

//////////////////////////////////----- **Program 0**-----//////////////////////////////////
// **Creating Package**(Collection of classes)

```
//create a package TEMP
package TEMP;
class Day4P0
{
    public static void main(String args[])
    {
        Day4P0 obj = new Day4P0();
        System.out.println(" ----- Package created successfully-----");
    }
}
```

//Compile this program using **javac -d . Day4P0.java** command
//This will create a package named as **TEMP**
// Run this program using **java TEMP.Day4P0**
// will prompt as ----- **Package created successfully**-----

//////////////////////////////////----- **Access modifiers**-----//////////////////////////////////

Access Modifier	Within class	Within package	Outside package by subclass only	Outside package
Private	Yes	No	No	No
Default	Yes	Yes	No	No
Protected	Yes	Yes	Yes	No
Public	Yes	Yes	Yes	Yes

//////////////////////////////////----- **Program 1**-----//////////////////////////////////
//**Access modifiers within the class**

```
class Day4P1
{
    int A=5;
    private int B=10;
    public int C=20;
    protected int D=30;

    public static void main(String args[])
    {
        Day4P1 obj = new Day4P1();
        System.out.println("Default A = "+obj.A);
        System.out.println("Private B = "+obj.B);
        System.out.println("Public C = "+obj.C);
        System.out.println("Protected D = "+obj.D);
    }
}
```

////////////////////////////////////----- Program 2-----////////////////////////////////////

//Access modifiers within the package

```
class A
{
int A=5;
private int B=10;
public int C=20;
protected int D=30;
}
class Day4P2 extends A
{
    public static void main(String args[])
    {
        Day4P1 obj = new Day4P1();
        System.out.println("Default A = "+obj.A);
        //System.out.println("Private B = "+obj.B);           // Cannot access Private outside the class, If we try it produce error
        System.out.println("Public C = "+obj.C);
        System.out.println("Protected D = "+obj.D);
    }
}
```

////////////////////////////////////----- Program 3-----////////////////////////////////////

//Access modifiers outside the package

////////// Part 1 //////////

```
package Temp;           //Creating package Temp
public class Day4P3A //Compile this program using "javac -d . Day4P3A.java" command
{
int A=5;
private int B=10;
public int C=20;
protected int D=30;
}
```

//Compile this program using "javac -d . Day4P3A.java" command

////////// Part 2 //////////

//Access modifiers outside the package

```
import Temp.Day4P3A;           //Importing package created by Day4P3A.java program
class Day4P3 extends Day4P3A
{
    public static void main(String args[])
    {
        Day4P3 obj = new Day4P3();
        //System.out.println("Default A = "+obj.A); // Cannot access Default outside the package, If we try it produce error
        //System.out.println("Private B = "+obj.B); // Cannot access Private outside the class, If we try it produce error
        System.out.println("Public C = "+obj.C);
        System.out.println("Protected D = "+obj.D);
    }
}
//Compile this program using javac Day4P3.java command
//Run this program using java Day4P3 command
```

```

////////////////////////////////////----- Program 4-----////////////////////////////////////
//Access modifiers outside the package without inheritance
import Temp.Day4P3A;           //Importing package created by Day4P3A.java program
class Day4P4
{
    public static void main(String args[])
    {
        Day4P3      obj = new Day4P3();

//System.out.println("Default A = "+obj.A);      // Cannot access Default outside the package, If we try it produce error

//System.out.println("Private B = "+obj.B);      // Cannot access Private outside the class, If we try it produce error

        System.out.println("Public C = "+obj.C);

        //System.out.println("Protected D = "+obj.D); // Cannot access protected outside the package without inheritance, If we
        try it produce error

    }
}

```

```

C:\Windows\system32\cmd.exe

C:\Users\Jay\Desktop\JAVA\Day4>javac -d . Day4P0.java
C:\Users\Jay\Desktop\JAVA\Day4>java TEMP.Day4P0
----- Package created successfully-----
C:\Users\Jay\Desktop\JAVA\Day4>javac Day4P1.java
C:\Users\Jay\Desktop\JAVA\Day4>java Day4P1
Default A = 5
Private B = 10
Public C = 20
Protected D = 30
C:\Users\Jay\Desktop\JAVA\Day4>javac Day4P2.java
C:\Users\Jay\Desktop\JAVA\Day4>java Day4P2
Default A = 5
Public C = 20
Protected D = 30
C:\Users\Jay\Desktop\JAVA\Day4>javac -d . Day4P3A.java
C:\Users\Jay\Desktop\JAVA\Day4>javac Day4P3.java
C:\Users\Jay\Desktop\JAVA\Day4>java Day4P3
Public C = 20
Protected D = 30
C:\Users\Jay\Desktop\JAVA\Day4>javac -d . Day4P3A.java
C:\Users\Jay\Desktop\JAVA\Day4>javac Day4P4.java
C:\Users\Jay\Desktop\JAVA\Day4>java Day4P4
Public C = 20
C:\Users\Jay\Desktop\JAVA\Day4>

```