Open | publications.cpp ~/C++Lab/asgn11 | Save

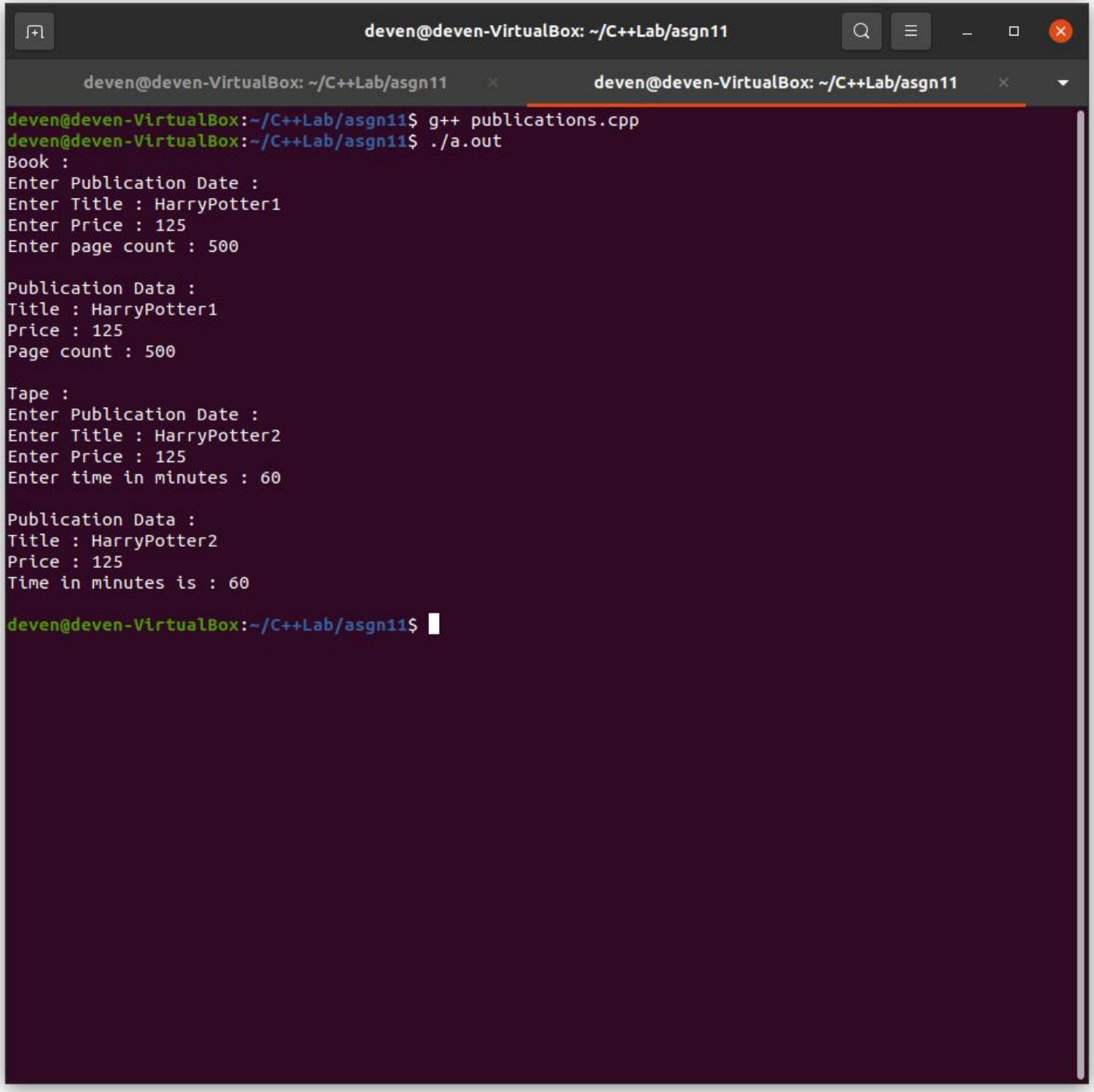
```cpp
#include <iostream>
using namespace std;

class Publication
{
    private:
        string title;
        float price;
    public:
        void getData();
        void displayData();
};

void Publication::getData()
{
    cout << "Enter Publication Date : " << endl;
    cout << "Enter Title : ";
    cin >> title;
    cout << "Enter Price : ";
    cin >> price;
}

void Publication::displayData()
{
    cout << endl << "Publication Data : " << endl;
    cout << "Title : " << title << endl;
    cout << "Price : " << price << endl;
}

class Book : public Publication
{
    private:
        int pageCount;
    public:
        void getData();
        void displayData();
};

void Book::getData()
{
    cout << "Book : " << endl;
    Publication::getData();
    cout << "Enter page count : ";
    cin >> pageCount;
}

void Book::displayData()
```

C++ | Tab Width: 4 | Ln 15, Col 2 | INS

Open | publications.cpp ~/C++Lab/asgn11 | Save

```
void Book::getData()
{
    cout << "Book : " << endl;
    Publication::getData();
    cout << "Enter page count : ";
    cin >> pageCount;
}

void Book::displayData()
{
    Publication::displayData();
    cout << "Page count : " << pageCount << endl << endl;
}

class Tape : public Publication
{
    private:
        int time;
    public:
        void getData();
        void displayData();
};

void Tape::getData()
{
    cout << "Tape : " << endl;
    Publication::getData();
    cout << "Enter time in minutes : ";
    cin >> time;
}

void Tape::displayData()
{
    Publication::displayData();
    cout << "Time in minutes is : " << time << endl << endl;
}

int main()
{
    Book b;
    b.getData();
    b.displayData();
    Tape t;
    t.getData();
    t.displayData();
    return 0;
}
```

Bracket match found on line: 77 | C++ | Tab Width: 4 | Ln 85, Col 2 | INS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deven@deven-VirtualBox: ~/C++Lab/asgn11
deven@deven-VirtualBox: ~/C++Lab/asgn11
deven@deven-VirtualBox:~/C++Lab/asgn11$ g++ publications.cpp
deven@deven-VirtualBox:~/C++Lab/asgn11$ ./a.out
Book :
Enter Publication Date :
Enter Title : HarryPotter1
Enter Price : 125
Enter page count : 500
Publication Data :
Title : HarryPotter1
Price : 125
Page count : 500
Tape :
Enter Publication Date :
Enter Title : HarryPotter2
Enter Price : 125
Enter time in minutes : 60
Publication Data :
Title : HarryPotter2
Price : 125
Time in minutes is : 60
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Open | shape.cpp ~/C++Lab/asgn11 | Save

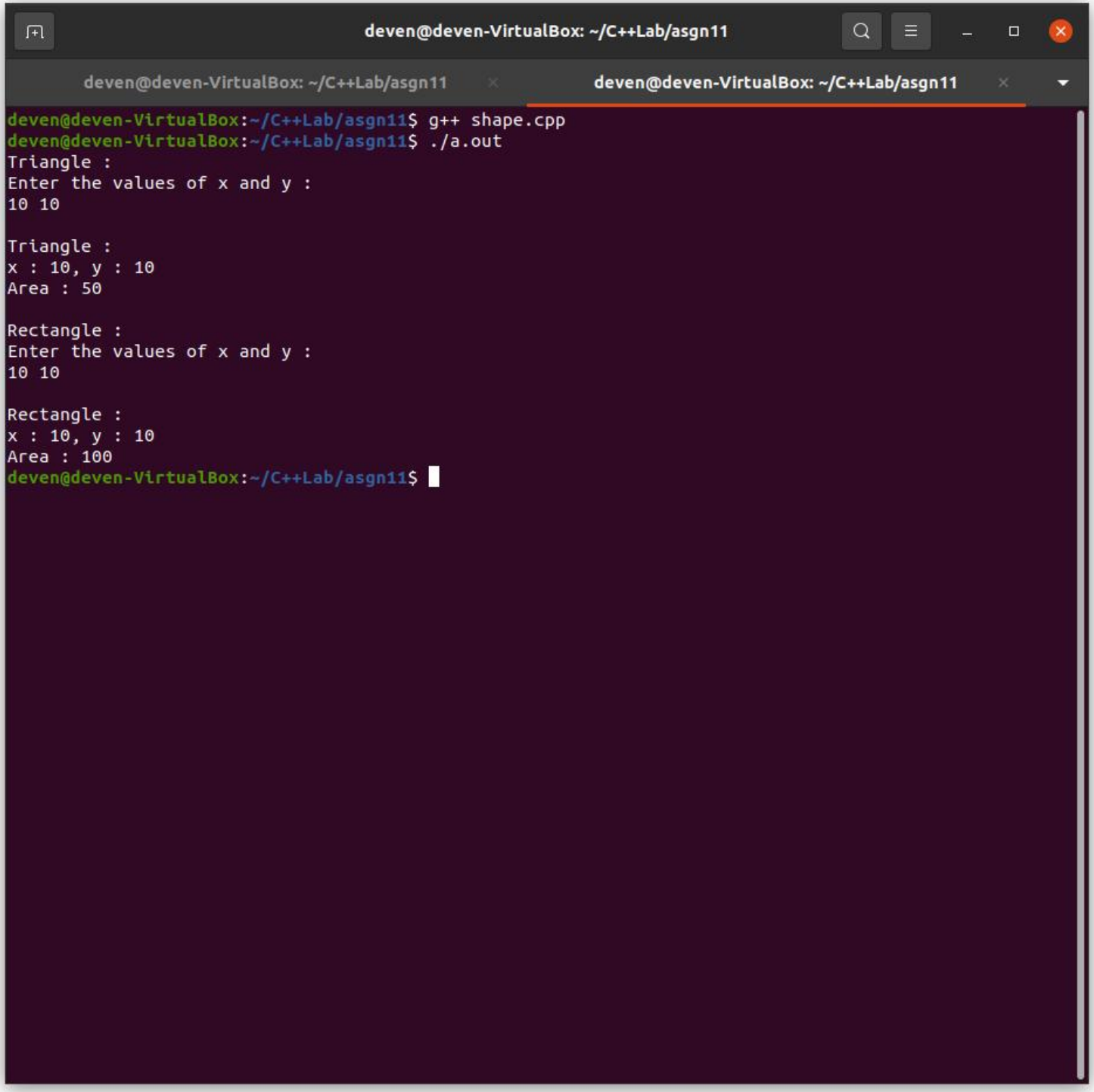
```cpp
#include <iostream>
using namespace std;

class Shape
{
    protected:
        double x, y;
    public:
        void getData();
        virtual void displayArea() = 0;
};

void Shape::getData()
{
    cout << "Enter the values of x and y : " << endl;
    cin >> x >> y;
    cout << endl;
}

class Triangle : public Shape
{
    public:
        void displayArea();
};

void Triangle::displayArea()
{
    cout << "Triangle : " << endl;
    cout << "x : " << x << ", y : " << y << endl;
    cout << "Area : " << x*y/2 << endl << endl;
}

class Rectangle : public Shape
{
    public:
        void displayArea();
};

void Rectangle::displayArea()
{
    cout << "Rectangle : " << endl;
    cout << "x : " << x << ", y : " << y << endl;
    cout << "Area : " << x*y << endl;
}

int main()
{
```

C++ | Tab Width: 4 | Ln 1, Col 1 | INS

Open | shape.cpp ~/C++Lab/asgn11 | Save

```
14 {
15     cout << "Enter the values of x and y : " << endl;
16     cin >> x >> y;
17     cout << endl;
18 }
19
20 class Triangle : public Shape
21 {
22     public:
23         void displayArea();
24 };
25
26 void Triangle::displayArea()
27 {
28     cout << "Triangle : " << endl;
29     cout << "x : " << x << ", y : " << y << endl;
30     cout << "Area : " << x*y/2 << endl << endl;
31 }
32
33 class Rectangle : public Shape
34 {
35     public:
36         void displayArea();
37 };
38
39 void Rectangle::displayArea()
40 {
41     cout << "Rectangle : " << endl;
42     cout << "x : " << x << ", y : " << y << endl;
43     cout << "Area : " << x*y << endl;
44 }
45
46 int main()
47 {
48     Shape *ptr;
49     cout << "Triangle : " << endl;
50     ptr = new Triangle();
51     ptr->getData();
52     ptr->displayArea();
53     delete ptr;
54     cout << "Rectangle : " << endl;
55     ptr = new Rectangle();
56     ptr->getData();
57     ptr->displayArea();
58     delete ptr;
59     return 0;
60 }
```

Bracket match found on line: 47 | C++ | Tab Width: 4 | Ln 60, Col 2 | INS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deven@deven-VirtualBox: ~/C++Lab/asgn11
deven@deven-VirtualBox:~/C++Lab/asgn11$ g++ shape.cpp
deven@deven-VirtualBox:~/C++Lab/asgn11$ ./a.out
Triangle :
Enter the values of x and y :
10 10
Triangle :
x : 10, y : 10
Area : 50
Rectangle :
Enter the values of x and y :
10 10
Rectangle :
x : 10, y : 10
Area : 100
deven@deven-VirtualBox:~/C++Lab/asgn11$

Open | ship.cpp ~/C++Lab/asgn11 | Save

```cpp
#include <iostream>
using namespace std;

class Ship
{
    protected:
        string name;
        int builtYear;
    public:
        Ship(string n = "", int by = 0) : name(n), builtYear(by) {}
        string getName() { return name; }
        int getBuiltYear() { return builtYear; }
        virtual void print();
};

void Ship::print()
{
    cout << "Ship's Name : " << name << endl;
    cout << "Built Year : " << builtYear << endl;
}

class CruiseShip : public Ship
{
    private:
        int maxNoPass;
    public:
        CruiseShip(string n = "", int by = 0, int m = 0) : Ship(n, by), maxNoPass(m) {}
        int getMaxNoPass() { return maxNoPass; }
        virtual void print();
};

void CruiseShip::print()
{
    cout << "Cruise Ship's Name : " << name << endl;
    cout << "Cruise Ship's Maximum Number of Passengers : " << maxNoPass << endl;
}

class CargoShip : public Ship
{
    private:
        int cargoCapacity;
    public:
        CargoShip(string n = "", int by = 0, int c = 0) : Ship(n, by), cargoCapacity(c) {}
        int getCargoCapacity() { return cargoCapacity; }
        virtual void print();
};

```

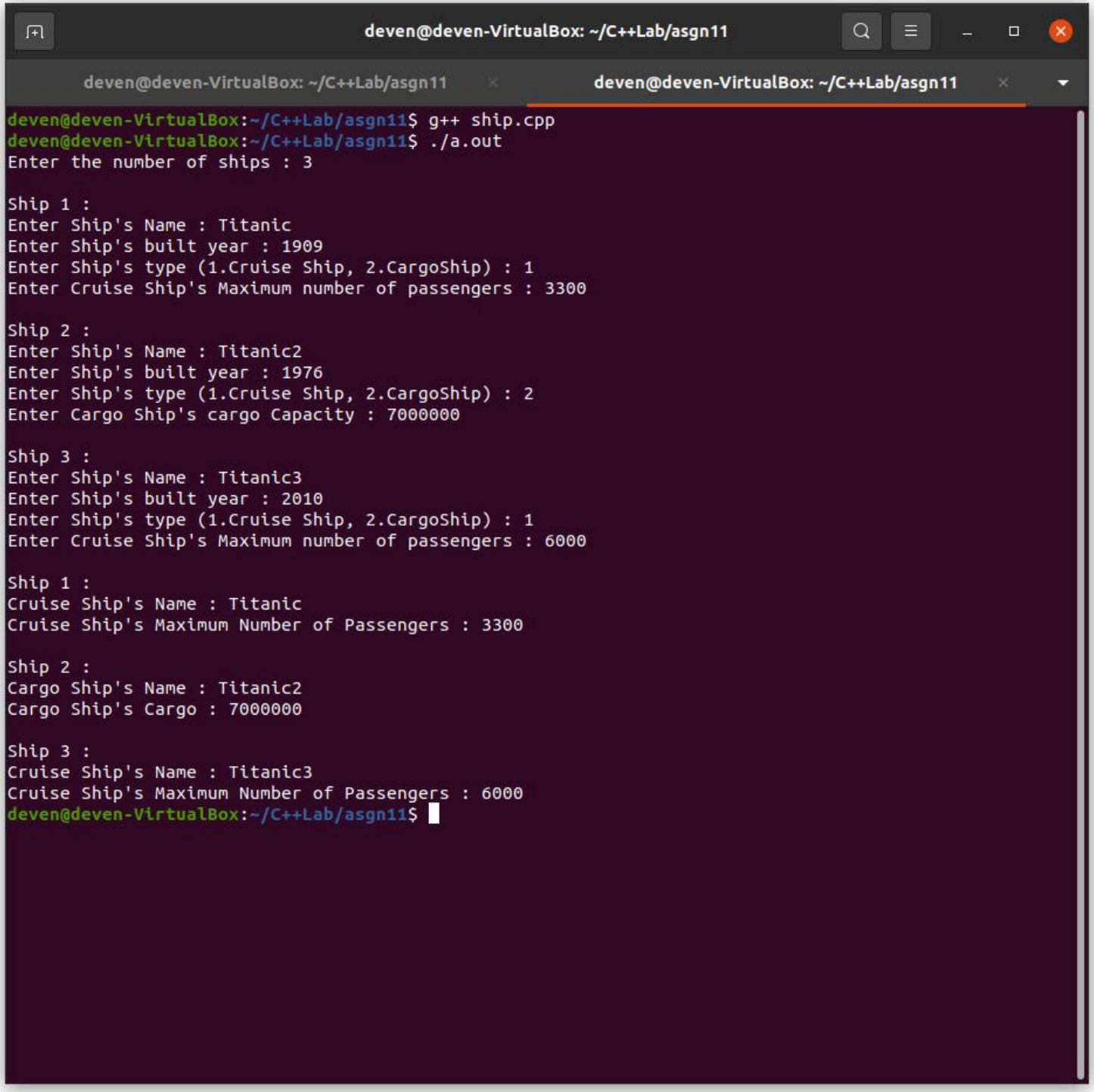
C++ | Tab Width: 4 | Ln 8, Col 23 | INS

Open | ship.cpp ~/C++Lab/asgn11 | Save

```cpp
void CargoShip::print()
{
    cout << "Cargo Ship's Name : " << name << endl;
    cout << "Cargo Ship's Cargo : " << cargoCapacity << endl;
}

int main()
{
    int n;
    cout << "Enter the number of ships : ";
    cin >> n;
    Ship *s[n];
    string name;
    int builtYear;
    for(int i = 0; i < n; ++i)
    {
        cout << endl << "Ship " << i+1 << " : " << endl;
        cout << "Enter Ship's Name : ";
        cin >> name;
        cout << "Enter Ship's built year : ";
        cin >> builtYear;
        int type;
        cout << "Enter Ship's type (1.Cruise Ship, 2.CargoShip) : ";
        cin >> type;
        if(type == 1)
        {
            int maxNoPass;
            cout << "Enter Cruise Ship's Maximum number of passengers : ";
            cin >> maxNoPass;
            s[i] = new CruiseShip(name, builtYear, maxNoPass);
        }
        else
        {
            int cargoCapacity;
            cout << "Enter Cargo Ship's cargo Capacity : ";
            cin >> cargoCapacity;
            s[i] = new CargoShip(name, builtYear, cargoCapacity);
        }
    }
    for(int i = 0; i < n; ++i)
    {
        cout << endl << "Ship " << i+1 << " : " << endl;
        s[i]->print();
        delete s[i];
    }
    return 0;
}
```

Bracket match found on line: 55 | C++ | Tab Width: 4 | Ln 94, Col 2 | INS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deven@deven-VirtualBox: ~/C++Lab/asgn11
deven@deven-VirtualBox: ~/C++Lab/asgn11
deven@deven-VirtualBox:~/C++Lab/asgn11$ g++ ship.cpp
deven@deven-VirtualBox:~/C++Lab/asgn11$ ./a.out
Enter the number of ships : 3
Ship 1 :
Enter Ship's Name : Titanic
Enter Ship's built year : 1909
Enter Ship's type (1.Cruise Ship, 2.CargoShip) : 1
Enter Cruise Ship's Maximum number of passengers : 3300
Ship 2 :
Enter Ship's Name : Titanic2
Enter Ship's built year : 1976
Enter Ship's type (1.Cruise Ship, 2.CargoShip) : 2
Enter Cargo Ship's cargo Capacity : 7000000
Ship 3 :
Enter Ship's Name : Titanic3
Enter Ship's built year : 2010
Enter Ship's type (1.Cruise Ship, 2.CargoShip) : 1
Enter Cruise Ship's Maximum number of passengers : 6000
Ship 1 :
Cruise Ship's Name : Titanic
Cruise Ship's Maximum Number of Passengers : 3300
Ship 2 :
Cargo Ship's Name : Titanic2
Cargo Ship's Cargo : 7000000
Ship 3 :
Cruise Ship's Name : Titanic3
Cruise Ship's Maximum Number of Passengers : 6000
deven@deven-VirtualBox:~/C++Lab/asgn11$