Mini Project Report

Masters OF COMPUTER APPLICATION (MCA)

MCA-1st Year; 1st Sem.

PROJECT GUIDE:

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Student Management System

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- **INTRODUCTION:-** This is Student management system. In this project, we are make a project in C language where we store the student details(like name, section, Roll Number, Marks, Grade) and we are easily do insert, update, delete and search in this project.

- **Purpose:-** The simply purpose of this is to store and manage the data of the students in a single place. From this stored place anyone which know password can assess it easily.

- **Scope of the Project:-** This is designed to store the details of the student. With the help of this anyone which have a access to use it can easily do any operation in this. And it is easy to understand and easy to use.

- **Overall Description:-** This section give an overview to understand easily the Student management system. This system will be explained in its context.

    Here in the Student management system we do the many operation which help the user easily to use it.

    Here we are perform five different operation in this:

    1. Insert Record
    2. Display Record
    3. Search Record
    4. Delete Record

5. Update Recond

- **Conclusion:-** We are make a Student Management System for store the data of the students. And here we can easily access it and easily person all CRUD operations.

Source Code:-

```c
#include<stdio.h>
#include<conio.h>
#include<string.h>
#include<stdlib.h>
#include <unistd.h>
void InsertRecord();
void DisplayRecord();
void SearchRecord();
void DeleteRecord();
void UpdateRecord();

struct Student
```

```c
{
    int roll;
    char sec[10];
    char name[40];
    int marks;
    float grade;
}s;

int main()
{
    char ch,pass[30],i=0;
    char userEnterPass[30];


printf("*******************************************************************\n");
    printf("******************          Welocome          ************************\n");

printf("*******************************************************************\n");
    sleep(5);
    system("CLS");
    FILE *fp;
    fp=fopen("password.txt","r");
    if(fp==NULL)
    {
        printf("Can't open the file");
    }
    while(1)
    {
        ch=fgetc(fp);
        if(ch==EOF)
            break;
        pass[i++]=ch;
    }
    pass[i]='\0';
    // printf("%s\n",pass);
    fclose(fp);


/*---------------------------------------------------------------------
------------------*/

    //user entered password is here
    i=0;
    printf("Enter Your Password:");
```

```c
    while(1) //Here we use loop for hide the password from the client
screen and print * in the place of the password
    {
        ch=getch(); //using getch the value is not show on the screen
        if(ch==13)  //Check if user Enter the Enter then exit the loop
because 13 is ASCII of Enter
        {
            userEnterPass[i]='\0';
            break;
        }
    userEnterPass[i++]=ch;
    printf("*");
    }
    // printf("%s",userEnterPass);

/*-------------------------------------------------------------------------
-------------*/
    sleep(3);
    system("CLS");
    if(strcmp(userEnterPass,pass)==0)
    {
        printf("\nLog in succesfull");
        system("CLS");
        int choice;
        while(1)
        {
            printf("Enter 1 for Enter Student Details:\n");
            printf("Enter 2 for Display Student Details:\n");
            printf("Enter 3 for Search Student Details:\n");
            printf("Enter 4 for Delete Student Details:\n");
            printf("Enter 5 for Update Studnet Details:\n");
            printf("Enter 6 for Exit:");

            printf("\nEnter Your choice: ");
            scanf("%d",&choice);
            switch (choice)
            {
            case 1:
                system("CLS");
                InsertRecord();
                break;
            case 2:
                system("CLS");
                DisplayRecord();
                break;
            case 3:
                system("CLS");
                SearchRecord();
```

```c
                break;
        case 4:
            system("CLS");
            DeleteRecord();
            break;
        case 5:
            system("CLS");
            UpdateRecord();
            break;
        case 6:
            exit(1);
        default:
            printf("Please Enter the right key");
            break;
        }
    }
}
else{
    printf("\nYou Enter a wrong Password! Please Try again Later!");
}

return 0;
}

void InsertRecord(){
    FILE *fp;
    fp=fopen("stu.txt","ab+");
    if(fp==NULL)
    {
        printf("Error: Can't open the file!!");
        return;
    }
    printf("\n\t\nYour Previously Stored Data are:");
    DisplayRecord();
    printf("\n\t\nEnter new Student data:");
    printf("\n\t\nEnter Roll No:");
    scanf("%d",&s.roll);
    fflush(stdin);
    printf("\n\t\nEnter Student Name:");
    gets(s.name);
    printf("\n\t\nEnter Student Section:");
    gets(s.sec);
    printf("\n\t\nEnter Student Total Marks:");
    scanf("%d",&s.marks);
    printf("\n\t\nEnter Student Grade:");
    scanf("%f",&s.grade);

    fwrite(&s,sizeof(s),1,fp);
```

```c
    {
        printf("\n\t\n Inseted Successfully\n");
    }
    fclose(fp);
    printf("Now Updated Record are:");
    DisplayRecord();
}

void DisplayRecord(){
    FILE *fp;
    fp=fopen("stu.txt","rb");
    if(fp==NULL)
    {
        printf("Error: Can't open the file!!");
        return;
    }
    printf("Students Record are::");
    printf("Roll No\nStudent Name\nSection\nMarks\nGrade:\n\n");
    while(fread(&s,sizeof(s),1,fp)!=NULL)
    {
        printf("%d\t%s\t%s
\t\t%d\t\t%f\n",s.roll,s.name,s.sec,s.marks,s.grade);
    }
    fclose(fp);
}

void SearchRecord(){
    int ro,flag=0;
    FILE *fp;
    fp=fopen("stu.txt","rb");
    if(fp==NULL)
    {
        printf("\n\t\nError: Can't open the file!!");
        return;
    }
    printf("\n\t\nEnter 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\t\nFound- Search Succesfully");
            printf("\nRoll No.\t Name of Student \t Section \t Marks \t
Grade\n");
            printf("%d\t%s\t%s
\t\t%d\t\t%f\n",s.roll,s.name,s.sec,s.marks,s.grade);
        }
```

```c
        }
        if(flag==0)
        {
            printf("\n\t\nRecord Not Found");
        }
        fclose(fp);
    }

    void DeleteRecord()
    {
        char name[40];
        unsigned flag=0;
        FILE *fp,*ft;
        fp=fopen("stu.txt","rb");
        if(fp==NULL)
        {
            printf("\n\t\nError: Can't open the file!!");
            return;
        }
        printf("\n\t***** Previous Stored Data ****");
        DisplayRecord();
        printf("\n\n\tEnter the Student Name Which You want to Delete:");
        scanf("%s",name);
        ft=fopen("stu1.txt","ab+");
        while(fread(&s,sizeof(s),1,fp)==1)
        {
            if(strcmp(name,s.name)!=0)
            {
                printf("\n\t\tRecord Deleted Succesfully\n");
                fwrite(&s,sizeof(s),1,ft);
            }
            else
                flag=1;
        }
        if(flag==0)
        {
            printf("\n\n\tNo Such Record Found!!");
        }
        fclose(fp);
        fclose(ft);
        remove("stu.txt");
        rename("stu1.txt","stu.txt");
        printf("\n\t\t Updated Record!!\n");
        DisplayRecord();
    }

    void UpdateRecord(){
        int ro,flag=0;
```
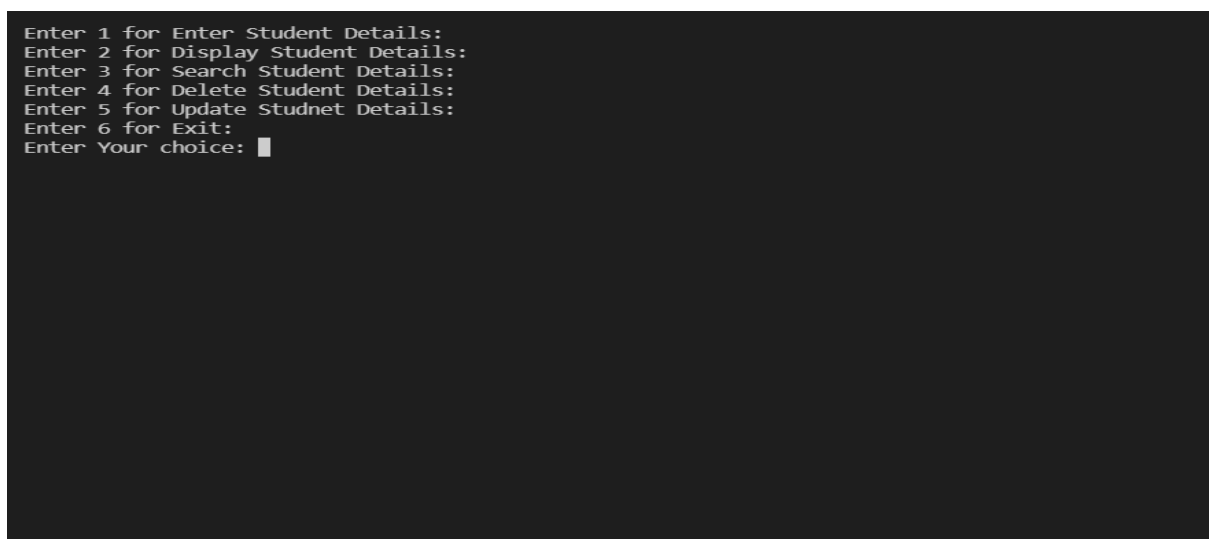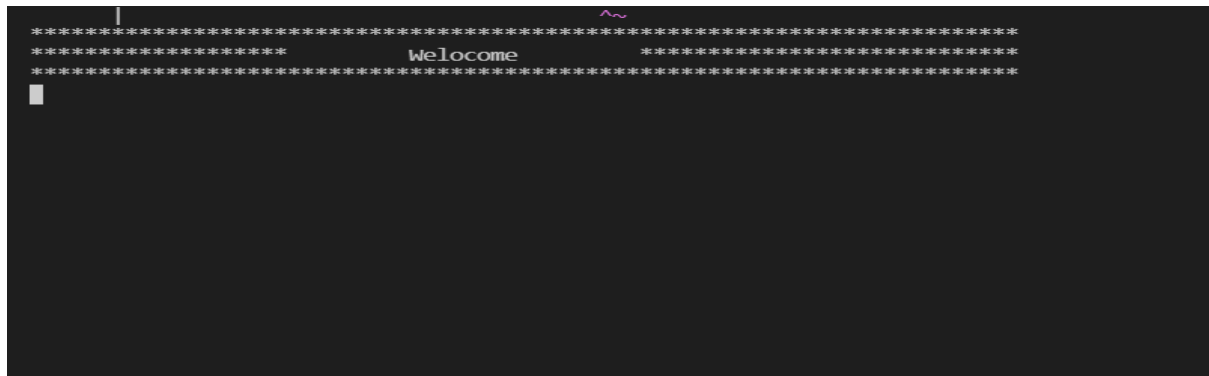
```c
    FILE *fp;
    fp=fopen("stu.txt","rb+");
    if(fp==NULL)
    {
        printf("\n\t\nError: Can't open the file!!");
        return;
    }
    printf("\n\t\nEnter Student Roll Number which you want to search:");
    scanf("%d",&ro);
    while(fread(&s,sizeof(s),1,fp)>0 && flag==0)
    {
        if(s.roll==ro)
        {
            flag=1;
            printf("\nRoll No\t Name of
Student\tsection\tMarks\tGrade\n");
            printf("%d\t%s\t%s
\t\t%d\t\t%f\n",s.roll,s.name,s.sec,s.marks,s.grade);
            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\tUpdate Student Section: ");
            gets(s.sec);
            printf("\n\t\n Update Student Marks: ");
            scanf("%d",&s.marks);
            printf("\n\t\nUpdated Student Grade:");
            scanf("%f",&s.grade);
            fseek(fp,-(long)sizeof(s),1);
            fwrite(&s,sizeof(s),1,fp);
            printf("\n\n\t Record Updted Successfully Cehck The Display");
        }
    }
    if(flag==0)
        {
            printf("\n\t\tError: Something Not Write!!!\n");
        }
    fclose(fp);
}
```

Reference:- Let Us C and Teacher's help.

Screen Shots

```
*****************************************************************************
*********************           Welocome           *********************
*****************************************************************************
```

```
Enter 1 for Enter Student Details:
Enter 2 for Display Student Details:
Enter 3 for Search Student Details:
Enter 4 for Delete Student Details:
Enter 5 for Update Studnet Details:
Enter 6 for Exit:
Enter Your choice:
```

```
Your Previously Stored Data are:Students Record are::Roll No
Student Name
Section
Marks
Grade:

2        nitya   a                100              100.000000


Enter new Student data:

Enter Roll No:
```

```
Enter Roll No:1

Enter Student Name:suryansh

Enter Student Section:c

Enter Student Total Marks:100

Enter Student Grade:100


 Inseted Successfully
Now Updated Record are:Students Record are::Roll No
Student Name
Section
Marks
Grade:

2      nitya   a              100              100.000000
1      suryansh      c              100              100.000000
Enter 1 for Enter Student Details:
Enter 2 for Display Student Details:
Enter 3 for Search Student Details:
Enter 4 for Delete Student Details:
Enter 5 for Update Studnet Details:
Enter 6 for Exit:
Enter Your choice:
```

Grade:

```
2       nitya   a               100             100.000000
1       suryansh        c               100             100.000000
Enter 1 for Enter Student Details:
Enter 2 for Display Student Details:
Enter 3 for Search Student Details:
Enter 4 for Delete Student Details:
Enter 5 for Update Studnet Details:
Enter 6 for Exit:
Enter Your choice: █
```

Grade:

```
2       nitya   a               100             100.000000
1       suryansh        c               100             100.000000


        Enter the Student Name Which You want to Delete:suryansh

               Record Deleted Succesfully

                 Updated Record!!
Students Record are::Roll No
Student Name
Section
Marks
Grade:

2       nitya   a               100             100.000000
Enter 1 for Enter Student Details:
Enter 2 for Display Student Details:
Enter 3 for Search Student Details:
Enter 4 for Delete Student Details:
Enter 5 for Update Studnet Details:
Enter 6 for Exit:
Enter Your choice: █
```

```
Enter Student Roll Number which you want to search:2


Found- Search Succesfully
Roll No.          Name of Student          Section          Marks     Grade
2        nitya    a                100                    100.000000
Enter 1 for Enter Student Details:
Enter 2 for Display Student Details:
Enter 3 for Search Student Details:
Enter 4 for Delete Student Details:
Enter 5 for Update Studnet Details:
Enter 6 for Exit:
Enter Your choice: █
```

```
Enter Student Roll Number which you want to search:1

Roll No  Name of Student          section Marks    Grade
1        nitya    b                100            100.000000

                *** Now Enter The new Record***


                Updated Student Roll Number: 1

                Updated Student Name: nitya

                Update Student Section: b


 Update Student Marks: 100


Updated Student Grade:100


        Record Updted Successfully Cehck The DisplayEnter 1 for Enter Student Details:
Enter 2 for Display Student Details:
Enter 3 for Search Student Details:
Enter 4 for Delete Student Details:
Enter 5 for Update Studnet Details:
Enter 6 for Exit:
Enter Your choice: █
```

Thank You