

# **CLASS CREATION**

D:\Java Programs

A.class  
B.class  
Demo3.class


```
class A{  
    }  
class B extends A{  
    }  
  
class Demo3{  
    public static void main(String aa[]){  
    }  
}
```


Demo3.java


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```
class A{  
    }  
class B extends A{  
    }  
  
class Demo4{  
    public static void main(String aa[]){  
        }  
}
```





Demo4.java

 A.class




 B.class

 Demo4.class

## D:\Java Programs

 A.class  
 B.class  
 Demo3.class  
 Demo4.class

```
class A{  
  
}  
class Demo1{  
    public static void main(String ss[]){  
  
        new A() { };  
  
    }  
}
```

-  A.class
-  Demo1\$1.class
-  Demo1.class

```
class A{
```

**A.java**

```
}
```

```
class B extends A{
```

**javac A.java  
java Demo4**

```
}
```

```
class Demo4{
```

```
    public static void main(String aa[]){
```

```
    }
```

```
}
```

```
class A{  
  
}  
class B extends A{  
  
}  
  
public class Demo3{  
    public static void main(String aa[]){  
  
    }  
}
```



**Demo3.java**

**A.java**



```
D:\Java Programs>javac A.java
```

```
A.java:10: error: class Demo3 is public,  
should be declared in a file named Demo3.java
```

```
    public class Demo3{  
           ^
```

```
1 error
```

```
D:\Java Programs>
```



```
class A{  
  
}  
public class B extends A{  
  
}  
  
public class Demo3{  
    public static void main(String aa[]){  
  
    }  
}
```

```
D:\Java Programs>javac A.java
```

```
A.java:6: error: class B is public,  
should be declared in a file named B.java
```

```
    public class B extends A{  
           ^
```

```
A.java:10: error: class Demo3 is public,  
should be declared in a file named Demo3.java
```

```
    public class Demo3{  
           ^
```

```
2 errors
```

## D:\Java Programs

A.java

```
public class A{  
}
```

B.java

```
public class B extends A{  
}
```

Demo3.java

```
public class Demo3{  
    public static void main(String aa[]){  
  
        new A();  
  
        new B();  
  
    }  
}
```

D:\Java Programs>

A.java

B.java

Demo3.java

D:\Java Programs>

A.java

B.java

Demo3.java

A.java

# PACKAGES

**A.java**

```
package test1;  
public class A{  
  
}
```

**B.java**

```
package test1;  
public class B extends A{  
  
}
```

**D:\Java Programs**

D:\Java Programs\test1>

A.java

B.java

C.java




D:\Java Programs\test2>






A.java

B.java

C.java



 **Statement** (java.beans)  
 Statement (java.sql)  
 **Statement** (jdk.nashorn.internal.ir)

 Connection (java.sql)  
 Connection (com.sun.corba.se.pept.transport)  
 Connection (com.sun.corba.se.spi.legacy.c...  
 **Connection** (com.sun.jndi.ldap)  
 Connection (sun.rmi.transport)

```
package demo;

public class MyProgram{

    public static void main(String ss[]){

        System.out.println(" Good Morning! ");

    }

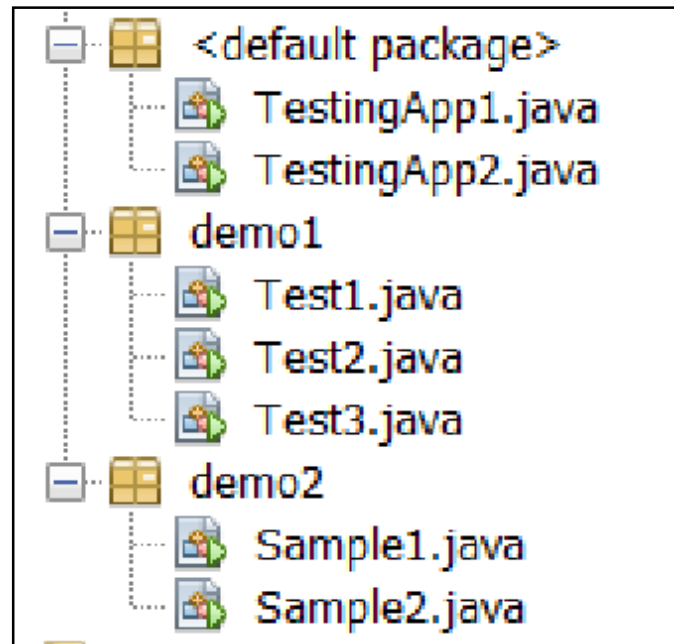
    public void show(){

        System.out.println(" Method Show ");

    }

}
```

## D:\Java Programs



## ACCESS MODIFIERS

```
class Test{  
    public int a;  
    private int b;  
    protected int c;  
    int d;  
}
```

Package Level Access

# Modifiers

**Java provides two types of modifiers**

- 1. Access Modifiers**
- 2. Non-Access Modifiers**

**private**  
**default or No Modifier**  
**protected**  
**public**

**static**  
**final**  
**abstract**  
**synchronized**  
**transient**  
**volatile**  
**strictfp**

```
class Test
{
    int x,y;
    void test1()
    {
        System.out.println(" X : "+x);
        System.out.println(" Y : "+y);
    }
}
```

```
class A
{

}
```

```
class B
{

}
```



```
class Test
{
    int x,y;
    void test1()
    {
        System.out.println(" X   : "+x);
        System.out.println(" Y   : "+y);
    }
}
```

```
class A
{
    void display1()
    {
        Test t1=new Test();
        t1.x=50;
        t1.y=60;
        t1.test1();
    }
}
```

```
class Test
{
    int x,y;
    void test1()
    {
        System.out.println(" X : "+x);
        System.out.println(" Y : "+y);
    }
}
```

```
class B extends Test
{
    void display1()
    {
        x=50;
        y=60;

        test1();
    }
}
```

## Access Modifiers

---

**private**

**protected**

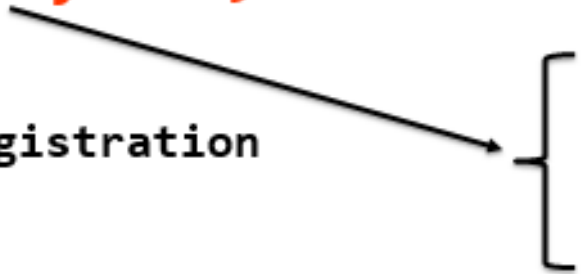
**public**

**default** (**friendly modifier**)

# Packages

```
package yahoo;
```

```
class Registration  
{  
}
```



A black arrow points from the word 'yahoo' in the 'package yahoo;' line to a large curly bracket. To the right of the bracket are three lines of text: 'Sub packages', 'Classes', and 'Interfaces'.

- Sub packages
- Classes
- Interfaces

# Packages

---

```
package demo1;  
public class Test1  
{  
}
```

```
package demo1;  
public class Test2  
{  
}
```

```
package demo1;  
public class Test3  
{  
}
```

Test1.java

Test2.java

Test3.java

# Packages

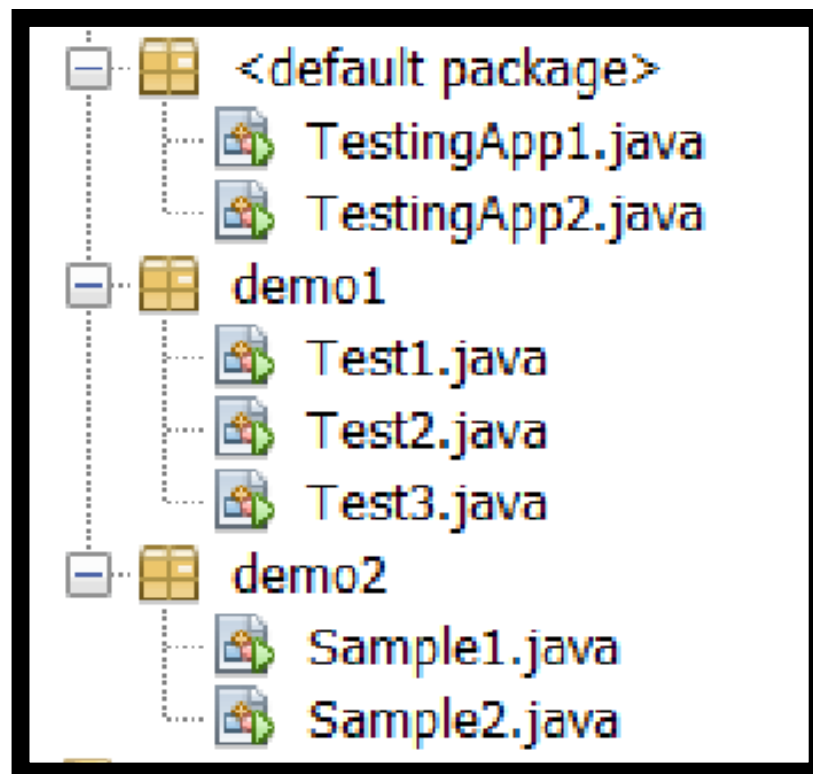
```
package demo1;  
public class Test1  
{  
    int v1;  
    private int v2;  
    protected int v3;  
    public int v4;  
}
```

```
package demo1;  
public class Test2  
{  
  
}
```

```
package demo2;  
public class Test3  
{  
}
```

```
public class Test4  
{  
}
```

## D:\Java Programs



```
package demo;

public class MyProgram{

    public static void main(String ss[]){

        System.out.println(" Good Morning! ");

    }

    public void show(){

        System.out.println(" Method Show ");

    }

}
```



```
D:\Java Programs>javac demo\MyProgram.java
```

```
D:\Java Programs>java demo.MyProgram  
Good Morning!
```

```
package com.sample.app;

class Test{

    void display(){

        System.out.println(" Welcome ");

    }

    public static void main(String ss[]){

        new Test().display();

    }

}
```

```
D:\Java Programs>javac com\sample\app\Test.java
```

```
D:\Java Programs>java com.sample.app.Test  
Welcome
```