

**Supplement IV.I: Nested Classes**  
**For Introduction to C++ Programming**  
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Nested classes are very useful in Java, but are rarely used in C++. You can define nested classes like data field or a member function in C++. Here is an example:

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

class A
{
public:
    void p()
    {
        B b(3);
        cout << b.getI() << endl;
    }

private:
    class B
    {
    public:
        B(int newI)
        {
            i = newI;
        }

        int getI()
        {
            return i;
        }
    private:
        int i;
    };
};

int main()
{
    A a;
    a.p();

    return 0;
}
```

**<Output>**

3

**<End Output>**

Line 14 declares a nested class B inside the class A. B can be used just like a regular class. Since it is only used in A, it makes sense to define it inside A.