

## 1) Nested Class

1) To define a class within another class we use nested class

2) Two types  
Static Non-static

3) Static keyword is used

4) It cannot refer to members of its enclosing class directly

5) Sample program

```
public class OuterDemo
{
    static int x=10;
    public class StaticNested
    {
        public void display()
        {
            s.o.pln("value of x: "+x);
        }
    }
}
```

## Inner Class

1) An inner class is a non-static nested class

2) It has access to all of variables & methods of its outer class

3) No static keyword is used

4) An Inner class is fully within the scope of its enclosing class

Sample program

```
public class Outer
{
    private int x=10;
    class Inner
    {
        void display()
        {
            s.o.pln("value of x: "+x);
        }
    }
}
```

(reference:  
book: Oracle-JAVA  
pg-315)



## 2) Advantages of Packages:

- 1) Packages are a good mechanism for compartmentalizing diverse classes from each other.
- 2) It is easy to see why all the built-in Java classes are stored in packages.
- 3) Packages are used for encapsulating & containing the name space & scope of variables & methods.
- 4) Packages act as containers for classes & other subordinate packages.
- 5) All real programs that you write in Java will be contained within packages.
- 6) Packages are one of the most important parts of the Java programming environment.
- 7) Package is a mechanism which provides a mechanism for partitioning the class name space into more manageable chunks.

(reference;

Pg: 206, 207

book: Oracle - JAVAA)



1) Write the difference between "Nested" classes & inner classes with minimum 5 differences.

2) List the advantages of packages &

3) List any 10 classes or interfaces of java.io package.

3) Input / Output Classes & Interfaces.

\* Five I/O classes:

→ Buffered Input Stream

→ Buffered Reader

→ Console

→ Random Access File

→ String Reader

\* Five I/O Interfaces:

→ Data Input

→ Flushable

→ Object Input Filter

→ Object Input Validation

→ Object Stream Constants

(Reference:

ORACLE - Java SE 8  
The Complete Reference

pg - 680)