

Code Example

All lines with not accessible fields are commented.

```
package packageA;

public class Base {
    public String publicStr = "publicString";
    protected String protectedStr = "protectedString";
    String defaultStr = "defaultString";
    private String privateStr = "privateString";

    public void print() {
        System.out.println("packageA.Base has access to");
        System.out.println("    " + publicStr);
        System.out.println("    " + protectedStr);
        System.out.println("    " + defaultStr);
        System.out.println("    " + privateStr);

        Base b = new Base(); // -- other Base instance
        System.out.println("    b." + b.publicStr);
        System.out.println("    b." + b.protectedStr);
        System.out.println("    b." + b.defaultStr);
        System.out.println("    b." + b.privateStr);
    }
}

-----

package packageA;

public class SubA extends Base {
    public void print() {
        System.out.println("packageA.SubA has access to");
        System.out.println("    " + publicStr + " (inherited from Base)");
        System.out.println("    " + protectedStr + " (inherited from Base)");
        System.out.println("    " + defaultStr + " (inherited from Base)");
        // -- not accessible - private elements are even not inherited
        // System.out.println(privateStr);

        Base b = new Base(); // -- other Base instance
        System.out.println("    b." + b.publicStr);
        System.out.println("    b." + b.protectedStr);
        System.out.println("    b." + b.defaultStr);
        // -- not accessible
        // System.out.println(b.privateStr);
    }
}

-----
```

```
package packageA;

public class AnotherA {
    public void print() {
        System.out.println("packageA.AnotherA has access to");
        Base b = new Base();
        System.out.println("    b." + b.publicStr);
        System.out.println("    b." + b.protectedStr);
        System.out.println("    b." + b.defaultStr);
        // System.out.println(b.privateStr);
    }
}
```

```
package packageB;
import packageA.Base;

public class SubB extends Base {
    public void print() {
        System.out.println("packageB.SubB has access to");
        System.out.println("    " + publicStr + " (inherited from Base)");
        // -- protectedStr is inherited element -> accessible
        System.out.println("    " + protectedStr + " (inherited from Base)");
        // -- not accessible
        // System.out.println(defaultStr);
        // System.out.println(privateStr);

        Base b = new Base(); // -- other Base instance
        System.out.println("    b." + b.publicStr);
        // -- protected element, which belongs to other object -> not accessible
        // System.out.println(b.protectedStr);

        // -- not accessible
        // System.out.println(b.defaultStr);
        // System.out.println(b.privateStr);
    }
}
```

```
package packageB;
import packageA.Base;

public class AnotherB {
    public void print() {
        System.out.println("packageB.AnotherB has access to");
        Base b = new Base();
        System.out.println("    b." + b.publicStr);
        // -- not accessible
        // System.out.println(b.protectedStr);
        // System.out.println(b.defaultStr);
        // System.out.println(b.privateStr);
    }
}
```

```
}  
}
```

```
import packageA.*;  
import packageB.*;  
  
// -- testing class  
public class TestProtection {  
    public static void main(String[] args) {  
        // -- all classes are public, so class TestProtection  
        // -- has access to all of them  
        new Base().print();  
        new SubA().print();  
        new AnotherA().print();  
        new SubB().print();  
        new AnotherB().print();  
    }  
}
```