Access Specifiers

Friday, August 28, 2020 10:48 PM

Access to variables and methods is done through access modifiers in Java. Access modifiers specify the levels of access between class members and outside world (i.e., objects of other classes). Java provides support for four types access modifiers:

- private.
- public.
- protected.
- default (when no modifier is specified).

Private: If a variable or method is defined as private, no class outside of the current class(including subclass) has access to it. It is the most restrictive access modifier.

public: It has global visibility. It is assumed as most generous access modifier as it provides global accessibility to the variables and methods irrespective of class.

Protected: It works sometimes as public and sometimes as private. i.e., in all the subclasses, the methods and variables of a class work as public and in all the non-subclasses, they work as private.

default: If we do not specify any modifier, Java considers the method or variable as default. All the variables and method that are defined as default are public if the class that wants to have an access to these variables & methods is existed in the same package where the original class is existed. i.e., if a variable or method is not specified any access modifier, then only classes (including subclasses) in the same package can have access.

	private	no modifier	protected	public
same class	Yes	Yes	Yes	Yes
same package subclass	No	Yes	Yes	Yes
same package non- subclass	No	Yes	Yes	Yes
different pack-age subclass	No	No	Yes	Yes
different pack-age non subclass	No	No	No	Yes