

## PACKAGE ACCESS CONTROLS

```
package p1;
public class Protection {
    int n = 1;
    private int n_pri = 2;
    protected int n_pro = 3;
    public int n_pub = 4;
    public Protection() {
        System.out.println("base constructor");
        System.out.println("n = " + n);
        System.out.println("n_pri = " + n_pri);
        System.out.println("n_pro = " + n_pro);
        System.out.println("n_pub = " + n_pub);
    }
}
```

```
package p1;
class Derived extends Protection {
    Derived() {
        System.out.println("derived constructor");
        System.out.println("n = " + n);
        // class only
        // System.out.println("n_pri = " + n_pri);
        System.out.println("n_pro = " + n_pro);
        System.out.println("n_pub = " + n_pub);
    }
}
```

```
package p1;
class SamePackage {
    SamePackage() {
        Protection p = new Protection();
        System.out.println("same package constructor");
        System.out.println("n = " + p.n);
        // class only
        // System.out.println("n_pri = " + p.n_pri);
        System.out.println("n_pro = " + p.n_pro);
        System.out.println("n_pub = " + p.n_pub);
    }
}
```

```
}
```

```
package p1;
```

```
// Instantiate the various classes in p1.
```

```
public class Demo {
```

```
    public static void main(String args[]) {
```

```
        Protection ob1 = new Protection();
```

```
        Derived ob2 = new Derived();
```

```
        SamePackage ob3 = new SamePackage();
```

```
    }
```

```
}
```

```
package p2;
```

```
class Protection2 extends p1.Protection {
```

```
    Protection2() {
```

```
        System.out.println("derived other package constructor");
```

```
        // class or package only
```

```
        // System.out.println("n = " + n);
```

```
        // class only
```

```
        // System.out.println("n_pri = " + n_pri);
```

```
        System.out.println("n_pro = " + n_pro);
```

```
        System.out.println("n_pub = " + n_pub);
```

```
    }
```

```
}
```

```
package p2;
```

```
class OtherPackage {
```

```
    OtherPackage() {
```

```
        p1.Protection p = new p1.Protection();
```

```
        System.out.println("other package constructor");
```

```
        // class or package only
```

```
        // System.out.println("n = " + p.n);
```

```
        // class only
```

```
        // System.out.println("n_pri = " + p.n_pri);
```

```
        // class, subclass or package only
```

```
        // System.out.println("n_pro = " + p.n_pro);
```

```
        System.out.println("n_pub = " + p.n_pub);
```

```
    }
```

```
}
```

```
package p2;  
// Instantiate the various classes in p2.  
public class Demo {  
    public static void main(String args[]) {  
        Protection2 ob1 = new Protection2();  
        OtherPackage ob2 = new OtherPackage();  
    }  
}
```