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Assignment4.cpp

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```
1 /*
2 Assignment 4
3 Imagine a publishing company that markets both book and audiocassette versions of its
4 works. Create a class publication that stores the title (a string) a price (type float) of a
5 publication. From this class derive two classes: book, which adds a page count (type int)
6 and tape, which adds a playing time in minutes (type float). Each of these three classes
7 should have a get data () function to get its data from the user at the keyboard, and a put
8 data () function to display its data.
9 Name-Dev Sarode
10 Division-12
11 Roll no-11260
12 Date-25/02/2025
13 */
14 #include<iostream>
15 #include<string>
16 using namespace std;
17
18 class Publication{
19 private:
20     string title;
21     float price;
22 public:
23     void getdata(){ //take input from the user
24         cout<<"Enter title: "<<endl;
25         cin>>title;
26         //cin.ignore(); //clear buffer
27         //getline(cin, title);
28         cout<<"Enter price: $"<<endl;
29         cin>>price;
30     }
31
32     void putdata(){ //display input taken from the user
33         cout<<"\nTitle : "<<title<<endl;
34         cout<<"\nPrice : $"<<price<<endl;
35     }
36 };
37
```

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```
38 class Book : public Publication{ //Derived class of Publication
39 private:
40     int pagecount;
41 public:
42     void getdata(){
43         Publication::getdata(); //scope resolution
44         cout<<"Enter number of pages: "<<endl;
45         cin>>pagecount;
46     }
47     void putdata(){
48         Publication::putdata();
49         cout << "\nPage count: " << pagecount << " pages" << endl;
50     }
51 };
52
53
54 class Tape : public Publication{ //Derived class of Publication
55 private:
56     float minutes;
57 public:
58     void getdata(){
59         Publication::getdata();
60         cout<<"Enter number of minutes : ";
61         cin>>minutes;
62     }
63     void putdata(){
64         Publication::putdata();
65         cout<<"\nDuration is : "<<minutes<<" minutes\n"<<endl;
66     }
67 };
68
69 int main(){ //main function
70     Book book;
71     Tape tape;
72     book.getdata();
73     tape.getdata();
74     cout<<"\nDetails are : \n";
```

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```
41 public:
42     void getdata(){
43         Publication::getdata(); //scope resolution
44         cout<<"Enter number of pages: "<<endl;
45         cin>>pagecount;
46     }
47
48     void putdata(){
49         Publication::putdata();
50         cout << "\nPage count: " << pagecount << " pages" << endl;
51     }
52 };
53
54 class Tape : public Publication{ //Derived class of Publication
55 private:
56     float minutes;
57 public:
58     void getdata(){
59         Publication::getdata();
60         cout<<"Enter number of minutes : ";
61         cin>>minutes;
62     }
63
64     void putdata(){
65         Publication::putdata();
66         cout<<"\nDuration is : "<<minutes<<" minutes\n"<<endl;
67     }
68 };
69 int main(){ //main function
70     Book book;
71     Tape tape;
72     book.getdata();
73     tape.getdata();
74     cout<<"\nDetails are : \n";
75     book.putdata();
76     tape.putdata();
77 }
```

C++Tab Width: 8Ln 56, Col 23INS


Price : \$0
Page count: 32765 pages
Title :
Price : \$0
Duration is : 0 minutes
fe@pict-OptiPlex-3020:~/11260\$./a.out

Enter title:

rich

Enter price: \$

15

Enter number of pages:

352

Enter title:

dad


Enter price: \$

6


Enter number of minutes : 95


Details are :

Title : rich


Price : \$15

Page count: 352 pages


Title : dad

Price : \$6


Duration is : 95 minutes

fe@pict-OptiPlex-3020:~/11260\$.