

18 Nested class

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* It is possible to define a class within another class, such classes are called nested class

* The scope of a nested class is bounded by the scope of its enclosing class

* A nested class has access to the members, including private members.

* There are two types of nested class static and non-static.

PROG

```
class Student {  
    int no;  
    String name;  
    dob dob;  
}
```

```
class dbob {  
    int dd, mm, yy;  
}
```

Inner class

* Inner class / is a non-static nested class.

* It has ~~off~~ ~~of~~ ~~the~~ access to all of the variables and methods of its outer class.

* An inner class is fully within the scope of its enclosing class.

* Inner class is a static class.

PROG:

```
class Student {  
    int no;  
    String name;
```

```
    class dob {  
        int dd, mm, yy;  
    } DOB;  
}
```


Student s1 = new Student();

s1.DOB.dd = 20;

s1.DOB.mm = 11;

s1.DOB.yy = 25;

28) Advantages of packages

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* Similar classes are grouped based on their concept.

* The accessing of classes becomes easy by importing the complete package at a time.

* Same name of class can be created in multiple package.

* To create a package is quite easy. Simple include a package command as the first statement in a Java source file.

* More than one file can include the same package statement.

30)

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- 1) BufferedInputStream
- 2) BufferedOutputStream
- 3) ByteArrayInputStream
- 4) ByteArrayOutputStream
- 5) DataInputStream
- 6) DataOutputStream
- 7) FileInputStream

- 8) FileOutputStream
- 9) FilterInputStream
- 10) FilterOutputStream