Dt : 12/9/2022

***imp**

Access Modifiers in Java:

=>Access Modifiers will specify the scope of programming components within the JavaProject.

=>The following are some important Access modifiers in Java:

1.public

2.private

3.protected

4.default

1.public:

=>'public' programming components are accessed within the JavaProject.

2.private:

=>'private' programming components are accessed only inside the class.

3.protected:

=>'protected' programming components are accessed inside the package.

=>These 'protected' programming components can also be

accessed by the ChildClass declared outside the package.

4.default:

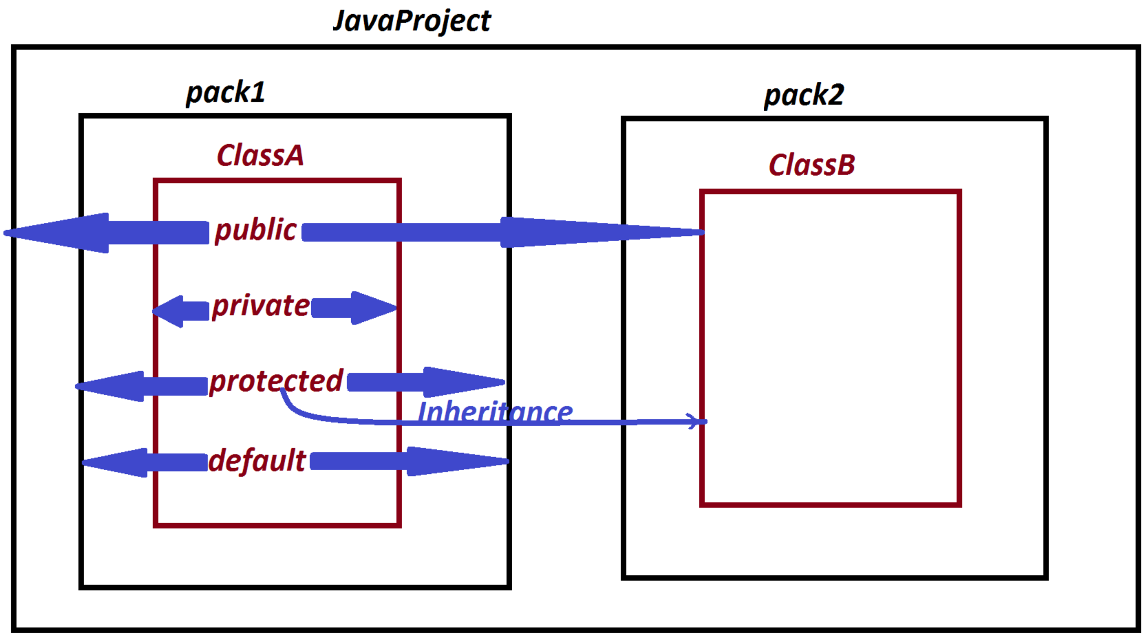
=>The programming components which are declared without any access modifier are considered as 'default'.

=>These 'default' programming components are accessed only inside the package.

Note:

=>Using of 'default' keyword in classes is not allowed. (CompilationError)

Diagram:



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faq:

define 'import' statement?

=>'import' statement will specify the availability of

class or interface from one package to another package.

=>Importing process in Java canbe done in three ways:

(a)Using 'import package_name.Class_name/Interface_name;'

(b)Using 'import package_name.;'*

(c)Using 'Fully Qualified names'

(a)Using 'import package_name.Class_name/Interface_name;'

=>In this importing process the required class or interface

from the package is available to current running program.

=>This importing process is also known as 'Explicit

importing process'.

Ex:

import java.util.Scanner;

import p1.EmployeeSalary;

(b)Using 'import package_name.;'*

=>In this importing process all the classes and Interfaces

from the package are available to current running program.

=>This importing process is also known as 'Implicit

importing process'.

Ex:

```
import java.util.*;

import p1.*;
```

(c)Using 'Fully Qualified names'

=>The process of declaring 'Classes and Interfaces' with package name part of programming code is known as 'Fully Qualified names'.

Ex:

```
java.util.Scanner s = new java.util.Scanner(System.in);

p1.EmployeeSalary es = new p1.EmployeeSalary();
```

===

faq:

define 'static' import?

=>The process of declaring 'import' statement with 'static' keyword is known as 'static import' and which is introduced by Java5(2004) version.

syntax:

```
import static package_name.Class_name/Interface_name.*;
```

Advantage of static import:

=>static import will make all the static members of class available directly to current running program and can be accessed without class_name directly.

Ex:

Calculate.java

```
package p1;
import static java.lang.Math.*;
public class Calculate {
    public static double cal(double x) {
     return sqrt(x);
    }
}
```

SMainClass.java

```
package p2;
import java.util.Scanner;
import static p1.Calculate.*;
public class SMainClass {
     public static void main(String[] args) {
  Scanner s = new Scanner(System.in);
  System.out.println("Enter the value:");
  double x = s.nextDouble();
  double r = cal(x);//Static method call
  System.out.println("Sqrt of "+x+" is "+r);
  s.close();
     }
}
```

o/p:

```
Enter the value:

144

Sqrt of 144.0 is 12.0
```

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