Access Modifiers with Packages Example

Protection.java

```
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 Class Constructor");

System.out.println("default="+n);

System.out.println("private="+n_pri);

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

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

}

}
```

Derived.java

```
package p1;

class Derived extends Protection {

Derived() {

System.out.println("derived constructor");

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

// class only

// System.out.println("n_pri = "4 + n_pri);

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

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

```
}
}
```

SamePackage.java

```
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);
}
}
```

Protection2.java

```
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);
}
}
```

OtherPackage.java

```
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);

}

}
```

Demo.java

```
package p1;

import p1.SamePackage;


// 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();

}

}
```

Compiling Java files

```
C:\Users\nhrao\Desktop>javac -d . Protection.java

C:\Users\nhrao\Desktop>javac -d . Derived.java

C:\Users\nhrao\Desktop>javac -d . SamePackage.java

C:\Users\nhrao\Desktop>javac -d . Protection2.java

C:\Users\nhrao\Desktop>javac -d . OtherPackage.java

C:\Users\nhrao\Desktop>javac -d . Demo.java
```

Run Demo file by using the following command

C:\Users\nhrao\Desktop>java p1.Demo

Output:

Base Class Constructor

default=1

private=2

protected=3

public=4

Base Class Constructor

default=1

private=2

protected=3

public=4

```
derived constructor
n = 1
n_pro = 3
n_pub = 4
Base Class Constructor
default=1
private=2
protected=3
public=4
same package constructor
n = 1
n_pro = 3
n_pub = 4

C:\Users\nhrao\Desktop>
```