

# Access Controls in Java

- Access Modifiers:
  - How a member(instance variable/method) can be accessed
    - Public
    - Private
    - Protected (Applies only when Inheritance is involved)
    - Default

```
public int i;  
private double j;  
  
private int myMethod(int a, char b) { //...
```

# Access Modifiers

**Private:** The access level of a private modifier is only within the class. It cannot be accessed from outside the class.

**Default:** The access level of a default modifier is only within the package. It cannot be accessed from outside the package. If you do not specify any access level, it will be the default.

**Protected:** The access level of a protected modifier is within the package and outside the package through child class. If you do not make the child class, it cannot be accessed from outside the package.

**Public:** The access level of a public modifier is everywhere. It can be accessed from within the class, outside the class, within the package and outside the package.

Access Modifier	within class	within package	outside package by subclass only	outside package
Private	Y	N	N	N
Default	Y	Y	N	N
Protected	Y	Y	Y	N
Public	Y	Y	Y	Y