Contents

Classes & Objects

Java Class

```
class classname                          // class definition
{
   type variablename;                    // fields declaration
   default constructor                   // constructor declaration
   type methodname (parameter - list)    // methods declaration.
   {
         method – body;
   }
}
```

Example :

```
class Book
{
    String bookName;
    String authorName;
    int noPages;
    float price;
    String displayname( )
   {
         System.out.println("Name of the book is " + bookName);
   }
}
```

Access Modifiers

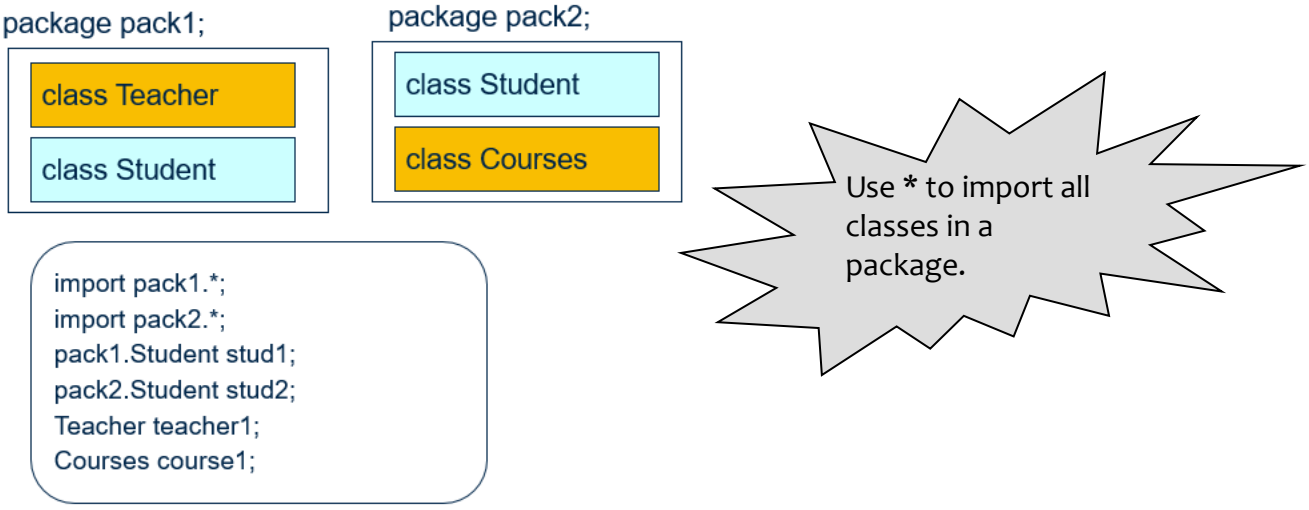
Location/Access Modifier	Private	Default	Protected	Public
Same class	Yes	Yes	Yes	Yes
Same package subclass	No	Yes	Yes	Yes
Same package non-subclass	No	Yes	Yes	Yes
Different package subclass	No	No	Yes	Yes
Different package non-subclass	No	No	No	Yes

this – points to the current class instance.

```
class Account{
int a;
int b;
public void setData(int a , int b){
        a=a;
        b=b;
public static void main(string args[]){
Account object1 = new Account();
object1.setData(2,3);
```

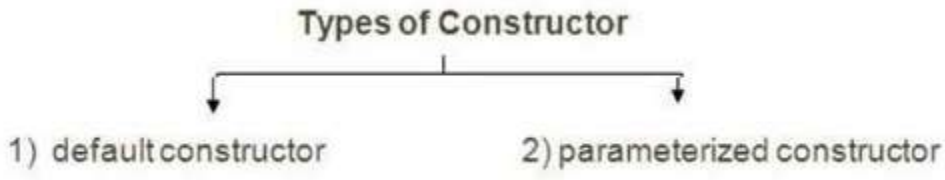
```
public void setData(int a , int b){
    this. a=a;
    this. b=b;
}
public static void main(string args[]){
Account object1 = new Account();
object1.setData(2,3);
```

Packages – avoids namespace collision



Package Name	Classes Avaialbe
java.lang	Object class, String class, System class, wrapper classes.
java.util	Utility classes, such as Date & collections (hashmap, treeset, arraylist, hashtable, treemap, etc.)
java.io	Input & output classes for writing & reading from streams & files

Constructors



Rule : If there is no constructor in a class, compiler automatically creates a default constructor

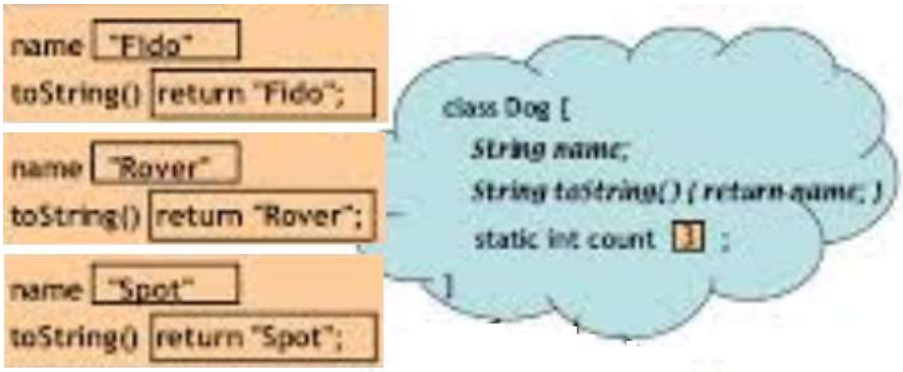
```
class Student{
        String course;
        String address;
        int semester;

        //Default Constructor - NO ARGUMENT
        public Student(){
                //Creates space in memory for the object and initializes its fields to defualt.
        }

        //Parameterized Constructor - ALL ARGUMENTS
        public Student(String s1, String s2, int i1){
                this.course=s1;
                this.course=s2;
                this.semester=i1;
        }

        //Parameterized Constructor - FEW ARGUMENTS
        public Student(String s1){
                this.course=s1;
        }
}
```

static



Things which can be marked as static	Methods, variables, nested classes
Things which can NOT be marked as static	Constructors, classes, interface, local variables