```
#include<stdio.h>
#include<conio.h>
#include<string.h>
#include<graphics.h>
#include<dos.h>
#include<process.h>
struct student
{
      char name[60];
      int id;
      int mark[5];
      float gp[5];
      char grade[2];
}st[5];


void menu();
void menu1();
void menu2();
void mouse();
void mouse1();
void mouse2();
void message();
void single_info();
void multi_info();
void single_result();
void view_all();
int check(int mrk);
float s_gp(int mrk);
void grd(float gpa1,int i);
void output(int i);
unsigned initmouse();
void showmouse();
void hidemouse();
void restrictmouse(int x1,int y1,int x2,int y2);
void getmouse(int *button,int *x,int *y);
void main()
{
      clrscr();
      menu();
}
void menu()
{
      char mnu[30];
      int gd=0,gm;
      initgraph(&gd, &gm,".\\BGI");
      rectangle(60,350,400,60);
      rectangle(145,130,300,100);
      rectangle(145,190,300,160);
      rectangle(250,280,350,250);
      setcolor(10);
      sprintf(mnu,"     STUDENT RESULT SYSTEM");
      settextstyle(TRIPLEX_FONT,0,5);
      outtext(mnu);
```

```
        set color (13);
        sprint f(mnu,"MAIN MENU");
        set t ext st yle(TRIPLEX_FONT,0,1);
        out t ext xy(170,70,mnu);

        set color (12);
        sprint f(mnu,"STUDENT INFO");
        set t ext st yle(TRIPLEX_FONT,0,1);
        out t ext xy(160,103,mnu);

        set color (12);
        sprint f(mnu,"VIEW RESULT");
        set t ext st yle(TRIPLEX_FONT,0,1);
        out t ext xy(164,163,mnu);

        set color (YELLOW);
        sprint f(mnu,"EXIT");
        set t ext st yle(TRIPLEX_FONT,0,1);
        out t ext xy(280,253,mnu);
        message();
        mouse();
}
void mouse()
{
        int  x,y,but t on;
        if(init mouse()==0)
        {
                pr int f("Mouse suppor t  unavailable");
                r et ur n;
        }
        r est r ict mouse(0,0,650,485);
        show mouse();
        w hile(1)
        {
                get mouse(&but t on,&x,&y);
                if(x>=144&&x<=301&&y>=100&&y<=129&&but t on==1)
                {
                        closegr aph();
                        clr scr ();
                        menu1();
                }
                else  if(x>=144&&x<=301&&y>=158&&y<=190&&but t on==1)//checks  if  exit  but t on  is
pr essed or  not
                {
                        closegr aph();
                        clr scr ();
                        menu2();
                }
                else  if(x>=248&&x<=352&&y>=248&&y<=281&&but t on==1)//checks  if  exit  but t on  is
pr essed or  not
                {
                        closegr aph();
                        br eak;
                }
        }
```

```
}
void menu1()
{
	char  mnu[30];
	int  gd=0,gm;
	init gr aph(&gd,	&gm,".\\BGI");
	r ect angle(60,350,400,60);
	r ect angle(145,130,300,100);
	r ect angle(145,190,300,160);
	r ect angle(250,280,350,250);
	r ect angle(80,280,195,250);
	set color (10);
	spr int f(mnu,"	STUDENT RESULT SYSTEM");
	set t ext st yle(TRIPLEX_FONT,0,5);
	out t ext (mnu);

	set color (13);
	spr int f(mnu,"STUDENT INFORMATION");
	set t ext st yle(TRIPLEX_FONT,0,1);
	out t ext xy(125,70,mnu);

	set color (12);
	spr int f(mnu,"SINGLE STUDENT");
	set t ext st yle(TRIPLEX_FONT,0,1);
	out t ext xy(149,103,mnu);

	set color (12);
	spr int f(mnu,"MULTI STUDENT");
	set t ext st yle(TRIPLEX_FONT,0,1);
	out t ext xy(153,163,mnu);

	set color (YELLOW);
	spr int f(mnu,"MAIN MENU");
	set t ext st yle(TRIPLEX_FONT,0,1);
	out t ext xy(86,253,mnu);

	set color (YELLOW);
	spr int f(mnu,"EXIT");
	set t ext st yle(TRIPLEX_FONT,0,1);
	out t ext xy(280,253,mnu);
	message();
	mouse1();
}
void mouse1()
{
	int  x,y,but t on;
	if(init mouse()==0)
	{
		pr int f("Mouse suppor t  unavailable");
		r et ur n;
	}
	r est r ict mouse(0,0,650,485);
	show mouse();
	w hile(1)
	{
```

```
            getmouse(&button,&x,&y);
            gotoxy(35,20);
            if(x>=144&&x<=301&&y>=100&&y<=129&&button==1)
            {
                  closegraph();
                  clrscr();
                  single_info();
            }
            else if(x>=144&&x<=301&&y>=158&&y<=190&&button==1)//checks if exit button is
pressed or not
            {
                  closegraph();
                  clrscr();
                  multi_info();
            }
            else if(x>=248&&x<=352&&y>=248&&y<=281&&button==1)//checks if exit button is
pressed or not
            {
                  closegraph();
                  break;
            }
            else if(x>=78&&x<=196&&y>=249&&y<=281&&button==1)//checks if exit button is
pressed or not
            {
                  closegraph();
                  menu();
            }
      }
}
void single_info()
{
      int i,j=-1;
      printf("\nEnter Name:");
      gets(st[0].name);
      printf("\nEnter id:");
      scanf("%d",&st[0].id);
      for(i=0;i<5;i++)
      {
            printf("\nEnter %d Mark:",i+1);
            scanf("%d",&st[0].mark[i]);
            j=check(st[0].mark[i]);
            if(j==1)
            {
                  printf("\nYou Enter Invalid input.");
                  printf("PRESS ANY KEY TO EXIT.");
                  getch();
                  exit(0);
            }
      }
      menu();
}
void multi_info()
{
      int i,j=-1,k;
      for(k=0;k<5;k++)
```

```
        {
                printf("\nEnter %d Name:",k+1);
                scanf("%s",st[k].name);
                printf("\nEnter id:");
                scanf("%d",&st[k].id);
                for(i=0;i<5;i++)
                {
                        printf("\nEnter %d Mark:",i+1);
                        scanf("%d",&st[k].mark[i]);
                        j=check(st[k].mark[i]);
                        if(j==1)
                        {
                                printf("\nYou Enter Invalid input.");
                                printf("PRESS ANY KEY TO EXIT.");
                                getch();
                                exit(0);
                        }
                }
        }
        menu();
}
int check(int mrk)
{
        if(mrk>100||mrk<0)
                return 1;
        else
                return 0;
}


void menu2()
{
        char mnu[30];
        int gd=0,gm;
        initgraph(&gd,  &gm,".\\BGI");
        rectangle(60,350,400,60);
        rectangle(145,130,300,100);
        rectangle(145,190,300,160);
        rectangle(250,280,350,250);
        rectangle(80,280,195,250);
        setcolor(10);
        sprintf(mnu,"    STUDENT RESULT SYSTEM");
        settextstyle(TRIPLEX_FONT,0,5);
        outtext(mnu);

        setcolor(13);
        sprintf(mnu,"RESULT");
        settextstyle(TRIPLEX_FONT,0,1);
        outtextxy(190,70,mnu);

        setcolor(12);
        sprintf(mnu,"SINGLE RESULT");
        settextstyle(TRIPLEX_FONT,0,1);
        outtextxy(155,103,mnu);
```

```
	setcolor(12);
	sprintf(mnu,"VIEW ALL");
	settextstyle(TRIPLEX_FONT,0,1);
	outtextxy(180,163,mnu);

	setcolor(YELLOW);
	sprintf(mnu,"MAIN MENU");
	settextstyle(TRIPLEX_FONT,0,1);
	outtextxy(86,253,mnu);

	setcolor(YELLOW);
	sprintf(mnu,"EXIT");
	settextstyle(TRIPLEX_FONT,0,1);
	outtextxy(280,253,mnu);
	message();
	mouse2();
}
void mouse2()
{
	int x,y,button;
	if(initmouse()==0)
	{
		printf("Mouse support unavailable");
		return;
	}
	restrictmouse(0,0,650,485);
	showmouse();
	while(1)
	{
		getmouse(&button,&x,&y);
		gotoxy(35,20);
		if(x>=144&&x<=301&&y>=100&&y<=129&&button==1)
		{
			closegraph();
			clrscr();
			single_result();
		}
		else if(x>=144&&x<=301&&y>=158&&y<=190&&button==1)//checks if exit button is
pressed or not
		{
			closegraph();
			clrscr();
			view_all();
		}
		else if(x>=248&&x<=352&&y>=248&&y<=281&&button==1)//checks if exit button is
pressed or not
		{
			closegraph();
			exit(0);
		}
		else if(x>=78&&x<=196&&y>=249&&y<=281&&button==1)//checks if exit button is
pressed or not
		{
			closegraph();
			menu();
```

```
            }
        }
}
void single_result ()
{
        int  id1,i,flag=-1,j;
        float  total_gp=0,gpa;
        printf("Enter  Id:");
        scanf("%d",&id1);
        for (i=0;i<5;i++)
                if(id1==st[i].id)
                {
                        flag=1;
                        break;
                }
        if(flag==1)
        {
                for (j=0;j<5;j++)
                {
                        st[i].gp[j]=s_gp(st[i].mark[j]);
                        total_gp+=st[i].gp[j];
                }
                gpa=total_gp/5;
                grd(gpa,i);
                output (i);
                printf("\nPress any key to continue.....");
                getch();
                menu2();
        }
        else
        {
                printf("NOT FOUND.");
                printf("\nPress any key to continue.....");
                getch();
                menu2();
        }

}
void view_all()
{
        float  total_gp,gpa;
        int  i,j;
        for (i=0;i<5;i++)
        {
                total_gp=0;
                for (j=0;j<5;j++)
                {
                        st[i].gp[j]=s_gp(st[i].mark[j]);
                        total_gp+=st[i].gp[j];
                }
                gpa=total_gp/5;
                grd(gpa,i);
                getch();
        }
        for (i=0;i<5;i++)
```

```
	{
		printf("\n %d student ",i+1);
		printf("\nStudent name:%s",st[i].name);
		printf("\nStudent Id:%d",st[i].id);
		printf("\nStudent Grade:%s",st[i].grade);
	}
	printf("\nPress any key to continue.....");
	getch();
	menu2();
}
float s_gp(int mark)
{
	float gp;
	if(mark>89)
		gp=4;
	else if(mark>79)
		gp=3.75;
	else if(mark>69)
		gp=3.5;
	else if(mark>59)
		gp=3.25;
	else if(mark>49)
		gp=3;
	else
		gp=0;
	return gp;
}
void grd(float gpa1,int i)
{
	if(gpa1==4)
		strcpy(st[i].grade,"A+");
	else if(gpa1>=3.75)
		strcpy(st[i].grade,"A");
	else if(gpa1>=3.5)
		strcpy(st[i].grade,"A- ");
	else if(gpa1>=3.25)
		strcpy(st[i].grade,"B+");
	else if(gpa1>=3)
		strcpy(st[i].grade,"B");
	if(gpa1<3)
		strcpy(st[i].grade,"F");
}
void output(int i)
{
	clrscr();
	printf("\nStudent Name:%s",st[i].name);
	printf("\nStudent ID:%d",st[i].id);
	printf("\nStudent Grade:%s",st[i].grade);
}

void message()
{
	char mnu[30];
	setcolor(WHITE);
	rectangle(637,350,420,60);
```

```
        set color (11);
        sprint f(mnu,"Develobed by :");
        set t ext st yle(TRIPLEX_FONT,0,1);
        out t ext xy(440,60,mnu);

        sprint f(mnu,"Shamim Ebna hasan");
        out t ext xy(440,100,mnu);

        sprint f(mnu,"ID:");
        out t ext xy(440,140,mnu);

        sprint f(mnu,"CSE- 02605493");
        out t ext xy(440,180,mnu);

        sprint f(mnu,"EMAIL:");
        out t ext xy(440,220,mnu);

        sprint f(mnu,"badboy007007@gmail.com");
        out t ext xy(440,260,mnu);


}
unsigned init mouse()
{
        _AX=0;
        genint er r upt (0x33);   //Gener at e Inpt er r upt
        r et ur n _AX;
}

void show mouse()
{
        _AX=1;
        genint er r upt (0x33);
}

void hidemouse()
{
        _AX=2;
        genint er r upt (0x33);
}

void r est r ict mouse(int  x1,int  y1,int  x2,int  y2)
{
        _AX=7;
        _CX=x1;
        _DX=x2;
        genint er r upt (0x33);
        _AX=8;
        _CX=y1;
        _DX=y2;
        genint er r upt (0x33);
}

void get mouse(int  *but t on,int  *x,int  *y)
{
```

```
        _AX=3;
        genint er r upt (0x33);
        *but t on=_BX;
        *x=_CX;
        *y=_DX;
}
```