//A C++ PROGRAM TO MAINTAIN THE RECORDS OF A CLASS.  
  
#include  
#include  
#include  
#include  
#include  
#include  
void insert1();  
void subj();  
void top\_eng();  
void fail\_eng();  
void avg\_eng();  
void top\_maths();  
void fail\_maths();  
void avg\_maths();  
void top\_sc();  
void fail\_sc();  
void avg\_sc();  
  
class student { int rollno;  
char name[35];  
float m\_eng;  
float m\_maths;  
float m\_sc;  
float perc;  
char grade;  
public:  
student()  
{m\_eng=0;  
m\_maths=0;  
m\_sc=0;  
perc=0;  
grade= ' ';  
}  
void getdata(int x);  
void putdata();  
void read();  
int getrln();  
void calcres();  
void disp1(int);  
float ret\_m\_eng()  
{ return m\_eng; }  
float ret\_m\_maths()  
{ return m\_maths; }  
float ret\_m\_sc()  
  
  
  
{ return m\_sc; }  
char \*ret\_name()  
{ return name; }  
};  
  
void student::getdata(int x)  
{  
gotoxy(21,20);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(21,21);cout<<"º º";  
gotoxy(21,22);cout<<"º ROLL NUMBER : º";  
gotoxy(21,23);cout<<"º º";  
gotoxy(21,24);cout<<"º NAME : º";  
gotoxy(21,25);cout<<"º º";  
gotoxy(21,26);cout<<"º MARKS IN :- º";  
gotoxy(21,27);cout<<"º º";  
gotoxy(21,28);cout<<"º ENGLISH : º";  
gotoxy(21,29);cout<<"º º";  
gotoxy(21,30);cout<<"º MATHS : º";  
gotoxy(21,31);cout<<"º º";  
gotoxy(21,32);cout<<"º SCIENCE : º";  
gotoxy(21,33);cout<<"º º";  
gotoxy(21,34);cout<<"º º";  
gotoxy(21,35);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
rollno=x;  
gotoxy(42,22);cout<<rollno;  
gotoxy(42,24);gets(name);  
gotoxy(42,28);cin>>m\_eng;  
gotoxy(42,30);cin>>m\_maths;  
gotoxy(42,32);cin>>m\_sc;  
  
}  
  
void student::putdata()  
{ gotoxy(21,20);cout<<"ÇÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄ¶";  
gotoxy(21,21);cout<<"º º";  
gotoxy(21,22);cout<<"º ROLL NUMBER : º";  
gotoxy(42,22);cout<<rollno;  
gotoxy(21,23);cout<<"º º";  
gotoxy(21,24);cout<<"º NAME : ";  
gotoxy(42,24);cout<<name;  
gotoxy(21,25);cout<<"º º";  
gotoxy(21,26);cout<<"º MARKS :- º";  
gotoxy(21,27);cout<<"º º";  
gotoxy(21,28);cout<<"º ENGLISH : º";  
gotoxy(42,28);cout<<m\_eng;  
gotoxy(21,29);cout<<"º º"  
gotoxy(21,30);cout<<"º MATHS : º";   
  
  
  
gotoxy(42,30);cout<<m\_maths;  
gotoxy(21,31);cout<<"º º";  
gotoxy(21,32);cout<<"º SCIENCE : º";  
gotoxy(42,32);cout<<m\_sc;  
gotoxy(21,33);cout<<"º º";  
gotoxy(21,38);cout<<"º º";  
gotoxy(21,39);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
calcres();  
}  
  
void student::read()  
{  
gotoxy(21,20);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(21,21);cout<<"º º";  
gotoxy(21,22);cout<<"º NAME : º";  
gotoxy(21,23);cout<<"º º";  
gotoxy(21,24);cout<<"º MARKS :- º";  
gotoxy(21,25);cout<<"º º";  
gotoxy(21,26);cout<<"º ENGLISH : º";  
gotoxy(21,27);cout<<"º º";  
gotoxy(21,28);cout<<"º MATHS : º";  
gotoxy(21,29);cout<<"º º";  
gotoxy(21,30);cout<<"º SCIENCE : º";  
gotoxy(21,31);cout<<"º º";  
gotoxy(21,32);cout<<"º º";  
gotoxy(21,33);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
gotoxy(42,22);gets(name);  
gotoxy(42,26);cin>>m\_eng;  
gotoxy(42,28);cin>>m\_maths;  
gotoxy(42,30);cin>>m\_sc;  
}  
  
int student::getrln()  
{ return rollno;  
}  
  
void student::calcres()  
{ int total;  
total=m\_eng+m\_maths+m\_sc;  
perc=total/3;  
gotoxy(21,34);cout<<"º PERCENTAGE : º";  
gotoxy(42,34);cout<<perc<<" %="" ";  
gotoxy(21,35);cout<<"º º";  
if(perc>=80)  
grade='A';  
else if(perc>=70)  
grade='B';  
else if(perc>=60)  
  
  
grade='C';  
else if(perc>=50)  
grade='D';  
else if(perc>=40)  
grade='E';  
else  
grade='F';  
gotoxy(21,36);cout<<"º GRADE : º";  
gotoxy(42,36);cout<<grade;  
gotoxy(21,37);cout<<"º º";  
}  
void student::disp1(int x)  
{ int total=m\_eng+m\_maths+m\_sc;  
perc=total/3;  
if(perc>=80)  
grade='A';  
else if(perc>=70)  
grade='B';  
else if(perc>=60)  
grade='C';  
else if(perc>=50)  
grade='D';  
else if(perc>=40)  
grade='E';  
else  
grade='F';  
gotoxy(7,x);cout<<rollno;  
gotoxy(15,x);cout<<name;  
gotoxy(34,x);cout<<m\_eng;  
gotoxy(44,x);cout<<m\_maths;  
gotoxy(53,x);cout<<m\_sc;  
gotoxy(64,x);cout<<perc;  
gotoxy(76,x);cout<<grade;  
}  
  
  
void disp2(int);  
void disp();  
  
void search(int rno)  
{ student stud;  
int flag=0;  
fstream fin("student.dat",ios::in|ios::binary);  
if(fin==NULL)  
{ cout<<"\nFile does not exist.";  
return;  
}  
while(fin.read((char\*)&stud,sizeof(student)))  
  
  
{ if(rno==stud.getrln())  
{ gotoxy(21,16);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(21,17);cout<<"º º";  
gotoxy(21,18);cout<<"º STUDENT DETAILS ARE AS FOLLOWS : º";  
gotoxy(21,19);cout<<"º º";  
gotoxy(21,20);cout<<" ";  
stud.putdata();  
flag=1;  
break;  
}  
}  
if(flag==0)  
{ gotoxy(14,20);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(14,21);cout<<"º º";  
gotoxy(14,22);cout<<"º THIS ROLL NUMBER DOES NOT EXIST º";  
gotoxy(14,23);cout<<"º º";  
gotoxy(14,24);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
}  
fin.close();  
}  
void insert(student st)  
{ student stud1;  
int p=0, c=1,flag=0, i, rec;  
fstream fin("student.dat",ios::in|ios::binary);  
while(fin)  
{  
fin.read((char\*)&stud1,sizeof(student));  
if(stud1.getrln()== st.getrln())  
{  
gotoxy(14,20);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(14,21);cout<<"º º";  
gotoxy(14,22);cout<<"º THIS ROLL NUMBER ALREADY EXISTS º";  
gotoxy(14,23);cout<<"º º";  
gotoxy(14,24);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
flag=1;  
break;  
}  
}  
fin.close();  
if (flag==0)  
{  
if(st.getrln()<stud1.getrln())  
p++;  
fin.open("student.dat",ios::in|ios::binary);  
fstream fout("temp.dat",ios::out|ios::binary);  
while(c<p)  
{ fin.read((char\*)&stud1,sizeof(student));  
fout.write((char\*)&stud1,sizeof(student));  
  
  
c++;  
}  
fout.write((char\*)&st,sizeof(student));  
while(fin.read((char\*)&stud1,sizeof(student)))  
{ fout.write((char\*)&stud1,sizeof(student));  
}  
fin.close();  
fout.close();  
remove("student.dat");  
rename("temp.dat","student.dat");  
}  
}  
  
void del(int rno)  
{ student stud;  
int flag=0,rec;  
fstream fin("student.dat",ios::in|ios::binary);  
if (fin==NULL)  
{ cout<<"\n File does not exist.";  
return;  
}  
fstream fout("temp.dat",ios::out|ios::binary);  
while(fin.read((char\*)&stud,sizeof(student)))  
{ if(rno!=stud.getrln())  
fout.write((char\*)&stud,sizeof(student));  
else  
flag=1;  
}  
if (flag==0)  
{ gotoxy(14,20);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(14,21);cout<<"º º";  
gotoxy(14,22);cout<<"º THIS ROLL NUMBER DOES NOT EXIST º";  
gotoxy(14,23);cout<<"º º";  
gotoxy(14,24);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
}  
else  
{   
gotoxy(24,20);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(24,21);cout<<"º º";  
gotoxy(24,22);cout<<"º RECORD DELETED º";  
gotoxy(24,23);cout<<"º º";  
gotoxy(24,24);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
}  
fin.close();  
fout.close();  
  
  
remove("student.dat");  
rename("temp.dat","student.dat");  
}  
  
  
  
void modify(int rno)  
{ student stud;  
int flag=0,rec=0;  
fstream fin("student.dat",ios::in|ios::out|ios::binary);  
if(fin==NULL)  
{ cout<<"\n File does not exist.";  
return;  
}  
while(fin.read((char\*)&stud,sizeof(student)))  
{ rec++;  
if(rno==stud.getrln())  
{ gotoxy(21,16);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(21,17);cout<<"º º";  
gotoxy(21,18);cout<<"º STUDENT DETAILS AT PRESENT ARE : º";  
gotoxy(21,19);cout<<"º º";  
gotoxy(21,20);cout<<" ";  
stud.putdata();  
gotoxy(22,42);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(22,43);cout<<"º º";  
gotoxy(22,44);cout<<"º Press any key to modify º";  
gotoxy(22,45);cout<<"º º";  
gotoxy(22,46);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
getch();  
clrscr();  
gotoxy(12,10);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(12,11);cout<<"º º";  
gotoxy(12,12);cout<<"º ENTER THE NEW DETAILS OF THE STUDENT : º";  
gotoxy(12,13);cout<<"º º";  
gotoxy(12,14);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
stud.read();  
fin.seekg((rec-1)\*sizeof(student),ios::beg);  
fin.write((char\*)&stud,sizeof(student));  
flag=1;  
}  
}  
if(flag==0)  
{  
gotoxy(14,20);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(14,21);cout<<"º º";  
gotoxy(14,22);cout<<"º THIS ROLL NUMBER DOES NOT EXIST º";  
gotoxy(14,23);cout<<"º º";  
gotoxy(14,24);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
  
  
}  
else  
  
{  
gotoxy(24,39);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(24,40);cout<<"º º";  
gotoxy(24,41);cout<<"º RECORD MODIFIED º";  
gotoxy(24,42);cout<<"º º";  
gotoxy(24,43);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
return;  
}  
  
fin.close();  
}  
  
  
  
void display()  
{ student stud;  
fstream fin("student.dat",ios::in|ios::binary);  
if(fin==NULL)  
{ cout<<"\nFile does not exist.";  
return;  
}  
clrscr();  
gotoxy(21,16);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(21,17);cout<<"º º";  
gotoxy(21,18);cout<<"º STUDENT DETAILS ARE AS FOLLOWS : º";  
gotoxy(21,19);cout<<"º º";  
gotoxy(21,20);cout<<" ";  
fin.seekg(0);  
while(fin)  
{fin.read((char\*)&stud,sizeof(student));  
stud.putdata();  
getch();  
}  
fin.close();  
}  
  
  
int mainmenu()  
{  
int choice;  
gotoxy(25,14);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(25,15);cout<<"º º";  
gotoxy(25,16);cout<<"º±±±±±±±±±±± MAIN MENU ±±±±±±±±±±±º";  
gotoxy(25,17);cout<<"º º";  
gotoxy(25,18);cout<<"ÇÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄ¶";  
gotoxy(25,19);cout<<"º º";  
gotoxy(25,20);cout<<"º º";  
gotoxy(25,21);cout<<"º 1> FILE MAINTENANCE º";  
gotoxy(25,22);cout<<"º º";  
  
gotoxy(25,23);cout<<"º º";  
gotoxy(25,24);cout<<"º 2> STUDENT REPORT º";  
gotoxy(25,25);cout<<"º º";  
gotoxy(25,26);cout<<"º º";  
gotoxy(25,27);cout<<"º 3> EXIT º";  
gotoxy(25,28);cout<<"º º";  
gotoxy(25,29);cout<<"º º";  
gotoxy(25,30);cout<<"ÇÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄ¶";  
gotoxy(25,31);cout<<"º º";  
gotoxy(25,32);cout<<"º Enter your choice : [ ] º";  
gotoxy(25,33);cout<<"º º";  
gotoxy(25,34);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
gotoxy(53,32);cin>>choice;  
return choice;  
}  
  
  
int submenu1()  
{  
int ch;  
gotoxy(25,10);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(25,11);cout<<"º º";  
gotoxy(25,12);cout<<"º±±±±±±±± FILE MAINTENANCE ±±±±±±±±º";  
gotoxy(25,13);cout<<"º º";  
gotoxy(25,14);cout<<"ÇÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄ¶";  
gotoxy(25,15);cout<<"º º";  
gotoxy(25,16);cout<<"º 1> INSERT RECORD º";  
gotoxy(25,17);cout<<"º º";  
gotoxy(25,18);cout<<"º º";  
gotoxy(25,19);cout<<"º 2> SEARCH FOR RECORD º";  
gotoxy(25,20);cout<<"º º";  
gotoxy(25,21);cout<<"º º";  
gotoxy(25,22);cout<<"º 3> DELETE RECORD º";  
gotoxy(25,23);cout<<"º º";  
gotoxy(25,24);cout<<"º º";  
gotoxy(25,25);cout<<"º 4> MODIFY RECORD º";  
gotoxy(25,26);cout<<"º º";  
gotoxy(25,27);cout<<"º º";  
gotoxy(25,28);cout<<"º 6> RETURN TO MAIN MENU º";  
gotoxy(25,29);cout<<"º º";  
gotoxy(25,30);cout<<"ÇÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄ¶ ";  
gotoxy(25,31);cout<<"º º";  
gotoxy(25,32);cout<<"º Enter your choice : [ ] º";  
gotoxy(25,33);cout<<"º º";  
gotoxy(25,34);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
gotoxy(53,32);cin>>ch;  
return ch;  
}  
  
void ins()  
{  
gotoxy(29,2);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(29,3);cout<<"º º";  
gotoxy(29,4);cout<<"º±±±±± 1> INSERT ±±±±±º";  
gotoxy(29,5);cout<<"º º";  
gotoxy(29,6);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
gotoxy(12,10);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(12,11);cout<<"º º";  
gotoxy(12,12);cout<<"º ENTER THE DETAILS OF THE STUDENT RECORD TO BE ADDED :º";  
gotoxy(12,13);cout<<"º º";  
gotoxy(12,14);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
}  
int sear()  
{  
int rn;  
gotoxy(29,2);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(29,3);cout<<"º º";  
gotoxy(29,4);cout<<"º±±±±± 2> SEARCH ±±±±±º";  
gotoxy(29,5);cout<<"º º";  
gotoxy(29,6);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
gotoxy(14,10);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(14,11);cout<<"º º";  
gotoxy(14,12);cout<<"º ENTER THE ROLL NUMBER TO BE SEARCHED : [ ] º";  
gotoxy(14,13);cout<<"º º";  
gotoxy(14,14);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
gotoxy(60,12);cin>>rn;  
return rn;  
}  
  
  
int dele()  
{  
int rn;  
gotoxy(29,2);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(29,3);cout<<"º º";  
gotoxy(29,4);cout<<"º±±±±± 3> DELETE ±±±±±º";  
gotoxy(29,5);cout<<"º º";  
gotoxy(29,6);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
gotoxy(14,10);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(14,11);cout<<"º º";  
gotoxy(14,12);cout<<"º ENTER THE ROLL NUMBER TO BE DELETED : [ ] º";  
gotoxy(14,13);cout<<"º º";  
gotoxy(14,14);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
  
  
gotoxy(59,12);cin>>rn;  
return rn;  
}  
int modi()  
{  
int rn;  
gotoxy(29,2);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(29,3);cout<<"º º";  
gotoxy(29,4);cout<<"º±±±±± 4> MODIFY ±±±±±º";  
gotoxy(29,5);cout<<"º º";  
gotoxy(29,6);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
gotoxy(14,10);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(14,11);cout<<"º º";  
gotoxy(14,12);cout<<"º ENTER THE ROLL NUMBER TO BE MODIFIED : [ ] º";  
gotoxy(14,13);cout<<"º º";  
gotoxy(14,14);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
gotoxy(60,12);cin>>rn;  
return rn;  
}  
  
  
  
int submenu2()  
{ int cho;  
gotoxy(25,14);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(25,15);cout<<"º º";  
gotoxy(25,16);cout<<"º±±±±±±±±± STUDENT REPORT ±±±±±±±±±º";  
gotoxy(25,17);cout<<"º º";  
gotoxy(25,18);cout<<"ÇÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄ¶";  
gotoxy(25,19);cout<<"º º";  
gotoxy(25,20);cout<<"º º";  
gotoxy(25,21);cout<<"º 1> CLASS REPORT º";  
gotoxy(25,22);cout<<"º º";  
gotoxy(25,23);cout<<"º º";  
gotoxy(25,24);cout<<"º 2> INDIVIDUAL REPORT º";  
gotoxy(25,25);cout<<"º º";  
gotoxy(25,26);cout<<"º º";  
gotoxy(25,27);cout<<"º 3> SUBJECTWISE REPORT º";  
gotoxy(25,28);cout<<"º º";  
gotoxy(25,29);cout<<"º º";  
gotoxy(25,30);cout<<"º 4> RETURN TO MAIN MENU º";  
gotoxy(25,31);cout<<"º º";  
gotoxy(25,32);cout<<"º º";  
gotoxy(25,33);cout<<"ÇÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄÄ¶";  
gotoxy(25,34);cout<<"º º";  
gotoxy(25,35);cout<<"º Enter your choice : [ ] º";  
gotoxy(25,36);cout<<"º º";  
gotoxy(25,37);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
  
  
gotoxy(53,35);cin>>cho;  
return cho;  
}  
  
void clsrep()  
{   
gotoxy(24,4);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(24,5);cout<<"º º";  
gotoxy(24,6);cout<<"º±±±±±±± 1> CLASS REPORT ±±±±±±±º";  
gotoxy(24,7);cout<<"º º";  
gotoxy(24,8);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
}  
  
int indrep()  
{   
int rn;  
gotoxy(23,2);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(23,3);cout<<"º º";  
gotoxy(23,4);cout<<"º±±±±±±± 2> INDIVIDUAL REPORT ±±±±±±±º";  
gotoxy(23,5);cout<<"º º";  
gotoxy(23,6);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
gotoxy(14,10);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(14,11);cout<<"º º";  
gotoxy(14,12);cout<<"º ENTER THE ROLL NUMBER TO BE DISPLAYED : [ ] º";  
gotoxy(14,13);cout<<"º º";  
gotoxy(14,14);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
gotoxy(61,12);cin>>rn;  
return rn;  
}  
void main()  
{ student stud;  
int main\_m,rnm,sub\_m1,sub\_m2;  
do  
{ clrscr();  
main\_m=mainmenu();  
switch(main\_m)  
{case 1:clrscr();  
sub\_m1=submenu1();  
switch(sub\_m1)  
  
{ case 1:clrscr();  
ins();  
insert1();  
break;  
case 2:clrscr();  
rnm=sear();  
search(rnm);  
break;  
  
  
case 3:clrscr();  
rnm=dele();  
del(rnm);  
break;  
case 4:clrscr();  
rnm=modi();  
modify(rnm);  
break;  
case 5:break;  
}  
break;  
case 2: clrscr();  
sub\_m2=submenu2();  
switch(sub\_m2)  
{ case 1:clrscr();  
clsrep();  
disp();  
break;  
case 2:clrscr();  
rnm=indrep();  
disp2(rnm);  
break;  
case 3:clrscr();  
subj();  
break;  
case 4:break;  
}  
break;  
case 3: exit(0);  
}  
getch();  
}while(main\_m>=1 && main\_m<=3);  
}  
void disp()  
{  
student s1;  
fstream f1;  
f1.open("student.dat",ios::in|ios::binary);  
if(!f1)  
{  
cout<<"Error in opening file";  
return;  
}  
gotoxy(3,10);cout<<"ÉÍÍÍÍÍÍÍÍÍËÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍËÍÍÍÍÍÍÍÍÍÍËÍÍÍÍÍÍÍËÍÍÍÍÍÍÍÍÍËÍÍÍÍÍÍÍÍÍÍÍÍËÍÍÍÍÍÍÍ»";  
gotoxy(3,11);cout<<"º Roll No º Name º English º Maths º Science º Percentage º Grade º";  
gotoxy(3,12);cout<<"ÈÍÍÍÍÍÍÍÍÍÊÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÊÍÍÍÍÍÍÍÍÍÍÊÍÍÍÍÍÍÍÊÍÍÍÍÍÍÍÍÍÊÍÍÍÍÍÍÍÍÍÍÍÍÊÍÍÍÍÍÍÍ¼";  
int i=14;  
f1.seekg(0);  
  
  
while(f1)  
{  
f1.read((char \*)&s1,sizeof(student));  
s1.disp1(i);  
i=i+2;  
}  
gotoxy(3,i);cout<<"ÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ";  
i=0;  
f1.close();  
getch();  
}  
void insert1()  
{  
student stud1;  
fstream f;  
f.open("student.dat",ios::in|ios::binary);  
f.seekg(0);  
int i=1;  
  
while(f)  
{  
f.read((char \*)&stud1,sizeof(student));  
i=stud1.getrln()+1;  
}  
f.close();  
f.open("student.dat",ios::app|ios::binary);  
stud1.getdata(i);  
f.write((char \*)&stud1,sizeof(student));  
f.close();  
}  
void disp2(int rno)  
{ student stud;  
int flag=0,rec=0;  
fstream fin("student.dat",ios::in|ios::out|ios::binary);  
if(fin==NULL)  
{ cout<<"\n File does not exist.";  
return;  
}  
while(fin.read((char\*)&stud,sizeof(student)))  
{ rec++;  
if(rno==stud.getrln())  
{  
gotoxy(21,16);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(21,17);cout<<"º º";  
gotoxy(21,18);cout<<"º STUDENT DETAILS ARE : º";  
gotoxy(21,19);cout<<"º º";  
gotoxy(21,20);cout<<" ";  
stud.putdata();  
  
  
getch();  
flag=1;  
}  
}  
if(flag==0)  
{  
gotoxy(14,20);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(14,21);cout<<"º º";  
gotoxy(14,22);cout<<"º THIS ROLL NUMBER DOES NOT EXIST º";  
gotoxy(14,23);cout<<"º º";  
gotoxy(14,24);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
}  
fin.close();  
}  
void subj()  
{ char \* subj\_nam[] = { "ENGLISH","MATHS","SCIENCE"};  
char \* subj;  
gotoxy(23,2);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(23,3);cout<<"º º";  
gotoxy(23,4);cout<<"º±±±±±±± 3> SUBJECTWISE REPORT ±±±±±±º";  
gotoxy(23,5);cout<<"º º";  
gotoxy(23,6);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
gotoxy(4,10);cout<<"ÉÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ»";  
gotoxy(4,11);cout<<"º º";   
gotoxy(4,12);cout<<"º ENTER THE SUBJECT NAME ( English, Maths or Science ) : [ º";  
gotoxy(4,13);cout<<"º º";  
gotoxy(4,14);cout<<"ÈÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍÍ¼";  
gotoxy(65,12);  
gets(subj);  
int length, i;  
length = strlen(subj);  
for (i=0; i  
{  
subj[i] = toupper(subj[i]);  
}  
if((strcmp(subj\_nam[0],subj))==0)  
{ top\_eng();  
avg\_eng();  
fail\_eng();  
}  
if((strcmp(subj\_nam[1],subj))==0)  
{ top\_maths();  
avg\_maths();  
fail\_maths();  
}  
if((strcmp(subj\_nam[2],subj))==0)  
{ top\_sc();  
avg\_sc();  
  
  
fail\_sc();  
}  
}  
  
//---------------------------------------------------------------  
void top\_eng()  
{ student s1,s2;  
fstream fin;  
int x=0;  
fin.open("student.dat",ios::in|ios::binary);  
if ( fin==NULL)  
{ cout<<"\nFile does not exist";  
}  
while(fin)  
{  
fin.read((char \*)&s1,sizeof(student));  
if(s1.ret\_m\_eng() > x)  
{ x=s1.ret\_m\_eng();  
s2=s1;  
}  
}  
fin.close();  
cout<<"\n highest marks "<<s2.ret\_m\_eng()<<" obtained="" by="" "<<s2.ret\_name();  
}  
void fail\_eng()  
{ student s1;  
fstream fin;  
float f=0,r=0,passper;  
fin.open("student.dat",ios::in|ios::binary);  
if ( fin==NULL)  
{ cout<<"\nFile does not exist";  
}  
while(fin.read((char \*)&s1,sizeof(student)))  
{ r++;  
if(s1.ret\_m\_eng() < 40)  
{ f++;}  
}  
cout<<"\nNo of failures "<<f;  
passper=((r-f)/r)\*100;  
cout<<"\nPass percentage "<<passper;  
}  
void avg\_eng()  
{ student s1;  
fstream fin;  
float f=0,i=0,sum=0;  
fin.open("student.dat",ios::in|ios::binary);  
if ( fin==NULL)  
{ cout<<"\nFile does not exist";  
  
  
}  
while(fin.read((char \*)&s1,sizeof(student)))  
{ i++;  
sum=sum + s1.ret\_m\_eng();  
}  
float average = sum/i;  
cout<<"\nClass average "<<average;  
}  
  
//---------------------------------------------------------------  
void top\_maths()  
{ student s1,s2;  
fstream fin;  
int x=0;  
fin.open("student.dat",ios::in|ios::binary);  
if ( fin==NULL)  
{ cout<<"\nFile does not exist";  
}  
while(fin)  
{  
fin.read((char \*)&s1,sizeof(student));  
if(s1.ret\_m\_maths() > x)  
{ x=s1.ret\_m\_maths();  
s2=s1;  
}  
}  
fin.close();  
cout<<"\n highest marks "<<s2.ret\_m\_maths()<<" obtained="" by="" "<<s2.ret\_name();  
}  
void fail\_maths()  
{ student s1;  
fstream fin;  
float f=0,r=0,passper;  
fin.open("student.dat",ios::in|ios::binary);  
if ( fin==NULL)  
{ cout<<"\nFile does not exist";  
}  
while(fin.read((char \*)&s1,sizeof(student)))  
{ r++;  
if(s1.ret\_m\_maths() < 40)  
{ f++;}  
}  
cout<<"\nNo of failures "<<f;  
passper=((r-f)/r)\*100;  
cout<<"\nPass percentage "<<passper;  
}  
void avg\_maths()  
{ student s1;  
  
  
fstream fin;  
float f=0,i=0,sum=0;  
fin.open("student.dat",ios::in|ios::binary);  
if ( fin==NULL)  
{ cout<<"\nFile does not exist";  
}  
while(fin.read((char \*)&s1,sizeof(student)))  
{ i++;  
sum=sum + s1.ret\_m\_maths();  
}  
float average = sum/i;  
cout<<"\nClass average "<<average;  
}  
  
//---------------------------------------------------------------  
void top\_sc()  
{ student s1,s2;  
fstream fin;  
int x=0;  
fin.open("student.dat",ios::in|ios::binary);  
if ( fin==NULL)  
{ cout<<"\nFile does not exist";  
}  
while(fin)  
{  
fin.read((char \*)&s1,sizeof(student));  
if(s1.ret\_m\_sc() > x)  
{ x=s1.ret\_m\_sc();  
s2=s1;  
}  
}  
fin.close();  
cout<<"\n highest marks "<<s2.ret\_m\_sc()<<" obtained="" by="" "<<s2.ret\_name();  
}  
void fail\_sc()  
{ student s1;  
fstream fin;  
float f=0,r=0,passper;  
fin.open("student.dat",ios::in|ios::binary);  
if ( fin==NULL)  
{ cout<<"\nFile does not exist";  
}  
while(fin.read((char \*)&s1,sizeof(student)))  
{ r++;  
if(s1.ret\_m\_sc() < 40)  
{ f++;}  
}  
cout<<"\nNo of failures "<<f;  
  
  
passper=((r-f)/r)\*100;  
cout<<"\nPass percentage "<<passper;  
}  
  
  
void avg\_sc()  
{ student s1;  
fstream fin;  
float f=0,i=0,sum=0;  
fin.open("student.dat",ios::in|ios::binary);  
if ( fin==NULL)  
{ cout<<"\nFile does not exist";  
}  
while(fin.read((char \*)&s1,sizeof(student)))  
{ i++;  
sum=sum + s1.ret\_m\_sc();  
}  
float average = sum/i;  
cout<<"\nClass average "<<average;  
}</average;  
</passper;  
</f;  
</s2.ret\_m\_sc()<<"></average;  
</passper;  
</f;  
</s2.ret\_m\_maths()<<"></average;  
</passper;  
</f;  
</s2.ret\_m\_eng()<<"></p)  
</stud1.getrln())  
</grade;  
</perc;  
</m\_sc;  
</m\_maths;  
</m\_eng;  
</name;  
</rollno;  
</grade;  
</perc<<"></m\_sc;  
</m\_maths;  
</m\_eng;  
</name;  
</rollno;  
</rollno;