GANPAT UNIVERSITY

INSTITUTE OF COMPUTER TECHNOLOGY

ESSENTIALS OF SOFTWARE FOUNDATION & PROGRAMMING – I

FINAL END SEMESTER PROJECT [2021 BATCH - SEMESTER : 01]

COLLEGE INFORMATION SYSTEM

PROJECT DEVELOPED BY :-

SR.NO	NAME	ER. NO.
1	ANSH PATEL	10162179004
2	ATHARVA DESHPANDE	10162179005
3	KRISH PATEL	10162179003

GROUP CODE : G23 [BATCH – 15]

CODE

(*Coding performed in C language in Dev C++ Compiler)*

[NOTE : PASSWORD IS "g23".]

```c
#include<stdio.h>

#include<string.h>

#include<stdlib.h>

#include<math.h>

#include<windows.h>


#define Student struct Stud

void add(FILE * fp);

void modify(FILE * fp);

void display(FILE * fp);

void Indivisual(FILE *fp);

void password();

FILE * del(FILE * fp);

void printChar(char ch,int n);

void title();

FILE *tp;
```

```c
void gotoxy(int x,int y)
{
    COORD CRD;
  CRD.X = x;
  CRD.Y = y;

SetConsoleCursorPosition(GetStdHandle(STD_OUTPUT_HANDLE)
,CRD);
}

struct pass
{
    char pass[25];
}pa;

struct Stud
{
  char name[100];
  char dept[50];
  int roll;
  float sgpa[8];
  float cgpa;
};
```

```c
int main()
{
    int ch,id,k,i;
    char c,pas[50];
    SetConsoleTitle("COLLEGE INFORMATION SYSTEM | GUNI-ICT");
    FILE * fp;
    Student s;
    int option;
    char another;

    if((fp=fopen("db.txt","rb+"))==NULL)
    {
        if((fp=fopen("db.txt","wb+"))==NULL)
        {
            printf("Can't create or open Database.");
            return 0;
        }
    }
    system("color 9f");
        gotoxy(42,8);
        printf("LOGIN(If  press ENTER to continue......)");
        gotoxy(42,10);
        printf("_____");
```

```c
        gotoxy(42,11);
        printf("|\tEnter password :           |");
        gotoxy(42,12);
        printf("|_____|");
        //printf("\n\t\t\t\t\t");
        gotoxy(65,11);
        while( k<10)
        {
            pas[k]=getch();
            char s=pas[k];
            if(s==13)
                 break;
            else printf("*");
            k++;
        }
        pas[k]='\0';
        tp=fopen("F:/Password.txt","r+");
    fgets(pa.pass,25,tp);
    if(strcmp(pas,pa.pass)==0)
        {
                system("cls");
                gotoxy(10,3);
                printf("<<<< Loading Please Wait >>>>");
                for(i=0; i<5; i++)
        {
```

```
        printf("\t(*_*)");

        Sleep(500);

    }

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

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

        printf("\n\n\t\t\t\t\t   *      Welcome  to the COLLEGE
INFORMATION SYSTEM [G-23]                    ");

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

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

        printf("\n\n\n\n\n\t\t\t\t\tPress any key to continue......
");

        getch();


    title();

    printf("\n\n\t\t\t\t SEM 1 2021 BATCH 15  ");

    printf("\n\n\t\t\t\t   ANSH PATEL , ATHARVA DESHPANDE ,
KRISH PATEL  ");

    printf("\n\n\t\t\t  GUNI - ICT \n\t\t\t");

    printChar('=',38);

    printf("\n\n\n\t\t\t      press any key to Enter");

    getch();


    while(1)

    {
```

```c
title();
printf("\n\t");
printChar('*',64);

printf("\n\n\t\t\t\t1. Add Student :");
printf("\n\n\t\t\t\t2. Modify Student :");
printf("\n\n\t\t\t\t3. Display All Student Records :");
printf("\n\n\t\t\t\t4. Display Individual Student Records :");
printf("\n\n\t\t\t\t5. Remove Student from records :");
printf("\n\n\t\t\t\t6. Change Password :");
printf("\n\n\t\t\t\t7. Logout\n\t");
printChar('*',64);
printf("\n\n\t\t\t\tEnter Your Option :--> ");
scanf("%d",&option);

switch(option)
{
   case 1:
      add(fp);
      break;
   case 2:
      modify(fp);
      break;
   case 3:
      display(fp);
```

```c
                break;
        case 4:
            Indivisual(fp);
            break;
        case 5:
            fp=del(fp);
            break;
        case 6:
                system("cls");
                            system("color 8f");
                        password();
            break;
        case 7:
            return 1;
            break;
        default:
            printf("\n\t\tNo Action Detected");
            printf("\n\t\tPress Any Key\n\n\n");
            getch();
            system("pause");
    }
}
}
else
{
```

```c
        printf("Wrong Password ");
        getch();
    }
    return 1;

}


void password()
{
    char c;
    printf("\nEnter new password :");
    fflush(stdin);
    gets(pa.pass);
    printf("\nSave password (y/n) :");
    fflush(stdin);
    scanf("%c",&c);
    if(c=='y'||c=='Y')
    {
        tp=fopen("F:/Password.txt","w+");
        fwrite(&pa,sizeof(pa),1,tp);
        fclose(tp);
        printf("\n\tPassword Saved\n");
    }
    else
```

```c
        {
                printf("Password not saved :\n");
                printf("Press any key to continue >>>");
                getch();
        }
}


void printChar(char ch,int n)
{
   while(n--)
   {
     putchar(ch);
   }
}

void title()
{
   system("cls");
   system("COLOR 03");
   printf("\n\n\t");
   printChar('=',19);
   printf(" College Information System ");
   printChar('=',19);
   printf("\n");
```

```c
    }


 void add(FILE * fp)
{
    title();

    char another='y';
    Student s;
    int i;
    float cgpa;

    fseek(fp,0,SEEK_END);
    while(another=='y'||another=='Y')
    {

        printf("\n\n\t\tEnter Full Name of Student: ");
        fflush(stdin);
        fgets(s.name,100,stdin);
        s.name[strlen(s.name)-1]='\0';

        printf("\n\n\t\tEnter Depertment Name: ");
        fflush(stdin);
```

```c
        fgets(s.dept,50,stdin);
        s.dept[strlen(s.dept)-1]='\0';


        printf("\n\n\t\tEnter Enrollment number: ");
        scanf("%d",&s.roll);


        printf("\n\n\tEnter SGPA for 8 semesters\n");
        for(i=0,cgpa=0; i<8; i++)
        {
           scanf("%f",&s.sgpa[i]);
           cgpa+=s.sgpa[i];


        }


        cgpa/=8.0;
        s.cgpa=cgpa;


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


        printf("\n\n\t\tAdd another student?(Y/N)?");
        fflush(stdin);
        another=getchar();
     }
  }
```

```c
FILE * del(FILE * fp)
{
    title();

    Student s;
    int flag=0,tempRoll,siz=sizeof(s);
    FILE *ft;

    if((ft=fopen("temp.txt","wb+"))==NULL)
    {
        printf("\n\n\t\t\t\\t!!! ERROR !!!\n\t\t");
        system("pause");
        return fp;
    }

    printf("\n\n\tEnter Enrollment number of Student to Delete the
Record");
    printf("\n\n\t\t\tRoll No. : ");
    scanf("%d",&tempRoll);

    rewind(fp);

    while((fread(&s,siz,1,fp))==1)
```

```c
    {
        if(s.roll==tempRoll)
        {
            flag=1;
            printf("\n\tRecord Deleted for :");
            printf("\n\n\t\t%s\n\n\t\t%s\n\n\t\t%d\n\t",s.name,s.dept,s.roll);
            continue;
        }


        fwrite(&s,siz,1,ft);
    }



    fclose(fp);
    fclose(ft);


    remove("db.txt");
    rename("temp.txt","db.txt");


    if((fp=fopen("db.txt","rb+"))==NULL)
    {
        printf("ERROR");
        return  NULL;
    }
```

```c
        if(flag==0) printf("\n\n\t\tNO STUDENT FOUND  ....\n\t");


    printChar('-',65);
    printf("\n\t");
    system("pause");
    return fp;
}



void modify(FILE * fp)
{
    title();


    Student s;
    int i,flag=0,tempRoll,siz=sizeof(s);
    float cgpa;


    printf("\n\n\tEnter Enrollment Number of Student to MODIFY the
Record : ");
    scanf("%d",&tempRoll);


    rewind(fp);


    while((fread(&s,siz,1,fp))==1)
    {
```

```c
        if(s.roll==tempRoll)
        {
            flag=1;
            break;
        }
    }

    if(flag==1)
    {
        fseek(fp,-siz,SEEK_CUR);
        printf("\n\n\t\t\t\tRecord Found\n\t\t\t");
        printChar('=',38);
        printf("\n\n\t\t\tStudent Name: %s",s.name);
        printf("\n\n\t\t\tStudent Enrollment no: %d\n\t\t\t",s.roll);
        printChar('=',38);
        printf("\n\n\t\t\tEnter New Data for the student");

        printf("\n\n\t\t\tEnter Full Name of Student: ");
        fflush(stdin);
        fgets(s.name,100,stdin);
        s.name[strlen(s.name)-1]='\0';

        printf("\n\n\t\t\tEnter Department: ");
        fflush(stdin);
        fgets(s.dept,50,stdin);
```

```c
    s.dept[strlen(s.dept)-1]='\0';

    printf("\n\n\t\t\tEnter Enrollment number: ");
    scanf("%d",&s.roll);

    printf("\n\n\t\tEnter SGPA for 8 semesters\n");
    for(i=0,cgpa=0; i<8; i++)
    {
        scanf("%f",&s.sgpa[i]);
        cgpa+=s.sgpa[i];

    }
    cgpa=cgpa/8.0;

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

  else printf("\n\n\t!!!! ERROR !!!! RECORD NOT FOUND");

  printf("\n\n\t");
  system("pause");

}
```

```c
void display(FILE * fp)
{
    title();
    Student s;
    int i,siz=sizeof(s);


    rewind(fp);


    while((fread(&s,siz,1,fp))==1)
    {
        printf("\n\t\tNAME : %s",s.name);
        printf("\n\n\t\tDepertment : %s",s.dept);
        printf("\n\n\t\tER. no : %d",s.roll);
        printf("\n\n\tSGPA: ");


        for(i=0; i<8; i++)
            printf("| %.2f |",s.sgpa[i]);
        printf("\n\n\t\tCGPA : %.2f\n\t",s.cgpa);
        printChar('-',65);
    }
    printf("\n\n\n\t");
    printChar('*',65);
    printf("\n\n\t");
    system("pause");
```

```c
    }

void Indivisual(FILE *fp)
{
    title();

    int tempRoll,flag,siz,i;
    Student s;
    char another='y';

    siz=sizeof(s);

    while(another=='y'||another=='Y')
    {
        printf("\n\n\tEnter Enrollment Number: ");
        scanf("%d",&tempRoll);

        rewind(fp);

        while((fread(&s,siz,1,fp))==1)
        {
            if(s.roll==tempRoll)
            {
                flag=1;
                break;
```

```c
            }
        }


        if(flag==1)
        {
            printf("\n\t\tNAME : %s",s.name);
            printf("\n\n\t\tDepartment : %s",s.dept);
            printf("\n\n\t\tER NO. : %d",s.roll);
            printf("\n\n\tSGPA: ");


            for(i=0; i<8; i++)
                printf("| %.2f |",s.sgpa[i]);
            printf("\n\n\t\tCGPA : %.2f\n\t",s.cgpa);
            printChar('-',65);


        }
        else printf("\n\n\t\t!!!! ERROR RECORD NOT FOUND !!!!");



        printf("\n\n\t\tShow another student information? (Y/N)?");
        fflush(stdin);
        another=getchar();
    }
}
```

OUTPUT SCREENS [SNAPSHOTS]
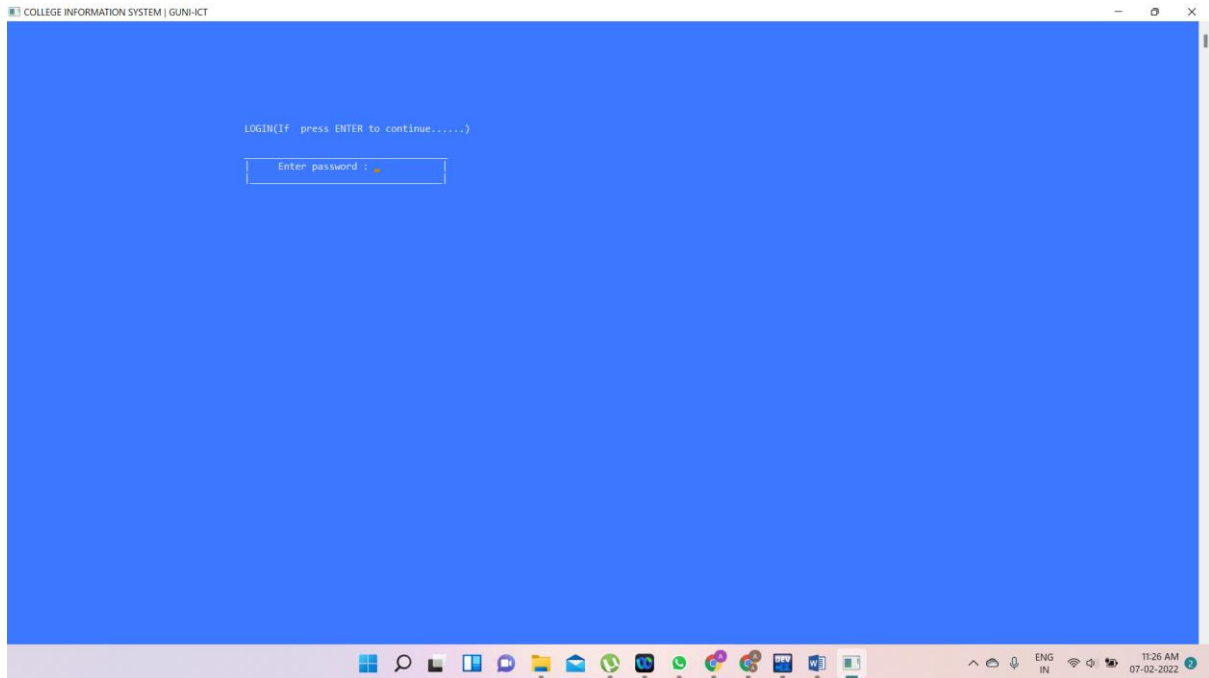
INPUT PASSWORD TO LOGIN
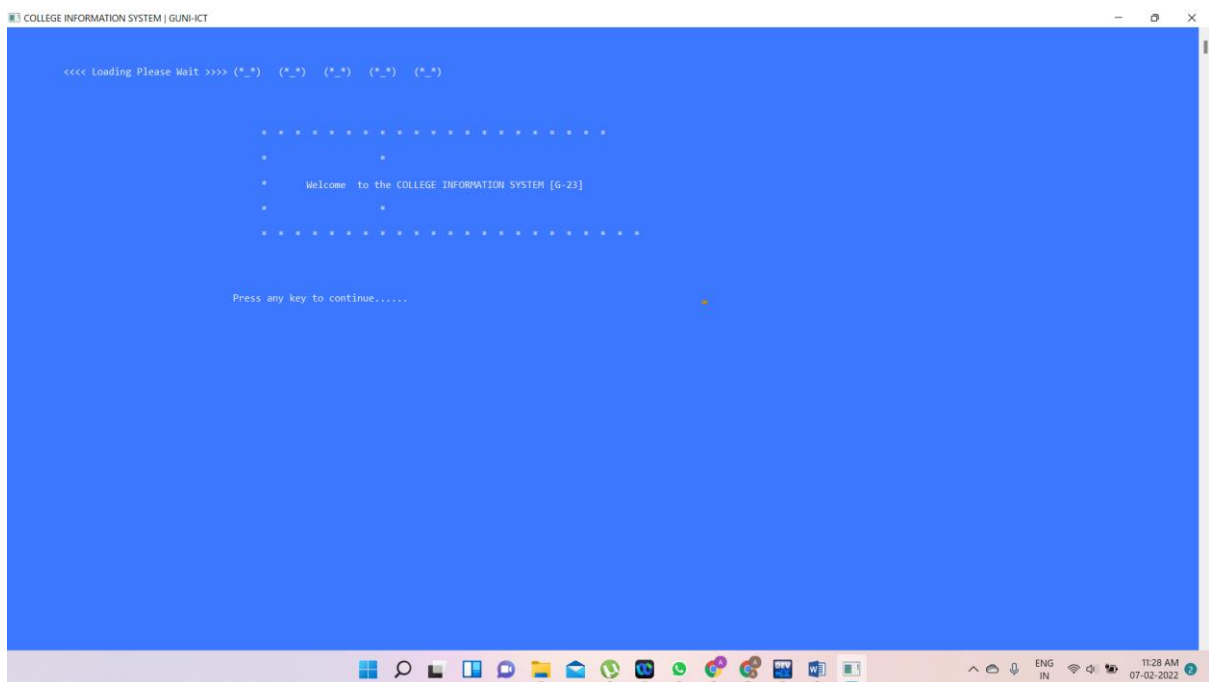
WELCOME SCREEN
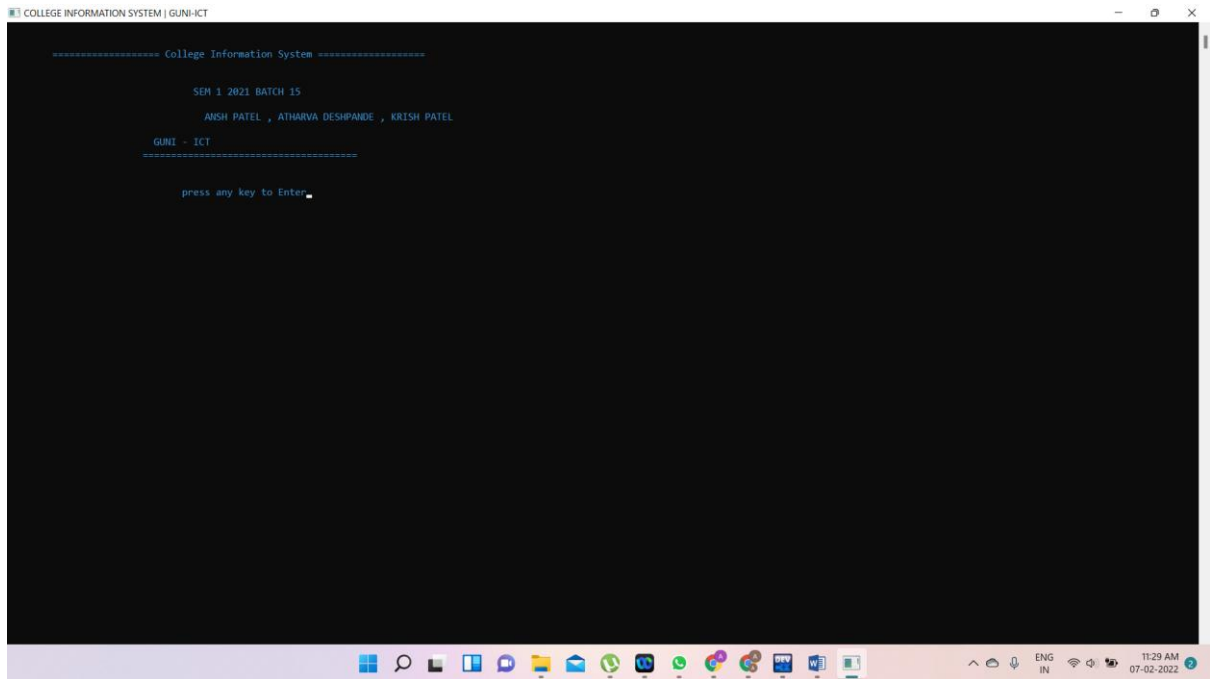
INFORMATION OF PROJECT DEVELOPERS
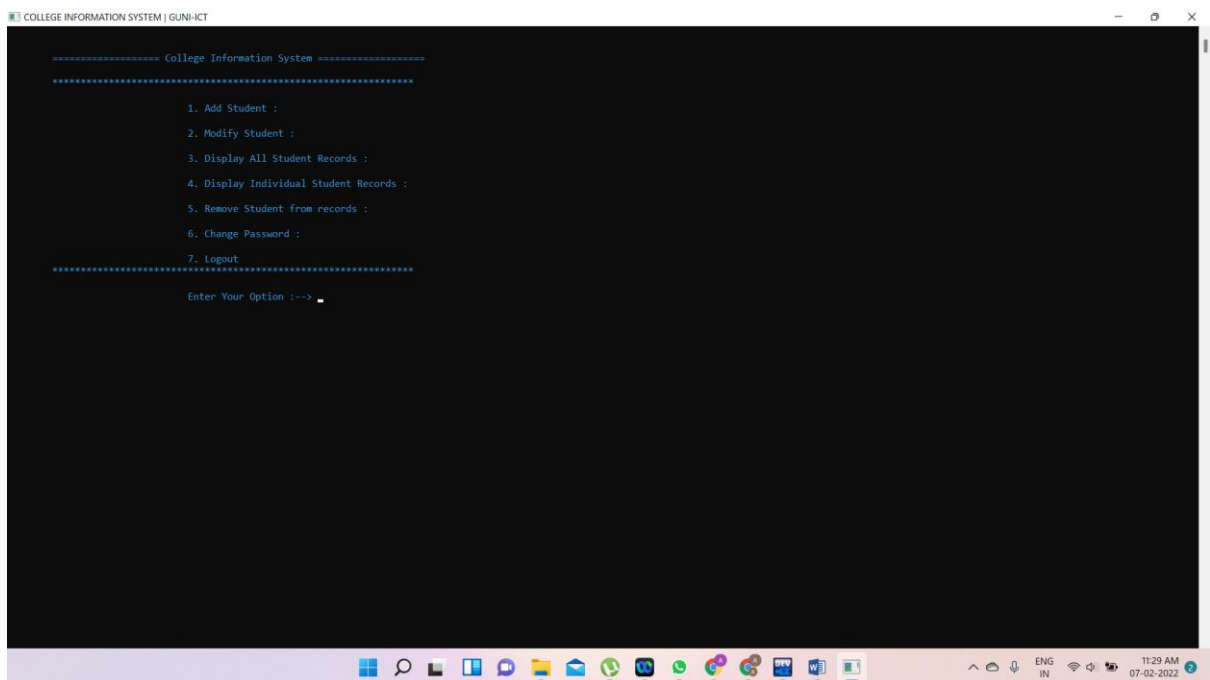
MAIN MENU

ADDING STUDENT NEW RECORD

DISPLAY ALL RECORD

DISPLAY INDIVIDUAL RECORD

DELTE RECORD

================== College Information System ==================

****

                    1. Add Student :

                    2. Modify Student :

                    3. Display All Student Records :

                    4. Display Individual Student Records :

                    5. Remove Student from records :

                    6. Change Password :

                    7. Logout

****

                    Enter Your Option :--> 7

Process exited after 832.4 seconds with return value 1
Press any key to continue . . .

FINAL LOGOUT

_____