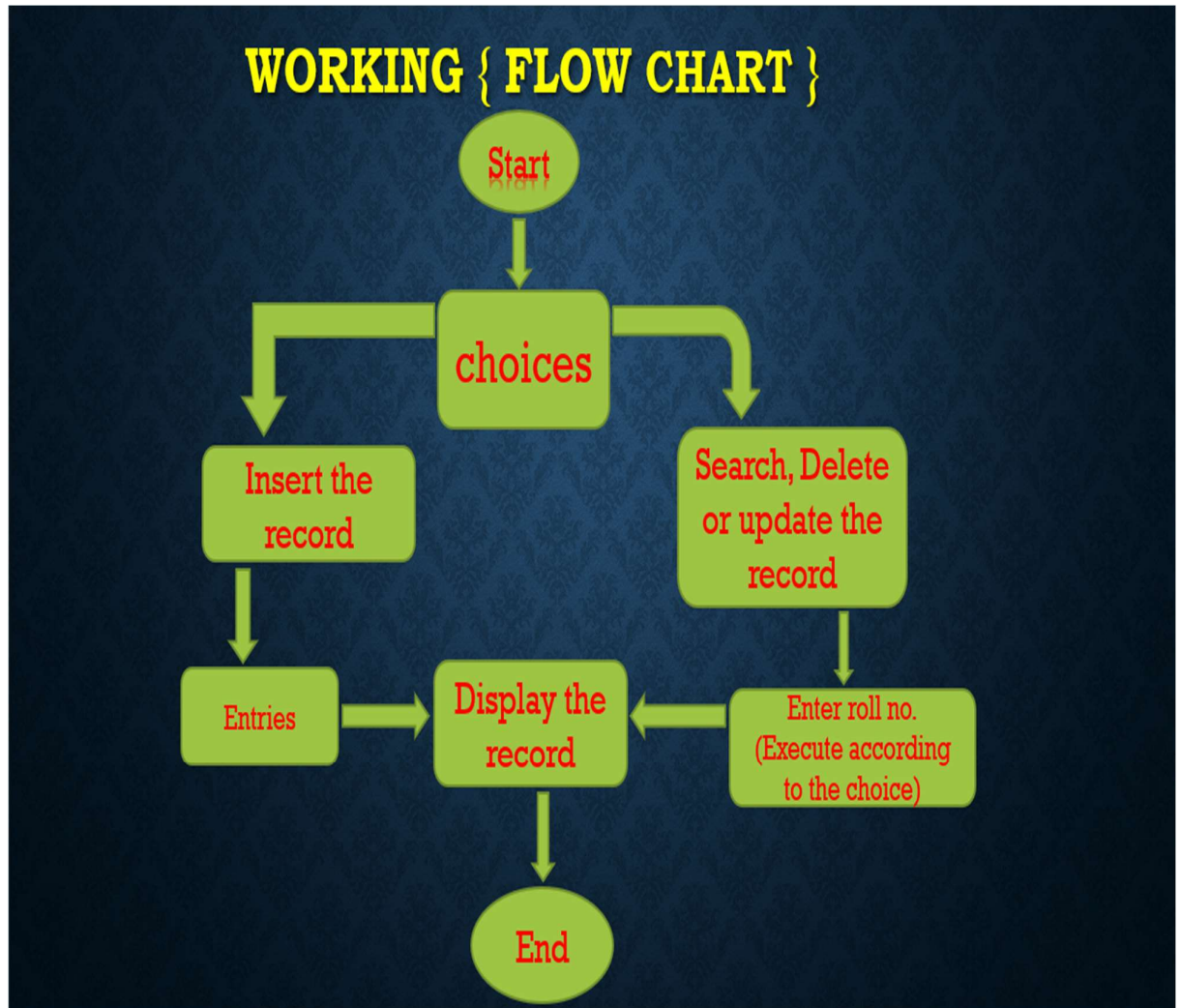
Software requirements

- Compiler: CodeBlock
- Operating System: Windows 7, 8 or 10
- RAM: 256 MB to 2 GB.
- Processor: Dual Core to Core i7.
- Hard Disk Usage: 1 to 5 MB.

Hardware requirements

- High resolution screen.
- Mouse.
- Keyboard.
- Printer.

WORK FLOW

RESULT & DISCUSSION

→ I have created an application which help to store the information of the people belongs to an Institution or Organization.

→ I have also some extra functionalities foe deletion, searching, updation etc.

→ This application will help the Organization to maintain all the information about their worker, employees or students.

→ I have designed a user-friendly application to handle and maintain the all the information in record form.

CONCLUSION & FUTURE DEVELOPMENT

Conclusion

- ❖ We can store the record of the students and that record can be updated, deleted or accessed by student's roll no.

- ❖ User can access the record of any student.

- ❖ This project gives me an opportunity to acquire good skills which help me to achieve perfection in my coding or programming.

Future Development:

- ➢ I would add a tool which help to calculate the marksheet/result of a student on the basis of given information.
- ➢ I would like to the functionalities of GUI in future.

REFERENCES AND LINK

➢ You Tube

#https://youtube.com/playlist?list=PLPzfPcir5uPS
O3My6Hh5-Jstxxw3nyHvI

➢ Google

➢ GeeksForGeeks
https://www.geeksforgeeks.org/c-programs-gq/c-file-
handling-programs-gq/

DETAILS OF THE PROJECT

Appendix-1: Coding

❖ Declaration of structure for containing all the information about the student.

```c
#include<stdio.h>
#include<conio.h>

void insert_record();
void display_record();
void search_record();
void del_record();
void update_record();

struct student
{
    int roll;
    char sec[10];
    char name[40];
    int marks;
    float grade_point;
};
    struct student s;
```

❖ Main function of program

```c
void main()
{
    int ch;
    while(ch!=7)
    {
    printf("\t**********************************************\n");
    printf("\t\tWELCOME TO STUDENT MANAGEMENT PROGRAM\n");
    printf("\t**********************************************\n\n\n");

        printf("\t**** AVAILABLE FUNCTIONALITIES ****\n\n\n");
        printf("\t\t1: Insert student record\n");
        printf("\t\t2: Display student record\n");
        printf("\t\t3: Search student record\n");
        printf("\t\t4: Delete student record\n");
        printf("\t\t5: Update student record\n");
        printf("\t\t6: Exit\n\n");
        printf("\t\tEnter your choice : ");
        scanf("%d",&ch);
```

❖ Switch case in main function

```c
switch(ch)
{
    case 1:insert_record();
        break;
    case 2:display_record();
        break;

    case 3:search_record();
        break;

    case 4:del_record();
        break;
    case 5:update_record();
        break;
    case 6:exit(1);
    default:
        printf("\n\t\tWrong choice Entered");
}
printf("\n\t\tPress any key to continue ");
getch();
}
}
```

❖ Function to insert the data of a student

```c
void insert_record()
{
    FILE *fp;
    fp=fopen("stu.txt","ab+");
    if(fp==NULL)
    {
        printf("\n\t\tError: Cannot Open the File!!!");
        return;
    }
    printf("\t **** Previous Stored Data ****");
    display_record();
    printf("\n\n\t**** ENTER NEW STUDENT DATA ****\n\n");
    printf("\n\t\tEnter Student Roll Number: ");
    scanf("%d",&s.roll);
    fflush(stdin);
    printf("\n\t\tEnter Student Name: ");
    gets(s.name);
    printf("\n\t\tEnter Student Section: ");
    gets(s.sec);
    printf("\n\t\tEnter Student Total marks: ");
    scanf("%d",&s.marks);
    printf("\n\t\tEnter Student Grade Point: ");
    scanf("%f",&s.grade_point);
    fwrite(&s,sizeof(s),1,fp);
    {
        printf("\n\n\t !!! Student Record Inserted Sucessfully\n");
    }
    fclose(fp);
    printf("\n\t\t Updated Record !!\n");
    display_record();
}
```

❖ Function to display all the recorded information

```c
void display_record()
{
    FILE *fp;
    fp=fopen("stu.txt","rb");
    if(fp==NULL)
    {
        printf("\n\t\tError : Cannot open the File !!!");
        return;
    }
    printf("\n\n\t **** Students Details Are As Follows ****\n");
    printf("\nRoll.No\tName of Student\tSection\t\tMarks\t\tGrade Point\n\n");
    //printf("a.students roll number\t b.student name\t c.student section\t d.student marks\t e.student grade");
    while(fread(&s,sizeof(s),1,fp)==1)
    {
        printf("%d\t%s\t%s  \t\t%d\t\t%f\n",s.roll,s.name,s.sec,s.marks,s.grade_point);
    }
    fclose(fp);
}
```

❖ Function to Search the information of a particular student with calling its roll no.

```c
void search_record()
{
    int ro,flag=0;
    FILE *fp;
    fp=fopen("stu.txt","rb");
    if(fp==NULL)
    {
        printf("\n\t\tError: Cannot Open the File!!!");
        return;
    }
    printf("\n\n\tEnter Student Roll Number Which You Want To Search: ");
    scanf("%d",&ro);
    while(fread(&s,sizeof(s),1,fp)>0 && flag==0)
    {
        if(s.roll==ro)
        {
        flag=1;
        printf("\n\n\tSearch Sucessfull And Student Records Is as Follows: \n\n");
        printf("\nRoll.No\tName of Student\tSection\t\tMarks\t\tGrade Point\n\n");
        printf("%d\t%s\t%s  \t\t%d\t\t%f\n",s.roll,s.name,s.sec,s.marks,s.grade_point);
        }
    }
    if(flag==0)
    {
    printf("\n\n\t\tNo Such Record Found !!!!!\n");
    }
fclose(fp);
}
```

❖ Function to delete the information of a particular student with calling its roll no.

```c
void del_record()
{
    int ro,flag=0;
    FILE *fp,*ft;
    fp=fopen("stu.txt","rb");
    ft=fopen("stu1.txt","ab+");
    if(fp==NULL)
    {
        printf("\n\t\tError: Cannot Open the File!!!");
        return;
    }
    printf("\n\t **** Previous Stored Data ****");
    display_record();
    printf("\n\n\tEnter Student Roll Number Which You Want to Delete ");
    scanf("%d",&ro);
    while(fread(&s,sizeof(s),1,fp)>0 && flag==0)
    {
        if(s.roll==ro)
        {
        flag=1;
        printf("\n\t\tRecord Deleted Sucessfully \n");

        }
        else
        {
        fwrite(&s,sizeof(s),1,ft);
        }
    }
    if(flag==0)
    {
    printf("\n\n\t\tNo Such Record Found !!!");
    }
    fclose(fp);
    fclose(ft);
    remove("stu.txt");
    rename("stu1.txt","stu.txt");
    printf("\n\t\t Updated Record !!\n");
    display_record();
}
```

❖ Function to correct or update the recorded information

```c
void update_record()
{
    int ro,flag=0;
    FILE *fp;
    fp=fopen("stu.txt","rb+");
    if(fp==NULL)
    {
        printf("\n\t\tError: Cannot Open the File!!!");
        return;
    }
    printf("\n\n\tEnter Roll Number of Student Whose Record You Want To Update: ");
    scanf("%d",&ro);
    printf("\n\t\t*** Previously Stored Record Of Given Roll Number ***");
```

```c
    while(fread(&s,sizeof(s),1,fp)>0 && flag==0)
    {
        if(s.roll==ro)
        {
        flag=1;
        printf("\nRoll.No\tName of Student\tSection\t\tMarks\t\tGrade Point\n\n");
        printf("%d\t%s\t%s  \t\t%d\t\t%f\n",s.roll,s.name,s.sec,s.marks,s.grade_point);
        printf("\n\t\t*** Now Enter the New Record ***\n\n");

        printf("\n\t\tUpdated Student Roll Number: ");
        scanf("%d",&s.roll);
        fflush(stdin);
        printf("\n\t\tUpdated Student Name: ");
        gets(s.name);
        printf("\n\t\tUpdated Student Section: ");
        gets(s.sec);
        printf("\n\t\tUpdated Student Marks: ");
        scanf("%d",&s.marks);
        printf("\n\t\tUpdated Student Grade Point: ");
        scanf("%f",&s.grade_point);
        fseek(fp,-(long)sizeof(s),1);
        fwrite(&s,sizeof(s),1,fp);
        printf("\n\n\t\tRecord Updated Successfully Check The Display Section!!\n\t\t");
        }
    }
    if(flag==0)
    {
        printf("\n\t\tError : Something went wrong!!!");
    }
fclose(fp);
}
```
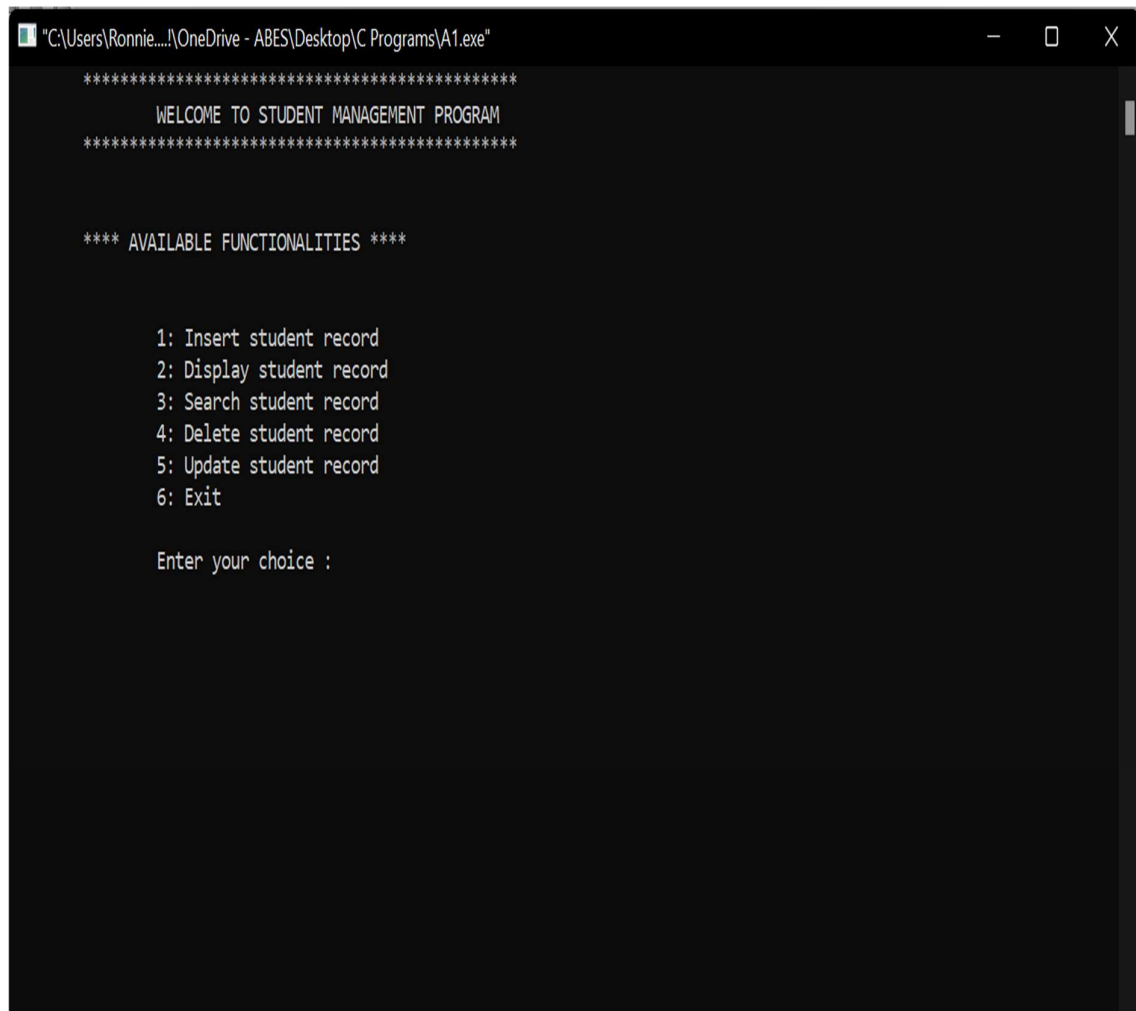
<u>OUTPUTS SCREEN</u>

❖ When User run the program then the program will show the run time screen. The very first screen consists of some choices.


```
"C:\Users\Ronnie....!\OneDrive - ABES\Desktop\C Programs\A1.exe"          —   □   X

     ********************************************
           WELCOME TO STUDENT MANAGEMENT PROGRAM
     ********************************************


     **** AVAILABLE FUNCTIONALITIES ****


            1: Insert student record
            2: Display student record
            3: Search student record
            4: Delete student record
            5: Update student record
            6: Exit

            Enter your choice :
```
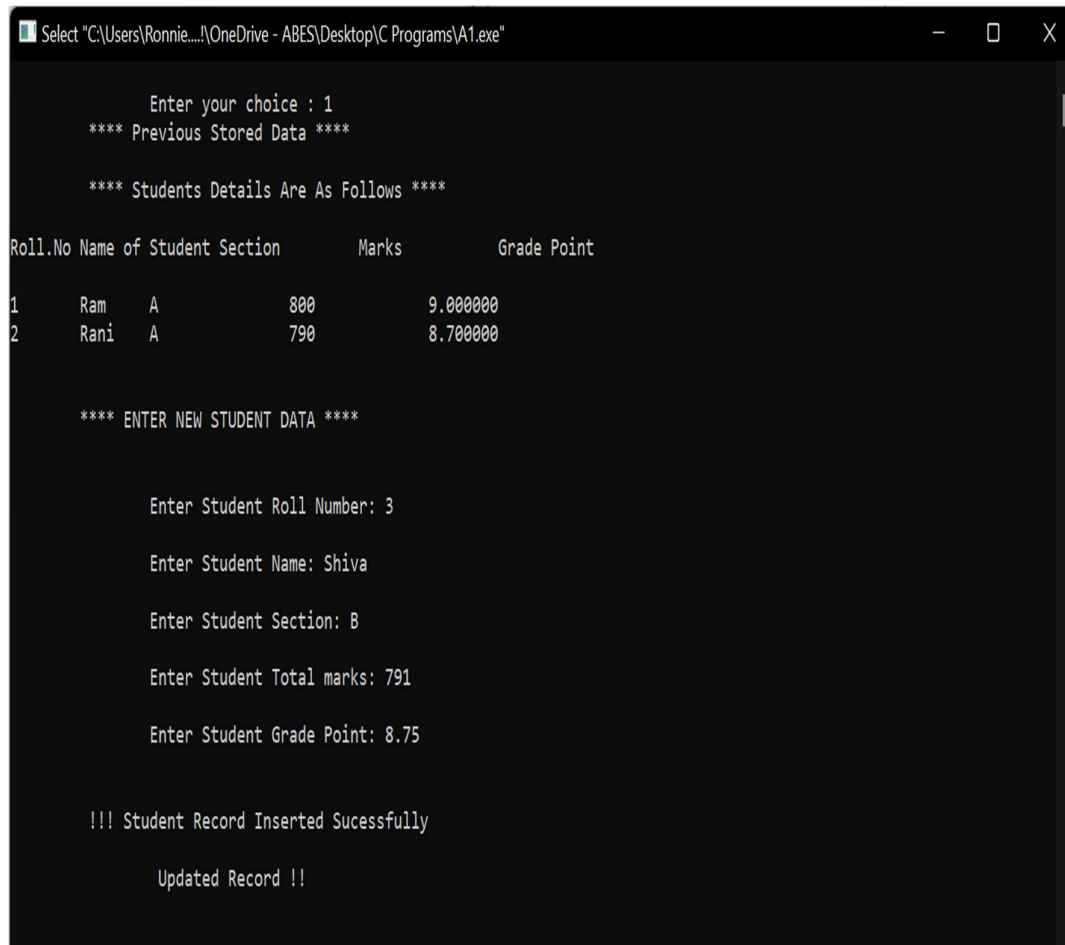
❖ Now user have to choose an option. When user choose "**Insert student record**" to insert the information of a student then user get a screen. That screen will show the stored data and user need to insert the data accordingly.


```
Select "C:\Users\Ronnie....!\OneDrive - ABES\Desktop\C Programs\A1.exe"          —    □    X

                Enter your choice : 1
        **** Previous Stored Data ****

        **** Students Details Are As Follows ****

Roll.No Name of Student Section       Marks         Grade Point

1       Ram    A              800          9.000000
2       Rani   A              790          8.700000


        **** ENTER NEW STUDENT DATA ****


             Enter Student Roll Number: 3

             Enter Student Name: Shiva

             Enter Student Section: B

             Enter Student Total marks: 791

             Enter Student Grade Point: 8.75


        !!! Student Record Inserted Sucessfully

             Updated Record !!
```
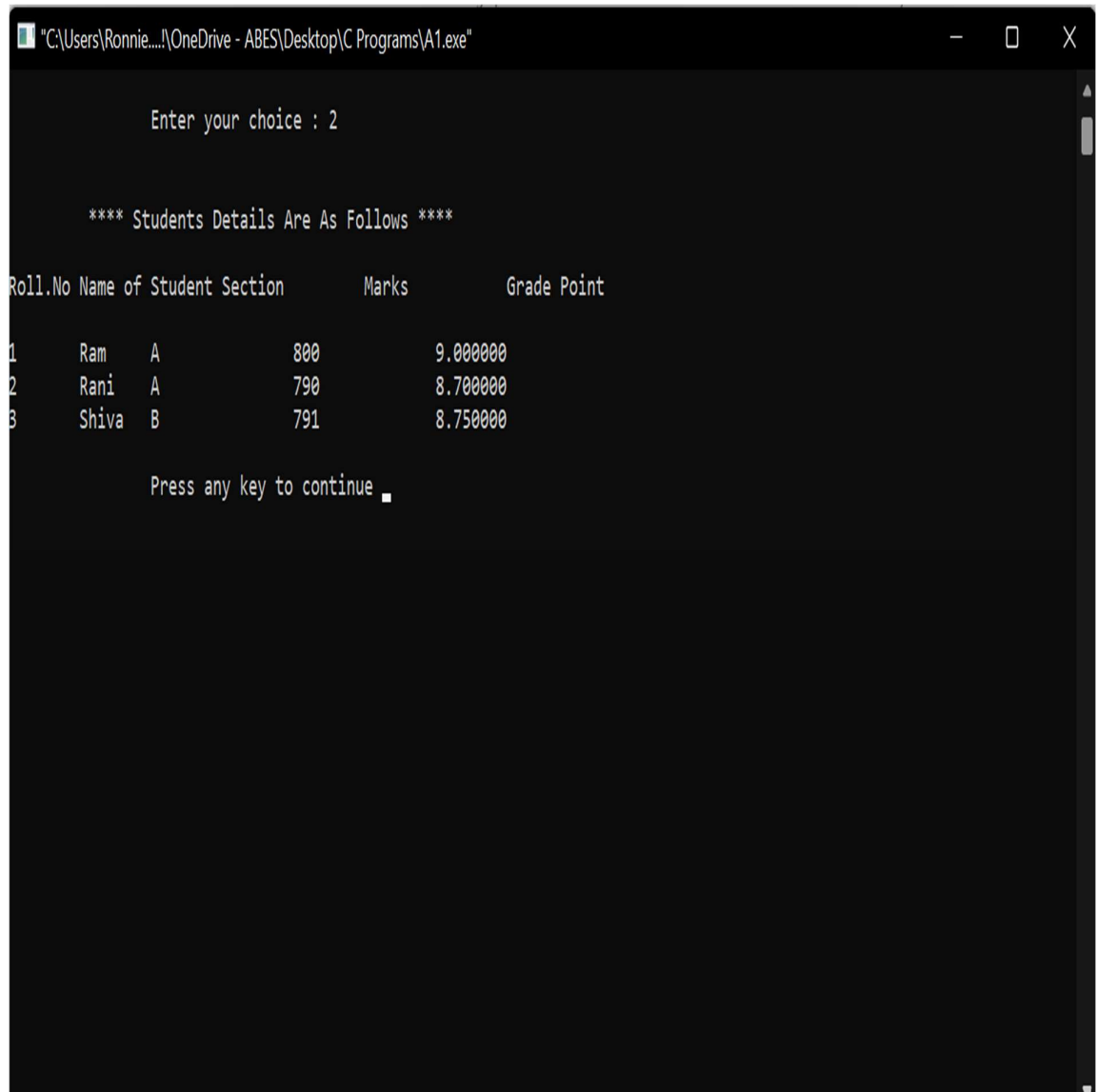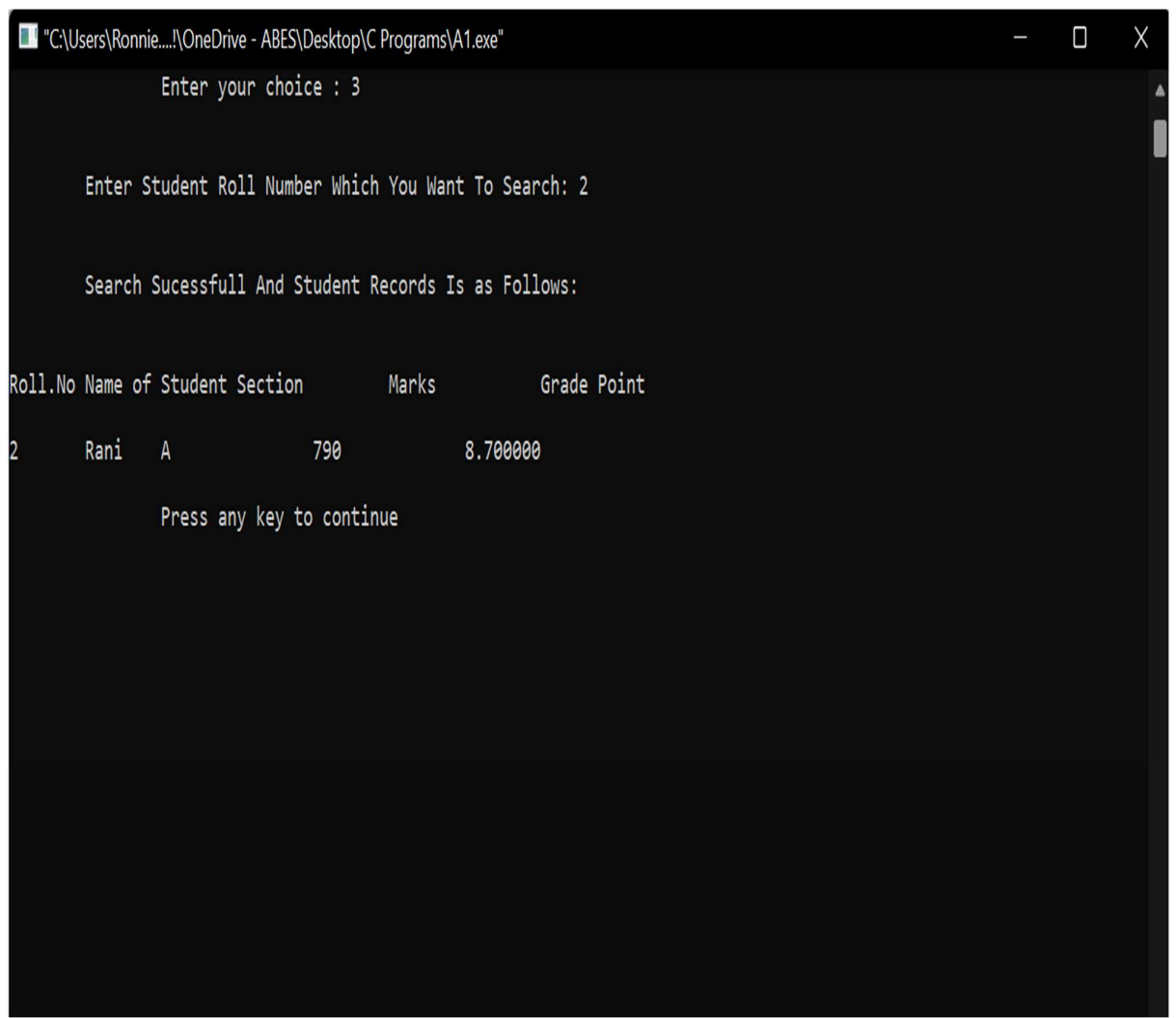
❖ When user choose "**Display student record**" to see the recorded information then user get a screen which shows all the recorded data.

```
"C:\Users\Ronnie....\OneDrive - ABES\Desktop\C Programs\A1.exe"          —   □   X

          Enter your choice : 2


     **** Students Details Are As Follows ****

Roll.No Name of Student Section       Marks          Grade Point

1     Ram    A              800          9.000000
2     Rani   A              790          8.700000
3     Shiva  B              791          8.750000

          Press any key to continue ▮
```

❖ When user choose "**Search student record**" to search any student's record then user need to insert a student's roll no. to get that student's record. Screen be like

```
 "C:\Users\Ronnie....!\OneDrive - ABES\Desktop\C Programs\A1.exe"                    —    □    X

             Enter your choice : 3


     Enter Student Roll Number Which You Want To Search: 2


     Search Sucessfull And Student Records Is as Follows:


Roll.No Name of Student Section       Marks          Grade Point

2      Rani    A             790          8.700000

          Press any key to continue
```

❖ When user choose "**Update student record**" to change/correct the information of a particular student then user need to insert a student's roll no. to update the student's record. Then Screen be like

❖ When user choose "**Delete student record**" to delete the information of a particular student then user need to insert a student's roll no. to delete the student's record. Then Screen be like

```
 "C:\Users\Ronnie....!\OneDrive - ABES\Desktop\C Programs\A1.exe"                                 —    ☐    X
              Enter your choice : 4

         **** Previous Stored Data ****

         **** Students Details Are As Follows ****

Roll.No Name of Student Section       Marks          Grade Point

1       Ram    A              800           9.000000
2       Rani   A              790           8.700000
5       Shiva  A              750           8.490000


         Enter Student Roll Number Which You Want to Delete 5

              Record Deleted Sucessfully

              Updated Record !!


         **** Students Details Are As Follows ****

Roll.No Name of Student Section       Marks          Grade Point

1       Ram    A              800           9.000000
2       Rani   A              790           8.700000

              Press any key to continue
```
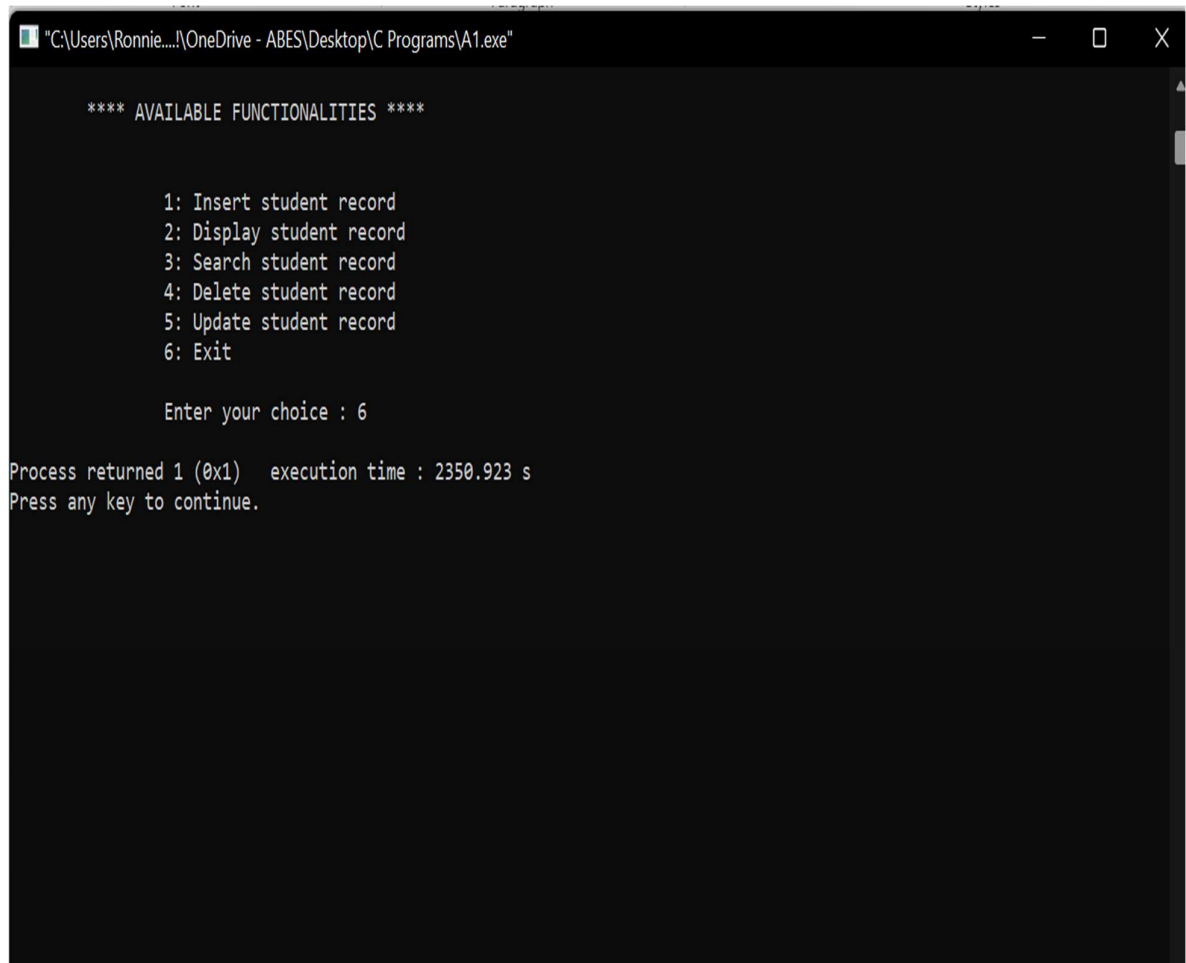
❖ When user want to come out from the application then user have to choose the option "**Exit**". Then runtime screen be like

Thanking You!

🙂