#include<iostream>

using namespace std;

class complex

{ public:

int real,img;

complex()

{

real=0;

img=0;

}

void display()

{

if(img<0)

{

cout<<real<<img<<"i"<<endl;

}

else

cout<<real<<"+"<<img<<"i"<<endl;

}

void accept()

{

cout<<"\n Enter the real number=";

cin>>real;

cout<<"\n Enter the imaginary number=";

cin>>img;

}

complex operator+(complex a)

{

complex temp;

temp.real=real+a.real;

temp.img=img+a.img;

return temp;

}

complex operator\*(complex b)

{

complex temp;

temp.real=((real\*b.real)-(img\*b.img));

temp.img=((real\*b.img)+(img\*b.real));

return temp;

}

};

int main()

{

complex obj1,obj2,result;

cout<<"Enter the first complex number=";

obj1.accept();

cout<<"\n Enter the second comlex number=";

obj2.accept();

obj1.display();

obj2.display();

result=obj1+obj2;

cout<<"\n Addition of two complex number is: ";

result.display();

result=obj1\*obj2;

cout<<"\n Multiplication of two numbers is : ";

result.display();

return 0;

}

#include<iostream>

using namespace std;

class studentinfo

{

public:

int roll\_no,class\_name;

char name[20],contact\_address[30],telephone\_number[20],driving\_license\_number[20],date\_of\_birth[10],blood\_group[20];

void accept()

{

cout<<"Enter your name=";

cin>>name;

cout<<"Enter your roll number=";

cin>>roll\_no;

cout<<"Enter your class name=";

cin>>class\_name;

cout<<"Enter your contact address=";

cin>>contact\_address;

cout<<"Enter your telephone number=";

cin>>telephone\_number;

cout<<"Enter your driving license number=";

cin>>driving\_license\_number;

cout<<"Enter your date of Birth=";

cin>>date\_of\_birth;

cout<<"Enter your blood group=";

cin>>blood\_group;

}

void display()

{

cout<<"\n Your name is="<<name;

cout<<"\n Your roll number is="<<roll\_no;

cout<<"\n Your class name is="<<class\_name;

cout<<"\n Your contact address

is="<<contact\_address;

cout<<"\n Your telephone number

is="<<telephone\_number;

cout<<"\n Your driving license number

is="<<driving\_license\_number;

cout<<"\n Your date of birth is="<<date\_of\_birth;

cout<<"\n Your blood group is="<<blood\_group;

}

};

int main()

{

studentinfo obj;

obj.accept();

obj.display();

return 0;

}

#include<iostream>

#include<string.h>

using namespace std;

class publication

{

protected:

char title[20];

float price;

publication() // Default constructor

{

price=1;

strcpy(title,"SNJB");

}

};

class Book:public publication // Inheritance Declaration

{

public:

int page\_count;

Book()

{

page\_count=1;

}

void accept()

{

cout<<"\n Enter the Title of the Book=";

cin>>title;

cout<<"\n Enter the price of the Book=";

cin>>price;

cout<<"\n Enter the page count of the Book=";

cin>>page\_count;

}

void display()

{

cout<<"\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*";

cout<<"Book Name="<<title<<endl;

cout<<"Book Price="<<price<<endl;

cout<<"Page Count="<<page\_count;

}

};

class casette:public publication

{

public:

float timer;

void accept()

{

cout<<"\n Enter the title of the Casette=";

cin>>title;

cout<<"\n Enter the price of the casette=";

cin>>price;

cout<<"\n Enter the Time=";

cin>>timer;

}

void display()

{

cout<<endl<<"\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Casette Details\*\*\*\*\*\*\*\*\*\*\*";

cout<<"Cassette Name="<<title<<endl;

cout<<"Cassette Price="<<price<<endl;

cout<<"Timer="<<timer;

}

};

int main()

{

int ch;

cout<<"1)Book"<<endl;

cout<<"2)Cassette"<<endl;

cout<<"Enter your choice:";

cin>>ch;

if(ch==1)

{

Book obj1;

obj1.accept();

obj1.display();

}

else

{

casette obj2;

obj2.accept();

obj2.display();

}

return 0;

}

#include<iostream>

#include<fstream>

using namespace std;

int main()

{

char name[20];

char msg[100];

cout<<"\n Enter your name=";

cin>>name;

ifstream fin;

ofstream fout;

fout.open("handling.txt");

fout<<"Your name is="<<name;

fout.close();

cout<<"\n Data writing part completed....";

fin.open("handling.txt");

fin>>msg;

cout<<"\n Data available in the file is as follows..."<<endl;

cout<<msg;

return 0;

}

#include<iostream>

using namespace std;

template<class T>

class sorting

{

public:

T a[];

int n;

void accept()

{

cout<<"\n Enter how many numbers you want=";

cin>>n;

cout<<"\n Enter the elements=";

for(int i=0;i<n;i++)

{

cin>>a[i];

} }

void display()

{

for(int i=0;i<n;i++)

{

cout<<a[i]<<endl;

} }

void sort()

{

for(int i=0;i<n;i++)

{

for(int j=i+1;j<n;j++)

{

if(a[j]<a[i])

{

T temp;

temp=a[i];

a[i]=a[j];

a[j]=temp;

} } } } };

int main()

{

sorting<int>s1;

sorting<float>s2;

int ch;

cout<<endl<<"Enter 1 for int ";

cout<<endl<<"Enter 2 for float ";

cout<<endl<<"Enter your choice=";

cin>>ch;

if(ch==1)

{

s1.accept();

cout<<"1.Integer sorting numbers are="<<endl;

s1.sort();

s1.display();

}

else

{

s2.accept();

cout<<"2.Float sorting numbers are="<<endl;

s2.sort();

s2.display();

}

return 0;

}

//Addition of two complex number

#include <iostream>

using namespace std;

class complex

{

public :

int real,img;

complex ()

{

real=img=0;

}

void accept()

{

cout<<"Enter real no = ";

cin >> real;

cout<<endl<<"Enter img no ";

cin>>img;

}

void display ()

{

cout<<real<<"+"<<img<<"i";

}

complex operator +(complex x)

{

complex temp;

temp.real=real+x.real;

temp.img=img+x.img;

return temp;

}

complex operator \*(complex y)

{

complex temp;

temp.real=(real\*y.real)-(img\*y.img);

temp.img=(real\*y.img)+(y.real\*img);

}

};

int main()

{ complex c1,c2,result;

cout<<"Enter first complex number "<<endl;

c1.accept();

cout<<"Enter second complex number "<<endl;

c2.accept();

cout<<"First complex number = ";

c1.display();

cout<<endl<<"Second complex number is = ";

c2.display();

cout<<endl<<"Addition of two complex no is = ";

result=c1+c2;

result.display();

cout<<endl<<"multipication of two complex no is ";

result=c1\*c2;

result.display();

}

#include <iostream>

using namespace std;

class student\_data

{ public:

int roll\_no;

char name[10];

student\_data()

{

roll\_no=0;

cout<<"welcome to stuent database system "<<endl;

}

void accept()

{

cout<<endl<<"enter student roll no ";

cin>>roll\_no;

cout<<endl<<"enter student name ";

cin >> name;

}

void display (student\_data a)

{

cout<<endl<<"roll no of student is "<<a.roll\_no;

cout<<endl<<"name of student is "<<a.name;

}

~student\_data()

{

cout<<endl<<"student data save sucessufully ";

}

};

int main()

{

student\_data s1,s2;

s1.accept();

s2.display(s1);

}