

### **Practical No - 03 (Group A)**

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#### **Problem Statement :**

Imagine a publishing company which does marketing of book & cassette. Create class publication that stores title (String) & price (float) of a publication from this class derive 2 classes; book, which adds a page count type (int) & tape which adds a playing (float) time in minutes. Write program that instantaneous book & tape classes, allows user to enter data & displays data members if an exception is caught replace all data members with a value.

#### **Program Code :**

```
#include<iostream>
```

```
using namespace std;
```

```
class publication {
```

```
public :
```

```
string title;
```

```
float price;
```

```
};
```

```
class book : public publication {
```

```
public :
```

```
int pagecount;
```

```
void getdata();  
void display();  
};
```

```
class tape : public publication {  
public :  
float time;
```

```
void getdata();  
void display();  
};
```

```
void book :: getdata() {  
cout<<"Enter the title of book : ";  
cin>>title;  
cout<<"Enter the price of book: ";  
cin>>price;  
cout<<"Enter no. of pages : ";  
cin>>pagecount;  
cout<<"\n";  
}
```

```
void tape :: getdata() {  
cout<<"Enter the title of cassette : ";  
cin>>title;  
cout<<"Enter the price of cassette : ";  
cin>>price;  
cout<<"Enter time in minutes : ";
```

```
cin>>time;
cout<<"\n";
}
```

```
void book :: display() {
if(pagecount <= 0 || title == " " || price == 0) {
title = " ";
price = 0;
pagecount = 0;
cout<<"The title of book is : "<<title<<endl;
cout<<"The price of book is : "<<price<<endl;
cout<<"No. of pages : "<<pagecount<<endl<<endl;
} else {
cout<<"The title of book is : "<<title<<endl;
cout<<"The price of book is : "<<price<<endl;
cout<<"No. of pages : "<<pagecount<<endl<<endl;
}
}
```

```
void tape :: display() {
if(time <= 0 || title == " " || price == 0) {
title = " ";
price = 0;
time = 0;
cout<<"The title of cassette is : "<<title<<endl;
cout<<"The price of cassette is : "<<price<<endl;
cout<<"Time in minutes : "<<time<<" min"<<endl<<endl;
} else {
```

```
cout<<"The title of cassette is : "<<title<<endl;
cout<<"The price of cassette is : "<<price<<endl;
cout<<"Time in minutes : "<<time<<" min"<<endl;
}
}
```

```
int main() {
book b;
tape t;
b.getdata();
t.getdata();
b.display();
t.display();
return 0;
}
```

**Output :**

Without exception :

```
d_comp_sli_15@d-comp-sli-15: ~/S211045_At...
d_comp_sli_15@d-comp-sli-15:~/S211045_Atharva$ g++ Class.cpp -o c
d_comp_sli_15@d-comp-sli-15:~/S211045_Atharva$ ./c
Enter the title of book : Job/Bussiness
Enter the price of book: 450
Enter no. of pages : 20

Enter the title of cassette : GVRM
Enter the price of cassette : 95
Enter time in minutes : 3.5

The title of book is : Job/Bussiness
The price of book is : 450
No. of pages : 20

The title of cassette is : GVRM
The price of cassette is : 95
Time in minutes : 3.5 min
d_comp_sli_15@d-comp-sli-15:~/S211045_Atharva$
```

With exception :

```
d_comp_sli_15@d-comp-sli-15: ~/S211045_Atharva
d_comp_sli_15@d-comp-sli-15:~/S211045_Atharva$ g++ Class.cpp -o c
d_comp_sli_15@d-comp-sli-15:~/S211045_Atharva$ ./c
Enter the title of book : Job/Bussiness
Enter the price of book: 450.5
Enter no. of pages : 0

Enter the title of cassette : GVRM
Enter the price of cassette : 0
Enter time in minutes : 3.5

The title of book is :
The price of book is : 0
No. of pages : 0

The title of cassette is :
The price of cassette is : 0
Time in minutes : 0 min
d_comp_sli_15@d-comp-sli-15:~/S211045_Atharva$
```

