#include<iostream>

#include<cstring>

#include<exception>

using namespace std;

class publication{

protected:string title;

float price;

public:

publication(string t = "No title", float p = 0.0)

{

title=t;

price=p;

}

};

class books:public publication

{

int pages;

public:

books(string t="No title",float p= 0.0, int pa = 0):publication(t,p)

{

pages=pa;

}

void getb()

{

cout<<"Enter the datails of the book :"<<endl;

cout<<"Enter the title of the book :"<<endl;

cin>>title;

//cin.ignore(1,'\n');

//getline(cin,title);

cout<<"Enter the price of the book :"<<endl;

cin>>price;

cout<<"Enter the pages of the book :"<<endl;

cin>>pages;

try

{

if(pages > 500 && pages <1500)

{

if(price >100 && price < 2000)

{

displayb();

}

}

else throw(pages);

}

catch(int i){

cout<<"Caught exception in function of book"<<endl;

cout<<"You entered an invalid data"<<endl;

title = "0";price = 0.0;

pages = 0;

displayb();

throw;

}

}

void displayb()

{

cout<<"The book you entered is :"<<endl<<endl;

cout<<"The entered title is :"<<title<<endl;

cout<<"The entered price is :"<<price<<endl;

cout<<"The entered pages are :"<<pages<<endl;

}

};

class tape:public publication

{

float min;

public:

tape(string t="No title",float p= 0.0, float m = 0.00):publication(t,p)

{

min=m;

}

void gett()

{

cout<<"Enter the details of the tape :"<<endl;

cout<<"Enter the title of the tape :"<<endl;

cin>>title;

//cin.ignore(1,'\n');

//getline(cin,title);

cout<<"Enter the price of the tape :"<<endl;

cin>>price;

cout<<"Enter the pages of the playing time(in minutes) :"<<endl;

cin>>min;

try

{

if(min > 30.00 && min < 90.00)

{

if(price > 500 && price < 1000)

{

displayt();

}}

else throw(min);

}

catch(float f){

cout<<"caught exception in the function of tape"<<endl;

cout<<"you entered an invalid data"<<endl;

title = "0";

price = 0.0;

min = 0.0;

displayt();

throw;

}

}

void displayt()

{

cout<<"The details of tape you entered is :"<<endl<<endl;

cout<<"The entered title is :"<<title<<endl;

cout<<"The entered price is :"<<price<<endl;

cout<<"The entered play time is :"<<min<<endl;

}

};

int main()

{

books b;

tape t;

int choice;

cout<<"Do want to buy a book(Press 1) or a tape(Press 2) :"<<flush;

cin>>choice;

switch(choice)

{

case 1: try

{

b.getb();

}

catch(int i){

cout<<"Caught exception in int main()"<<endl;

}

break;

case 2: try

{

t.gett();

}

catch(float f){

cout<<"Caught exception in int main()"<<endl;}

break;

default:cout<<"Entered bad choice!! Try again!!"<<endl;

}

return 0;

}

OUTPUT

Do want to buy a book(Press 1) or a tape(Press 2) :2

Enter the details of the tape :

Enter the title of the tape :tape real

Enter the price of the tape :600

Enter the pages of the playing time(in minutes) :80

The details of tape you entered is :

The entered title is :tape real

The entered price is :600

The entered play time is :80

Do want to buy a book(Press 1) or a tape(Press 2) :1

Enter the details of the book :

Enter the title of the book :the man

Enter the price of the book :200

Enter the pages of the book :366

Caught exception in function of book

You entered an invalid data

The book you entered is :

The entered title is :0

The entered price is :0

The entered pages are :0

Caught exception in int main()