



OOP (Object Oriented Programming) Lab

LAB REPORT # 3

Semester: 2nd Semester

Section: C

Submitted To:

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Submitted By:

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Task 1:

```
1  #include <iostream>
2
3  using namespace std;
4
5  struct BookRecord
6  {
7      int Sr;
8      float price;
9
10     void getdata()
11     {
12         cout << "Enter the Serial number of the book : ";
13         cin >> Sr;
14         cout << "Enter the price of the book : ";
15         cin >> price;
16     }
17
18     void DisplayPrice()
19     {
20         cout << "The price is : " << price << endl;
21     }
22
23     void DisplayData(int i)
24     {
25         cout << "The Book " << i + 1 << endl;
26         cout << "The serial number is : " << Sr << endl;
27         cout << "The price is : " << price << endl;
28     }
29 };
30
31 BookRecord br[3];
32 bool recordAvailable[3] = {false, false, false};
33 int bn, choice;
34
35 void Display()
36 {
37     cout << "\t\t\tMain Menu" << endl;
38     cout << "\nEnter 1 to enter a record";
39     cout << "\nEnter 2 to display the record";
40     cout << "\nEnter 3 to exit" << endl;
41 }
42
43 void GetRecord()
44 {
45     int bn;
46     getre:
47     cout << "Enter 1 to enter book 1 record" << endl;
48     cout << "Enter 2 to enter book 2 record" << endl;
49     cout << "Enter 3 to enter book 3 record" << endl;
50     cout << "Enter 4 to go back to Main Menu" << endl;
51     cout << "Enter 5 to exit" << endl;
52     cin >> bn;
53     if (!recordAvailable[bn])
54     {
55         switch (bn)
56         {
57             case 1:
58                 br[0].getdata();
59                 break;
60             case 2:
61                 br[1].getdata();
62                 break;
63             case 3:
64                 br[2].getdata();
65                 break;
66             case 4:
67                 return;
68             case 5:
69                 exit(0);
70                 break;
71             default:
72                 break;
73         }
74     }
75     else
76     {
77         cout << "Record already contains a Book" << endl;
78         goto getre;
79     }
80 }
```

```

81
82 void DisplayRecord()
83 {
84     ... int bn;
85     ... char choice;
86     ... char c;
87     ... do
88     ... {
89     ... get:
90     ... cout << "Enter a display the price of a particular book" << endl;
91     ... cout << "Enter b display the record of all books" << endl;
92     ... cin >> choice;
93
94     ... switch (choice)
95     ... {
96     ... case 'a':
97     ... cout << "Enter the book number : ";
98     ... cin >> bn;
99     ... cout << "The price is : " << br[bn - 1].price << endl;
100    ... break;
101    ... case 'b':
102    ... for (int i = 0; i < 3; i++)
103    ... {
104    ... br[i].DisplayData(i + 1);
105    ... }
106    ... break;
107    ... default:
108    ... cout << "wrong input : (" ;
109    ... goto get;
110    ... break;
111    ... }
112
113    ... cout << "Would you like to go to the Main Menu (Y/N):";
114    ... cin >> c;
115    ... } while (c == 'Y' || c == 'y');
116    }
117
118 int main()
119 {
120

```

```

120
121     ... do
122     ... {
123     ...     system("cls");
124     ...     Display();
125     ...     cin >> choice;
126
127     ...     switch (choice)
128     ...     {
129     ...     case 1:
130     ...     GetRecord();
131     ...     break;
132     ...     case 2:
133     ...     DisplayRecord();
134     ...     break;
135     ...     case 3:
136     ...     exit(0);
137     ...     break;
138     ...     default:
139     ...     cout << "Wrong input" << endl;
140     ...     break;
141     ...     }
142     ... } while (true);
143
144     return 0;
145 }

```

Output:

```
Enter 1 to enter a record
Enter 2 to dsisplay the record
Enter 3 to exit
2
Enter a display the price of a particular book
Enter b display the record of all books
q
wrong input :(Enter a display the price of a particular book
Enter b display the record of all books
a
Enter the book number : 2
The price is : 1242
Would you like to go to the Main Menu (Y/N):
```

Task 2:

```
task2.cpp > Draaz > getdata()
1  #include <iostream>
2  #include <string>
3
4  using namespace std;
5
6  struct Alibaba
7  {
8      ....string name;
9      ....int products;
10     ....float revenue;
11
12     ....void displayData()
13     ....{
14         ....cout << "Name: " << name << endl;
15         ....cout << "Number of products: " << products << endl;
16         ....cout << "Revenue: " << revenue << endl;
17     ....}
18
19     ....void getdata()
20     ....{
21         ....cout << "Enter Draaz name: ";
22         ....cin.ignore();
23         ....getline(cin, name);
24         ....cout << "Enter number of products: ";
25         ....cin >> products;
26         ....cout << "Enter revenue: ";
27         ....cin >> revenue;
28     ....}
29 };
30
31 struct AliExpress
32 {
33     ....string name;
34     ....int products;
35     ....float revenue;
36
37     ....void displayData()
38     ....{
39         ....cout << "Name: " << name << endl;
40         ....cout << "Number of products: " << products << endl;
41         ....cout << "Revenue: " << revenue << endl;
42     ....}
43
44     ....void getdata()
45     ....{
46         ....cout << "Enter Draaz name: ";
47         ....cin.ignore();
48         ....getline(cin, name);
49         ....cout << "Enter number of products: ";
50         ....cin >> products;
51         ....cout << "Enter revenue: ";
52         ....cin >> revenue;
53     ....}
54 };
55
56 struct Draaz
57 {
58     ....string name;
59     ....int products;
60     ....float revenue;
61
62     ....void displayData()
63     ....{
64         ....cout << "Name: " << name << endl;
65         ....cout << "Number of products: " << products << endl;
66         ....cout << "Revenue: " << revenue << endl;
67     ....}
68
69     ....void getdata()
70     ....{
71         ....cout << "Enter Draaz name: ";
72         ....cin.ignore();
73         ....getline(cin, name);
74         ....cout << "Enter number of products: ";
75         ....cin >> products;
76         ....cout << "Enter revenue: ";
77         ....cin >> revenue;
78     ....}
79 };
80
```

```

81 void displayMenu()
82 {
83     cout << "Press 1 for Draaz data" << endl;
84     cout << "Press 2 for Alibaba data" << endl;
85     cout << "Press 3 for AliExpress data" << endl;
86     cout << "Press 4 to exit" << endl;
87 }
88
89 int main()
90 {
91     // Declare variables for Alibaba, AliExpress, and Draaz
92     Alibaba alibaba;
93     AliExpress aliexpress;
94     Draaz draaz;
95
96     int choice;
97
98     do
99     {
100         displayMenu();
101         cin >> choice;
102
103         switch (choice)
104         {
105             case 1:
106                 draaz.getdata();
107                 draaz.displayData();
108                 break;
109             case 2:
110                 alibaba.getdata();
111                 alibaba.displayData();
112                 break;
113             case 3:
114                 aliexpress.getdata();
115                 aliexpress.displayData();
116                 break;
117             case 4:
118                 cout << "Exiting program..." << endl;
119                 break;
120             default:
121                 cout << "Invalid choice. Please enter a number between 1 and 4." << endl;
122                 break;
123         }
124     } while (choice != 4);
125
126     return 0;
127 }
128

```

Output:

```

Press 1 for Draaz data
Press 2 for Alibaba data
Press 3 for AliExpress data
Press 4 to exit
1
Enter Draaz name: fashion
Enter number of products: 34654
Enter revenue: 12345
Name: fashion
Number of products: 34654
Revenue: 12345
Press 1 for Draaz data
Press 2 for Alibaba data
Press 3 for AliExpress data
Press 4 to exit
2

```