

```
    }  
}  
  
class IFExtend {  
    public static void main(String arg[]) {  
        MyClass ob = new MyClass();  
  
        ob.meth1();  
        ob.meth2();  
        ob.meth3();  
    }  
}
```

As an experiment, you might try removing the implementation for **meth1()** in **MyClass**. This will cause a compile-time error. As stated earlier, any class that implements an interface must implement all methods defined by that interface, including any that are inherited from other interfaces.

Although the examples we've included in this book do not make frequent use of packages or interfaces, both of these tools are an important part of the Java programming environment. Virtually all real programs and applets that you write in Java will be contained within packages. A number will probably implement interfaces as well. It is important, therefore, that you be comfortable with their usage.



Module 8 Mastery Check

1. Using the code from Project 8-1, put the **ICharQ** interface and its three implementations into a package called **QPack**. Keeping the queue demonstration class **IQDemo** in the default package, show how to import and use the classes in **QPack**.
2. What is a namespace? Why is it important that Java allows you to partition the namespace?
3. Packages are stored in _____.
4. Explain the difference between **protected** and default access.
5. Explain the two ways that the members of a package can be used by other packages.
6. "One interface, multiple methods" is a key tenet of Java. What feature best exemplifies it?
7. How many classes can implement an interface? How many interfaces can a class implement?
8. Can interfaces be extended?

9. Create an interface for the **Vehicle** class from Module 7. Call the interface **IVehicle**.
10. Variables declared in an interface are implicitly **static** and **final**. What good are they?
11. A package is, in essence, a container for classes. True or False?
12. What standard Java package is automatically imported into a program?