Pg1

Thursday, June 25, 2020 1:07 PM

Modifiers :

1. all modifiers in java is a keyword.
2. In java, we can classify modifiers into 2

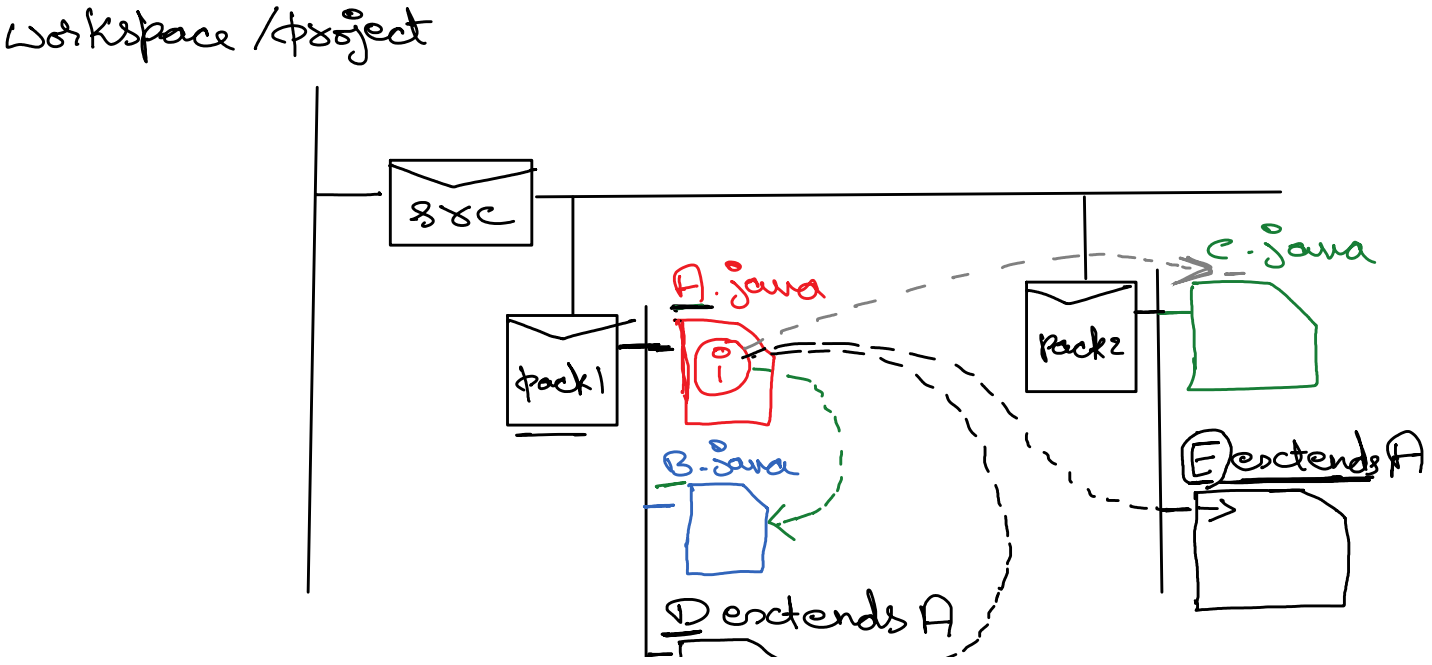
    a. access modifiers / access specifiers
    b. non-access modifiers

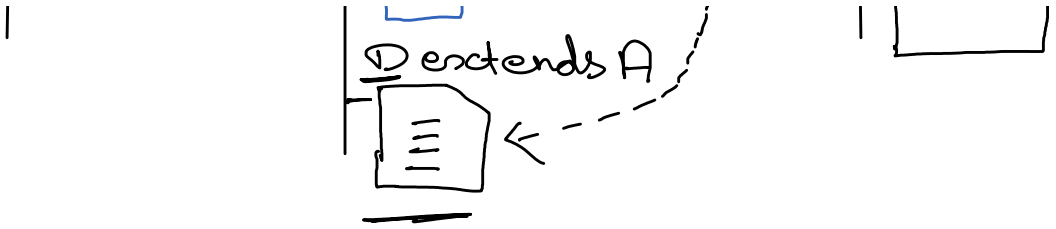
a. Access Modifiers / Access Specifiers :

it is a keyword, which changes the visibility (scope) of the member of java.

Different levels of Access Modifiers in java :

1. private
2. default
3. protected
4. public




D extends A

Pg2

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Usage of a member?	private	default / package scope	protected	public
1. within the same class ?	YES	YES	YES	YES
2. different class same package ?	NO	YES	YES	YES
3. different class outside a package ?	NO	NO	NO	YES
4. with the help of subclass present in the same package ?	NO	YES	YES	YES
5. with the help of subclass present outside the package	NO	NO	YES	YES

	Private	default	protected	public
class	NO	YES	NO	YES
interface	NO	YES	NO	YES
Global variables	YES	YES	YES	YES
methods	YES	YES	YES	YES
constructors	YES	YES	YES	YES
initializers	Not Allowed	not Allowed	Not Allowed	Not Allowed

private :

it is a keyword, an access modifier.
any member of a class prefixed with private can be used only within the same class, we cannot use a private member directly anywhere else.

For example, Refer: **app20/private/src**

default:

In a java class, if a member of a class, is not prefixed with any of the access modifier then it is considered to be a default access modifier. It is also known as package scope, because the member with default access can be used anywhere within the same package but it cannot be used anywhere outside the package.

For example, Refer: **app20/default/src**

protected:

It is a keyword, which represents an access modifier.
Any member prefixed with protected access can be used anywhere within the package, **it can also be used outside a package only with the help of subclass present outside a package**.

for example, Refer: **app20/protected/src**

public :

It is a keyword, which represents an access modifier.
Any member prefixed with public can be used anywhere within or outside a package.

Access Modifiers in increasing order of their Visibility :

private < default < protected < public

Assignment 1

Friday, June 26, 2020 1:50 PM

1. What is the difference between private and default? explain with example
2. How protected is different from default and public? explain with example programs.
3. Can we restrict the object creation of a class outside a package ? justify with an example program.
4. Can we restrict the object creation of a class such that, the object must not be created anywhere except within the class ? justify with an example
5. How do we use a protected member in a class present outside a package? explain with an example.