# include<iostream>  
# include<stdio.h>  
using namespace std;  
class publication                  
 {  
  private:  
  string title;  
  float price;  
  public:  
  void add()  
  {  
  cout << "\nEnter the Publication information : " << endl;  
  cout << "Enter Title of the Publication : ";  
cin.ignore();  
getline(cin, title);  
cout << "Enter Price of Publication : ";  
  cin >> price;  
  }  
  void display()  
  {  
  cout << "\n--------------------------------------------------";  
  cout << "\nTitle of Publication : " << title;  
  cout << "\nPublication Price : " << price;  
  }  
 };  
 class book : public publication    
 {  
  private:  
  int page\_count;  
  public:  
  void add\_book()  
  {  
  try  
  {  
  add();  
cout << "Enter Page Count of Book : ";  
  cin >> page\_count;  
  if (page\_count <= 0)  
  {  
  throw page\_count;  
  }  
  }  
  catch(...)  
  {  
  cout << "\nInvalid Page Count!!!";  
  page\_count = 0;  
  }  
  }  
  void display\_book()  
  {  
  display();  
cout << "\nPage Count : " <<  
page\_count;  
  cout << "\n--------------------------------------------------\n";  
  }  
 };  
 class tape : public publication      
 {  
  private:  
  float play\_time;  
  public:  
  void add\_tape()  
  {  
  try  
  {  
  add();  
cout << "Enter Play Duration of the Tape : ";  
  cin >> play\_time;  
  if (play\_time <= 0)  
  {  
  throw play\_time;  
  }  
  }  
  catch(...)  
  {  
  cout << "\nInvalid Play Time!!!";  
  play\_time = 0;  
  }  
  }  
  void display\_tape()  
  {  
  display();  
  cout << "\nPlay Time : " <<  
play\_time << " min";  
  cout << "\n--------------------------------------------------\n";  
  }  
  };  
 int main()  
 {  
 book b1[10];            
 tape t1[10];              
 int ch, b\_count = 0, t\_count = 0;  
 do  
 {  
 cout << "\n\* \* \* \* \* PUBLICATION DATABASE SYSTEM \* \* \* \* \*";  
 cout << "\n--------------------MENU-----------------------";  
 cout << "\n1. Add Information to Books";  
 cout << "\n2. Add Information to Tapes";  
 cout << "\n3. Display Books Information";  
 cout << "\n4. Display Tapes Information";  
 cout << "\n5. Exit";  
 cout << "\n\nEnter your choice : ";  
 cin >> ch;  
 switch(ch)  
 {  
 case 1:  
 b1[b\_count].add\_book();  
b\_count ++;  
break;  
 case 2:  
 t1[t\_count].add\_tape();  
 t\_count ++;  
 break;  
 case 3:  
 cout << "\n\* \* \* \* BOOK PUBLICATION DATABASE SYSTEM \* \* \* \*";  
 for (int j=0;j < b\_count;j++)  
 {  
 b1[j].display\_book();  
 }  
 break;  
 case 4:  
 cout << "\n\* \* \* \* TAPE PUBLICATION DATABASE SYSTEM \* \* \* \*";  
 for (int j=0;j < t\_count;j++)  
 {  
 t1[j].display\_tape();  
 }  
 break;  
 case 5:  
 exit(0);  
 }  
 }while (ch != 5);  
 return 0;  
 }