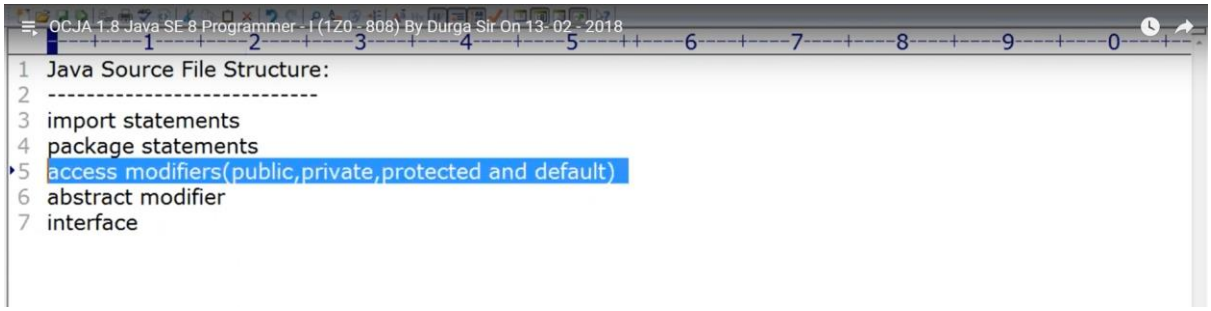
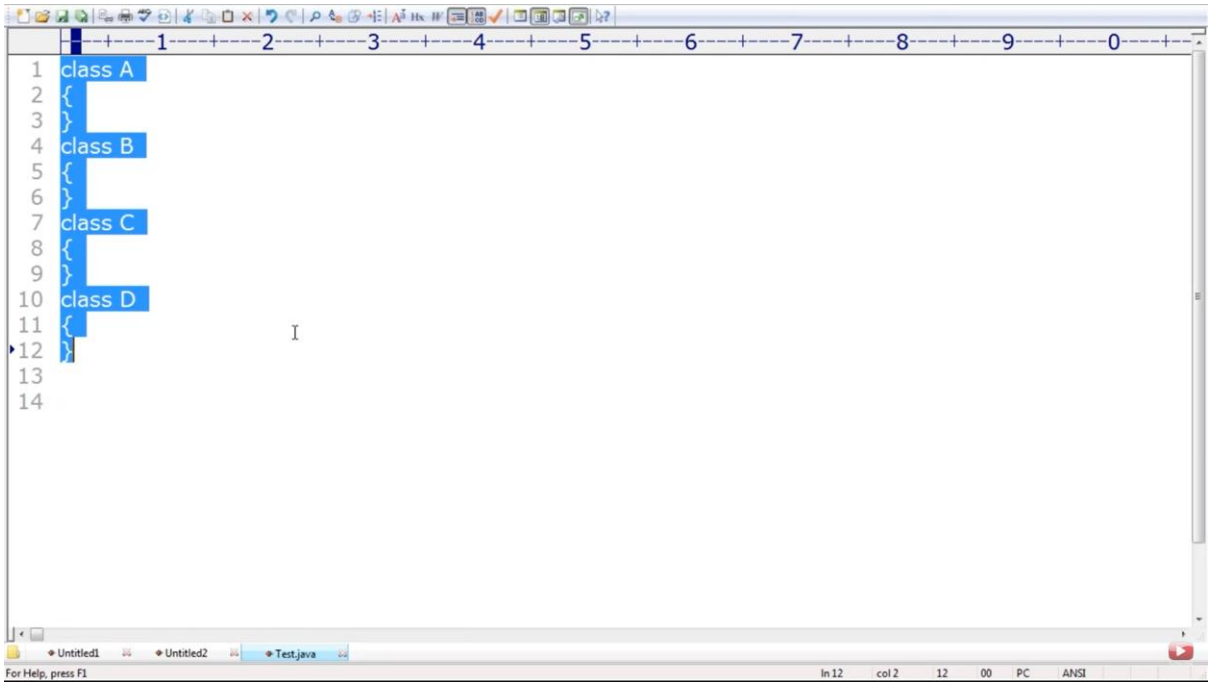
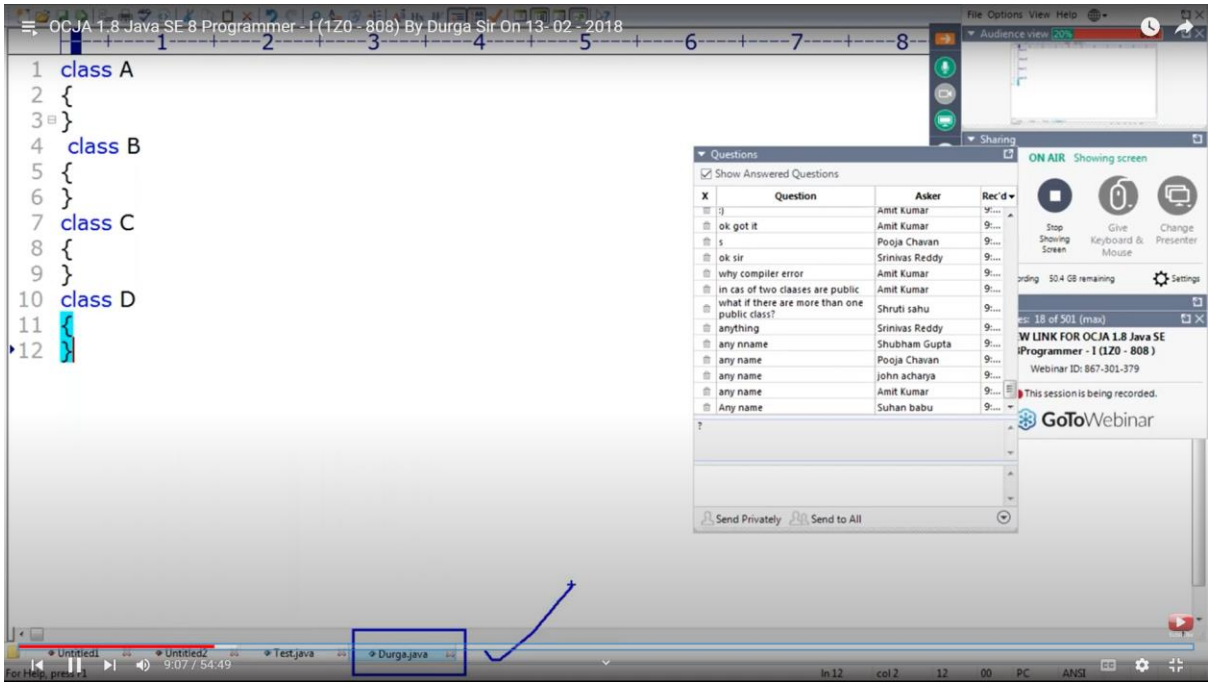


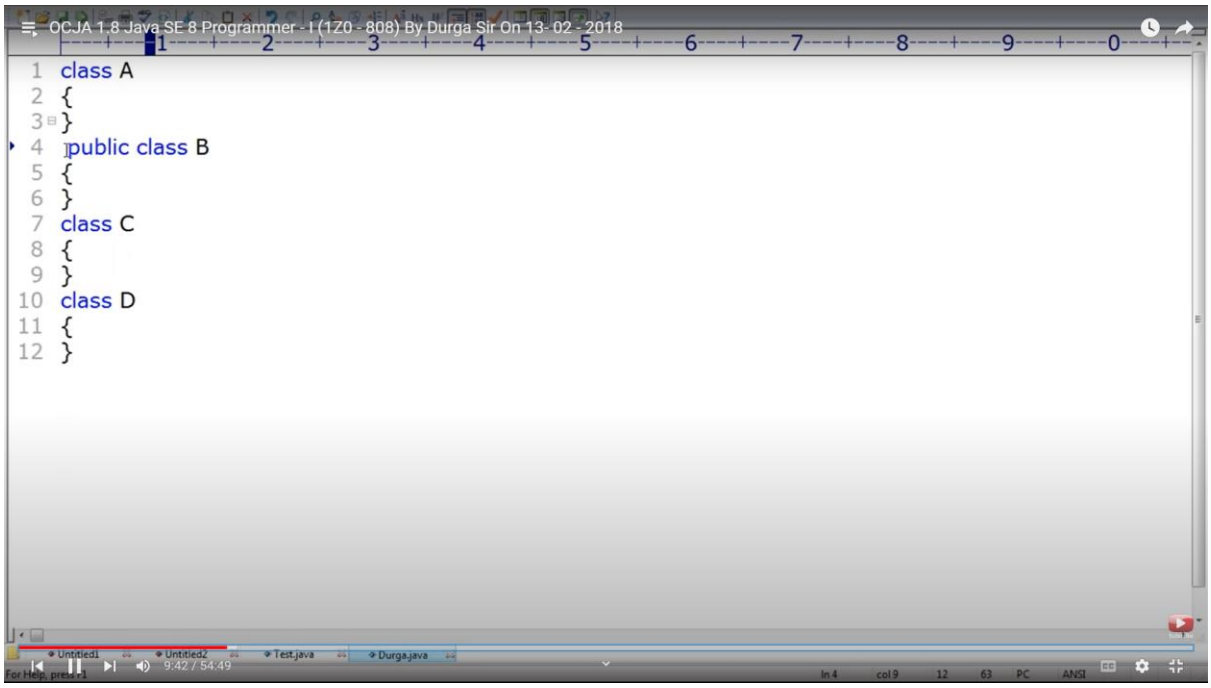
A java program can contain any no of classes. If there is a public class, then the name of the prog should be public class name. Else it can be any class name.

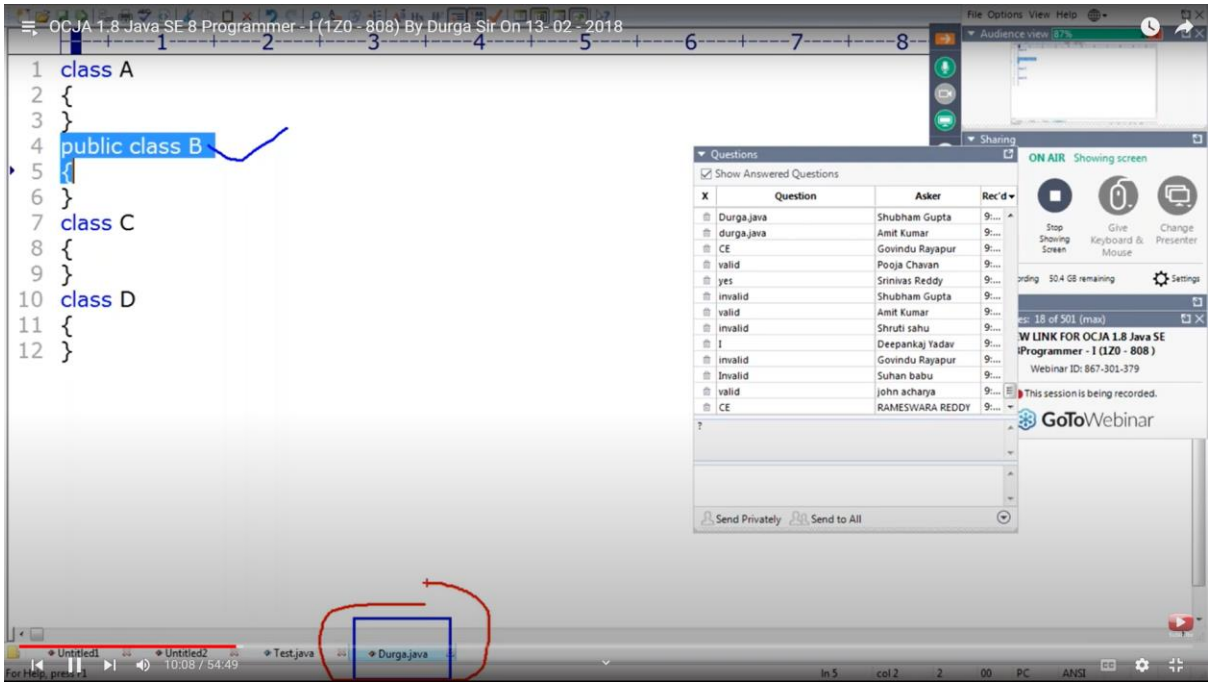
If there are two public, then comp error. It can be 0 or 1 public class.

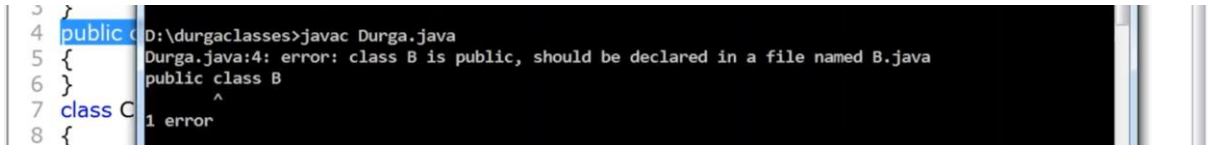


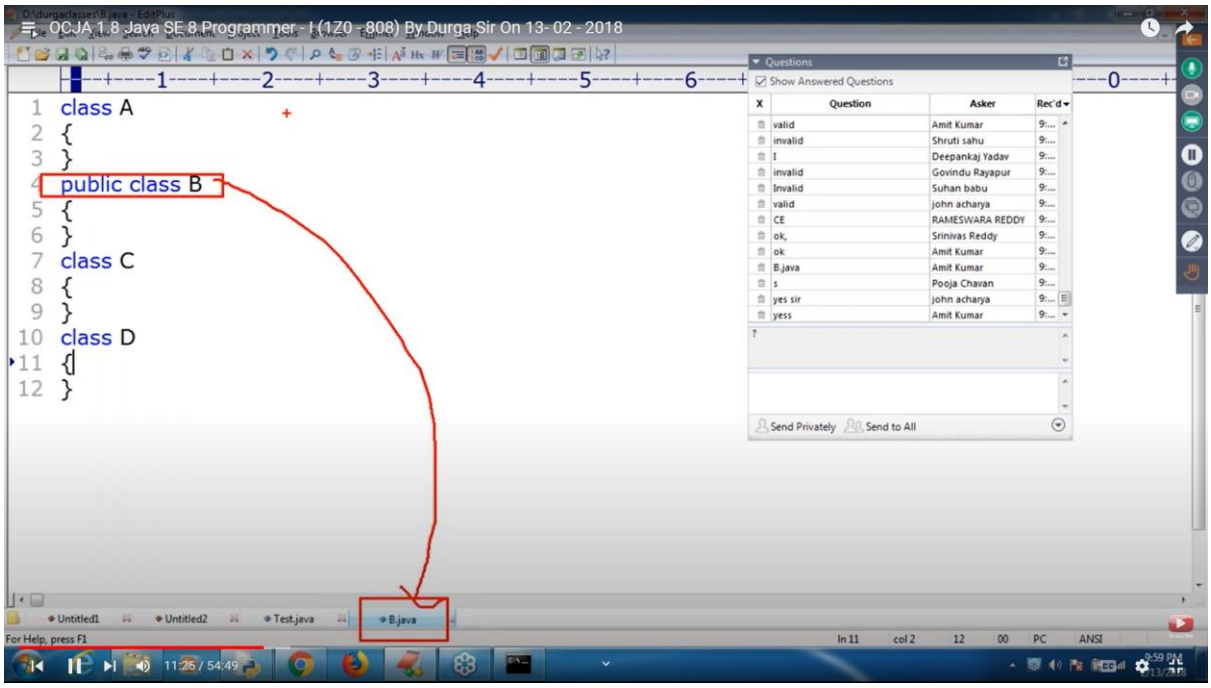

OCJA 1.8 Java SE 8 Programmer - I (1Z0 - 808) By Durga Sir On 13- 02 - 2018
class A
{
}
class B
{
}
class C
{
}
class D
{
}
Questions
Show Answered Questions
Question
Asker
ok got it
Amit Kumar
s
Pooja Chavan
ok sir
Srinivas Reddy
why compiler error
Amit Kumar
in cas of two claases are public
Amit Kumar
what if there are more than one public class?
Shruti sahu
anything
Srinivas Reddy
any nname
Shubham Gupta
any name
Pooja Chavan
any name
john acharya
any name
Amit Kumar
Any name
Suhan babu
Send Privately
Send to All
ON AIR Showing screen
Webinar ID: 867-301-379
This session is being recorded.
GoToWebinar
Untitled1
Untitled2
Test.java
Durga.java
9:07 / 54:49

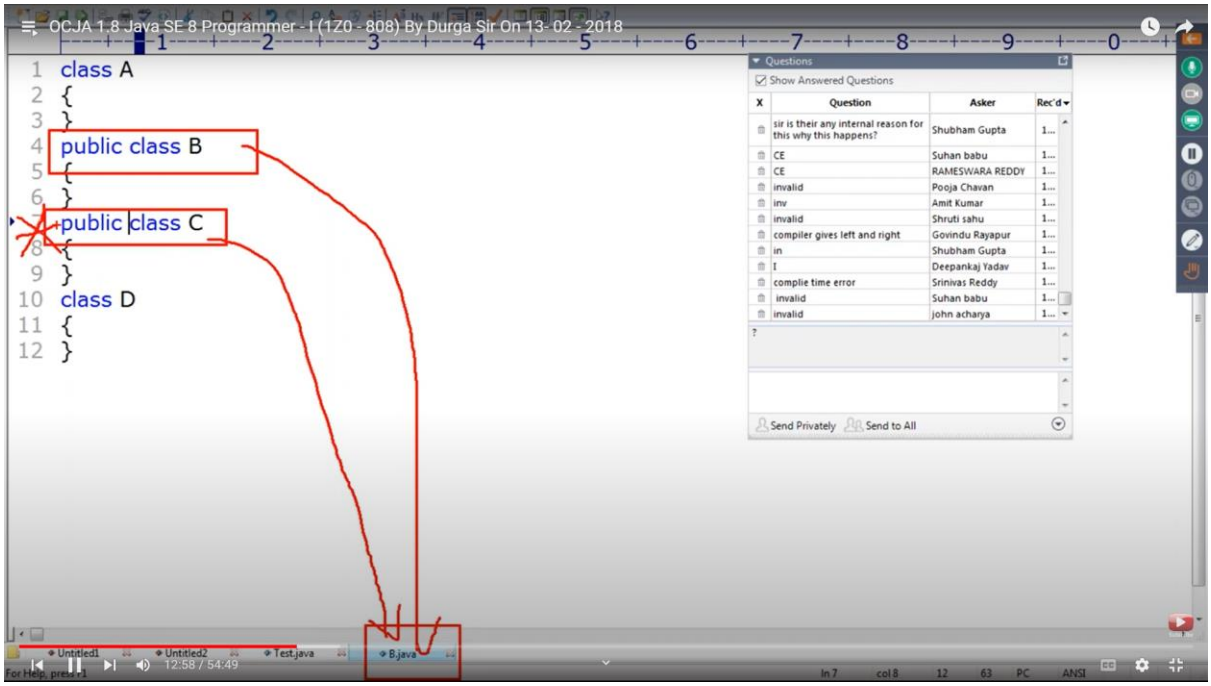

C:\Windows\system32\cmd.exe
D:\durgaclasses>javac Test.java
D:\durgaclasses>java Test
b
D:\durgaclasses>javac Durga.java
D:\durgaclasses>
Computer
4 jan
Recycle Bin
GoToMeet...
Acrobat
GoToWebi...

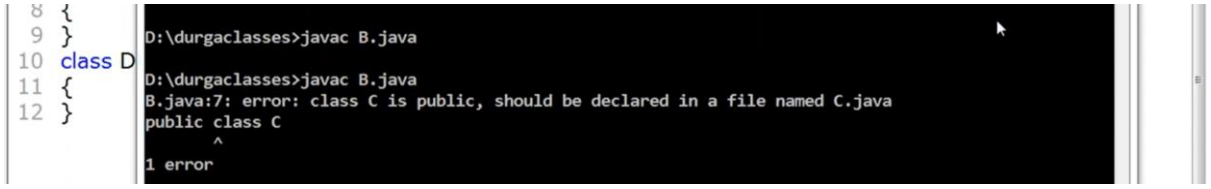

OCJA 1.8 Java SE 8 Programmer - I (1Z0 - 808) By Durga Sir On 13- 02 - 2018
class A
{
}
public class B
{
}
class C
{
}
class D
{
}
Untitled1
Untitled2
Test.java
Durga.java
9:42 / 54:49


OCJA 1.8 Java SE 8 Programmer - I (1Z0 - 808) By Durga Sir On 13- 02 - 2018
class A
{
}
public class B
{
}
class C
{
}
class D
{
}
Questions
Show Answered Questions
Question
Asker
Durga.java
Shubham Gupta
durga.java
Amit Kumar
CE
Govindu Rayapur
valid
Pooja Chavan
yes
Srinivas Reddy
invalid
Shubham Gupta
valid
Amit Kumar
invalid
Shruti sahu
I
Deepankaj Yadav
invalid
Govindu Rayapur
Invalid
Suhan babu
valid
john acharya
CE
RAMESWARA REDDY
Send Privately
Send to All
ON AIR Showing screen
Webinar ID: 867-301-379
This session is being recorded.
GoToWebinar
Untitled1
Untitled2
Test.java
Durga.java
10:08 / 54:49

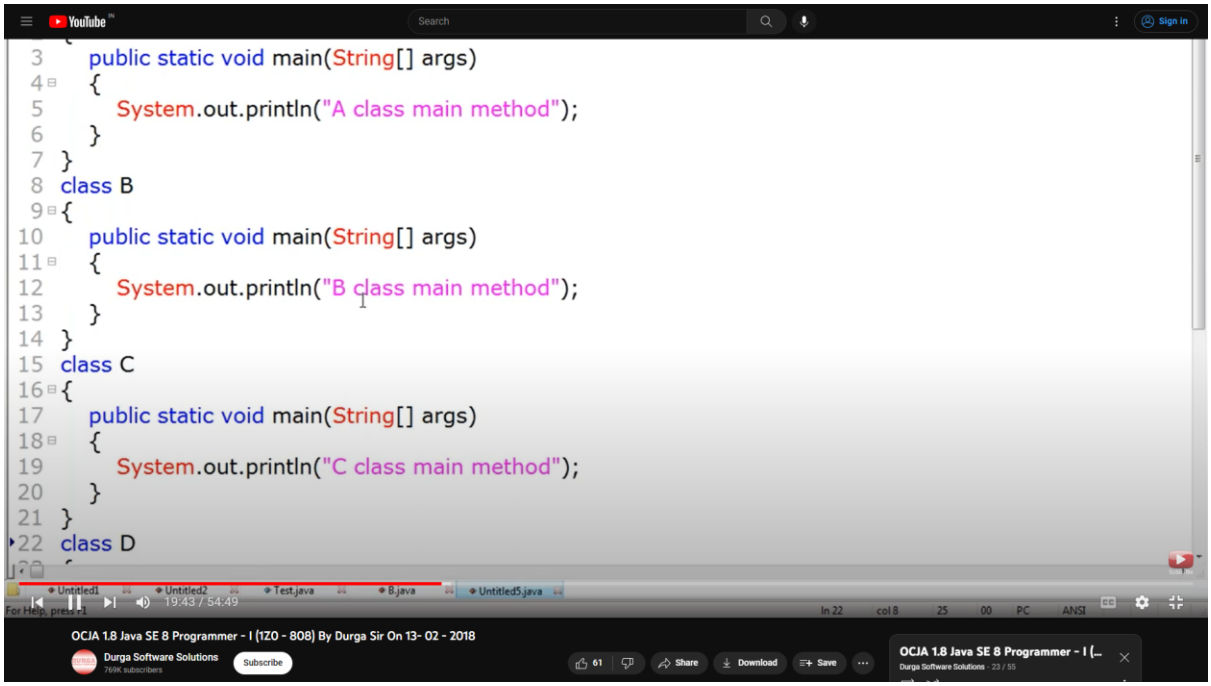

D:\durgaclasses>javac Durga.java
Durga.java:4: error: class B is public, should be declared in a file named B.java
public class B
^
1 error


OCJA 1.8 Java SE 8 Programmer - I (1Z0 - 808) By Durga Sir On 13- 02 - 2018
class A
{
}
public class B
{
}
class C
{
}
class D
{
}
Questions
Show Answered Questions
Question
Asker
valid
Amit Kumar
invalid
Shruti sahu
I
Deepankaj Yadav
invalid
Govindu Rayapur
Invalid
Suhan babu
valid
john acharya
CE
RAMESWARA REDDY
ok,
Srinivas Reddy
ok
Amit Kumar
B.java
Amit Kumar
s
Pooja Chavan
yes sir
john acharya
yess
Amit Kumar
Send Privately
Send to All
Untitled1
Untitled2
Test.java
B.java
11:26 / 54:49

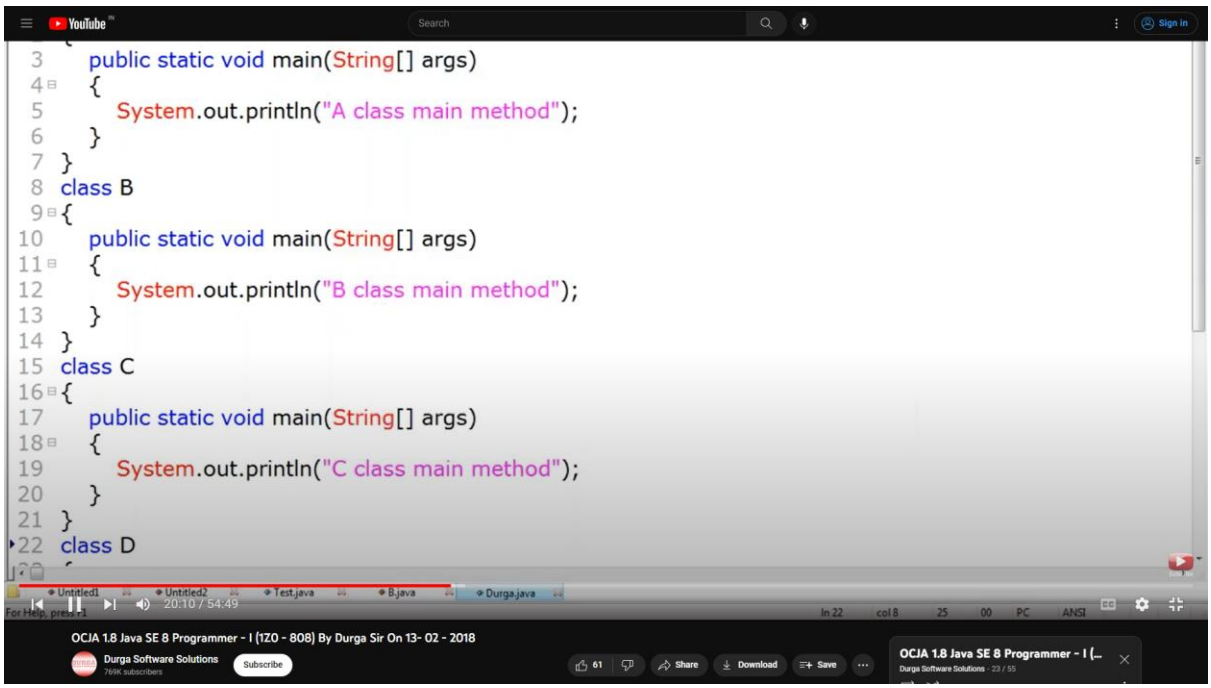




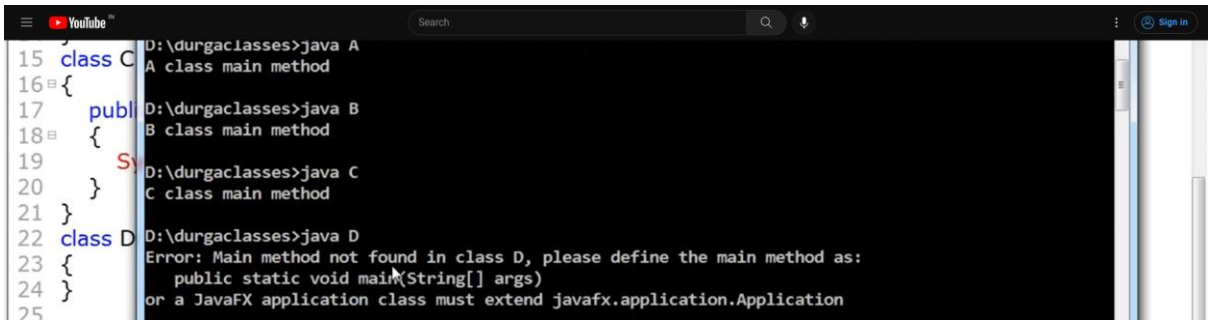
Class which contains the main method should be the class name. No main method has no control on class name



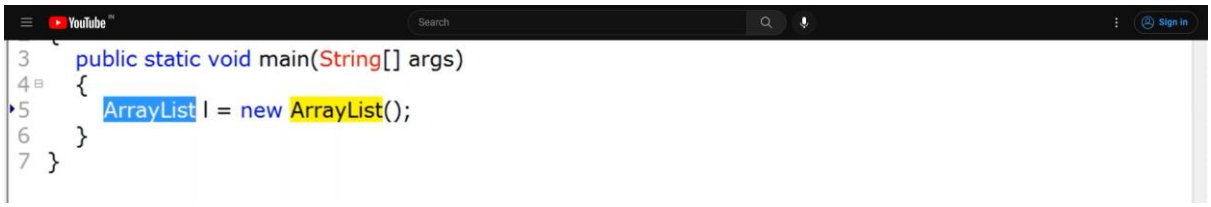
We can name the class any name cos there are no public class

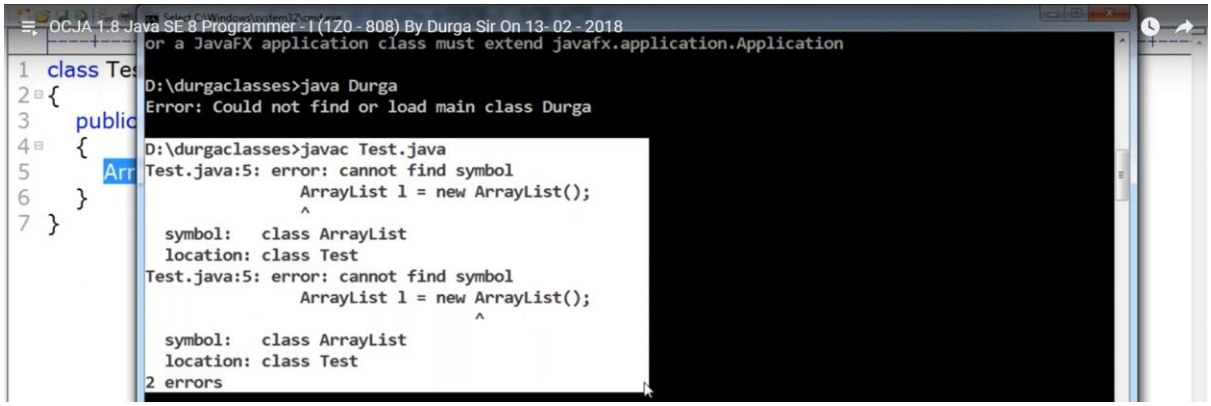


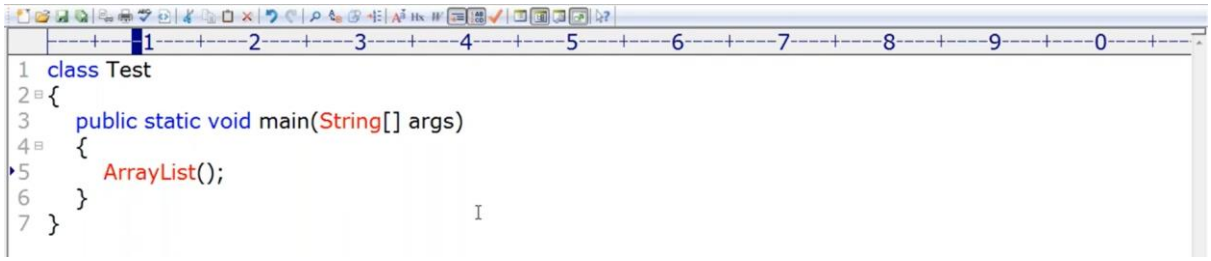
For every class .class file will be generated. Durga.class will not be generated. But though the class will be compiled. At run time A.java , main method in A Class will be executed. If there is no main method then error Main method is not available

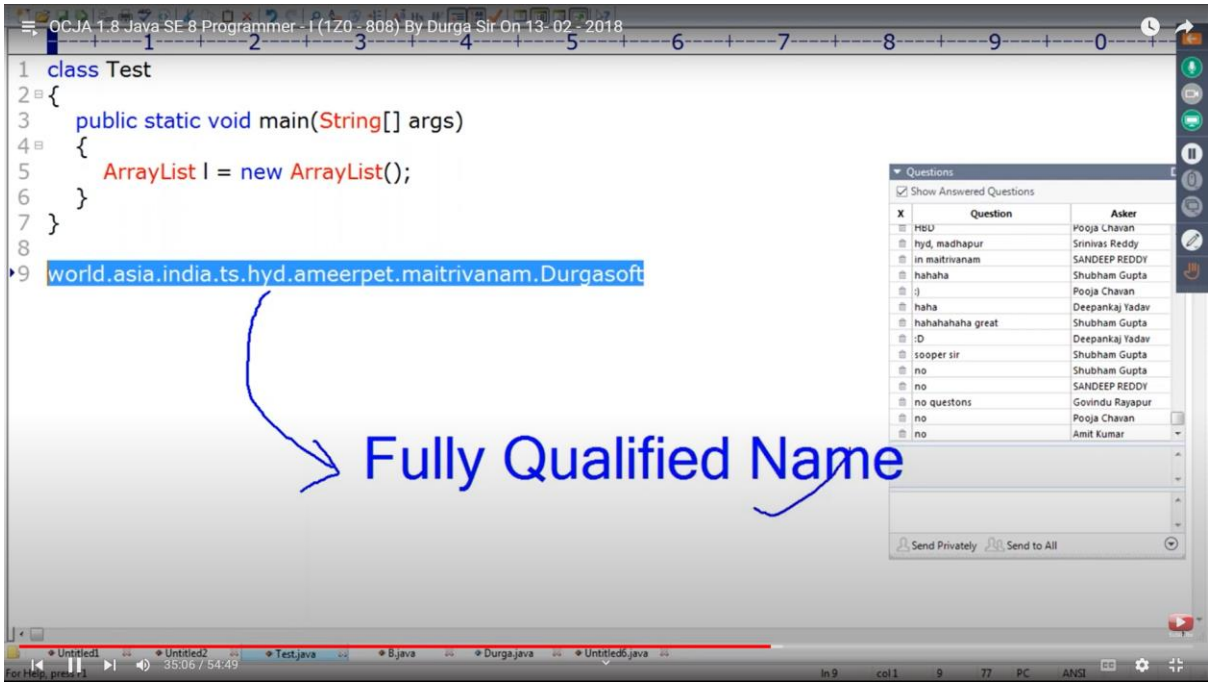


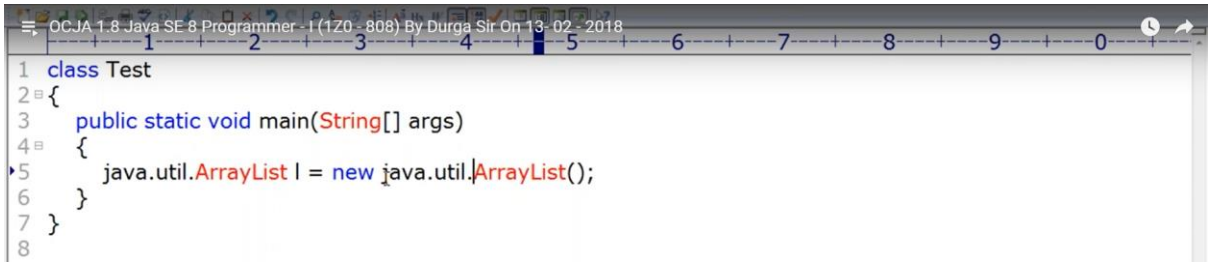
Compiler does not know array list, based on our code it finds if it's a class or method

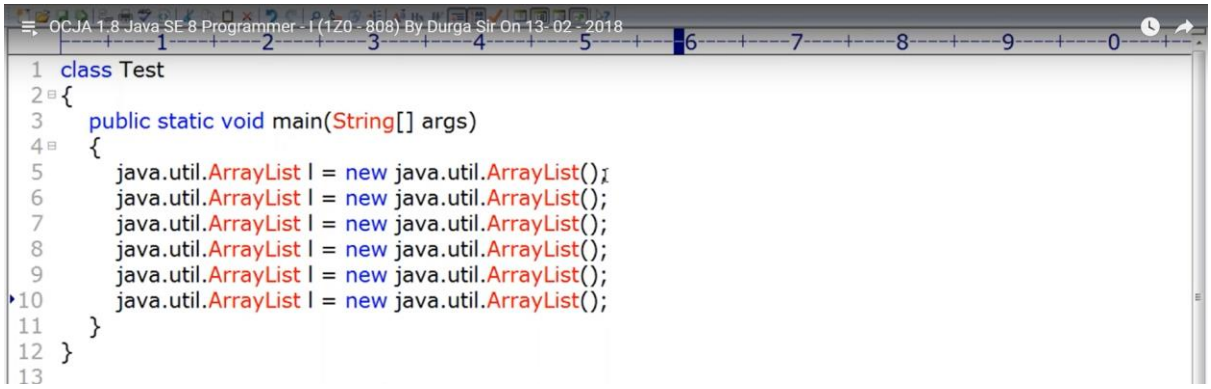


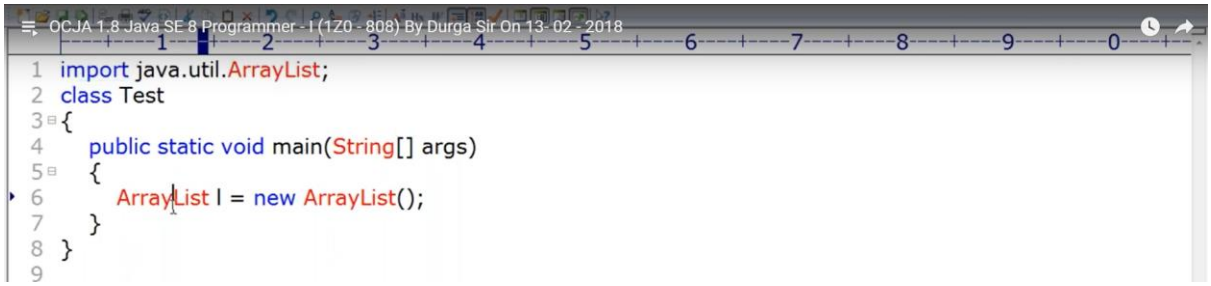




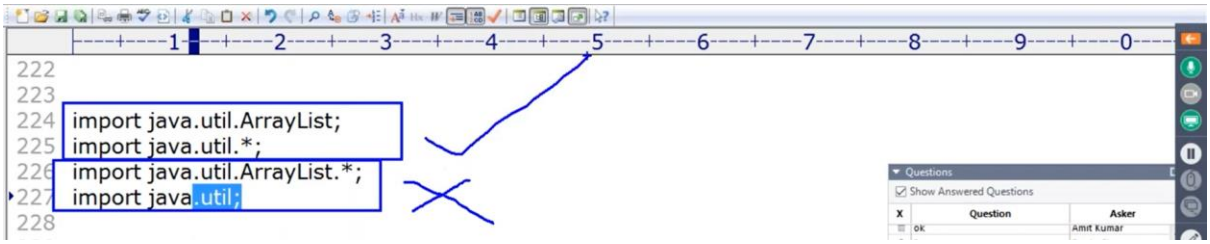

OCJA 1.8 Java SE 8 Programmer - I (1Z0 - 808) By Durga Sir On 13- 02 - 2018
class Test
{
public static void main(String[] args)
{
ArrayList l = new ArrayList();
}
}
world.asia.india.ts.hyd.ameerpet.maitrivanam.Durgasoft
Fully Qualified Name
Questions
Show Answered Questions
Question
Asker
hyd, madhapur
Srinivas Reddy
in maitrivanam
SANDEEP REDDY
hahaha
Shubham Gupta
:)
Pooja Chavan
haha
Deepankaj Yadav
hahahahaha great
Shubham Gupta
:D
Deepankaj Yadav
sooper sir
Shubham Gupta
no
Shubham Gupta
no
SANDEEP REDDY
no questons
Govindu Rayapur
no
Pooja Chavan
no
Amit Kumar
Send Privately
Send to All


OCJA 1.8 Java SE 8 Programmer - I (1Z0 - 808) By Durga Sir On 13- 02 - 2018
class Test
{
public static void main(String[] args)
{
java.util.ArrayList l = new java.util.ArrayList();
}
}

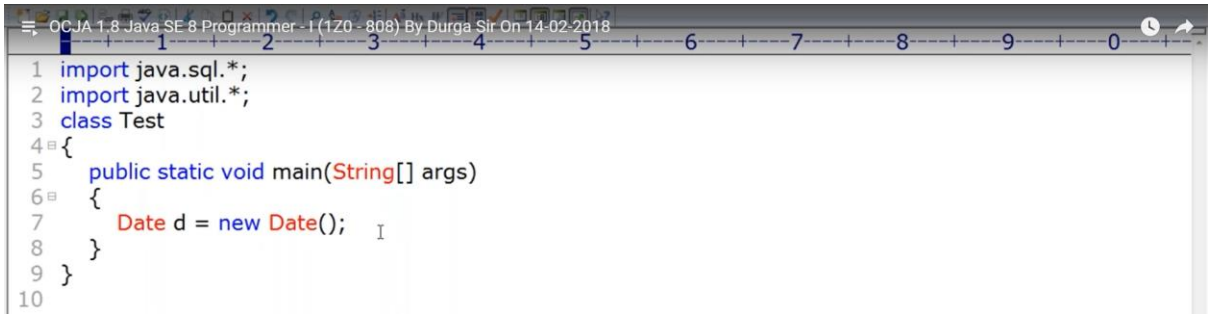

OCJA 1.8 Java SE 8 Programmer - I (1Z0 - 808) By Durga Sir On 13- 02 - 2018
class Test
{
public static void main(String[] args)
{
java.util.ArrayList l = new java.util.ArrayList();
java.util.ArrayList l = new java.util.ArrayList();
java.util.ArrayList l = new java.util.ArrayList();
java.util.ArrayList l = new java.util.ArrayList();
java.util.ArrayList l = new java.util.ArrayList();
java.util.ArrayList l = new java.util.ArrayList();
}
}

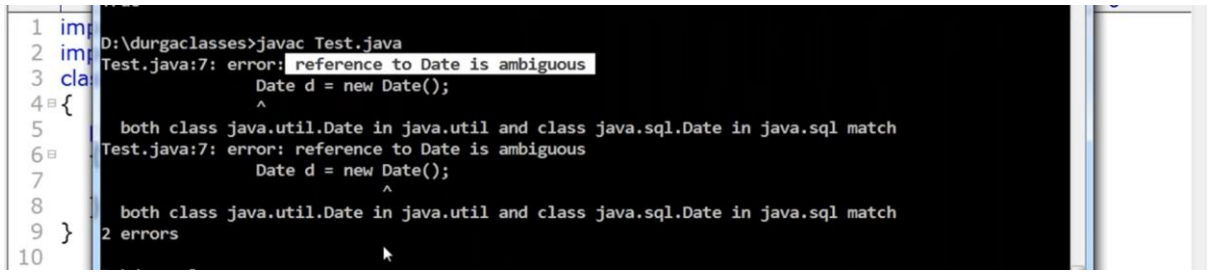

OCJA 1.8 Java SE 8 Programmer - I (1Z0 - 808) By Durga Sir On 13- 02 - 2018
import java.util.ArrayList;
class Test
{
public static void main(String[] args)
{
ArrayList l = new ArrayList();
}
}

After package semi colon is invalid, After class * is invali no more classes ater ArrayList

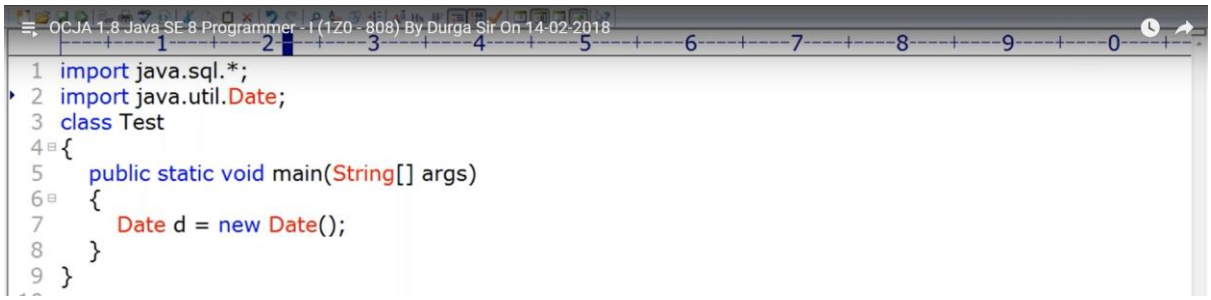


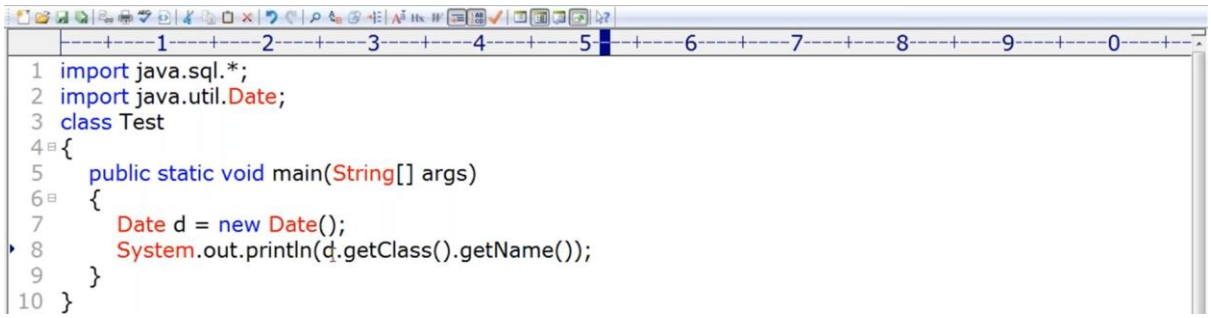
Memory and per wise both are the same. At compile time no class will be loaded. Readability wise Explicit Is recommended





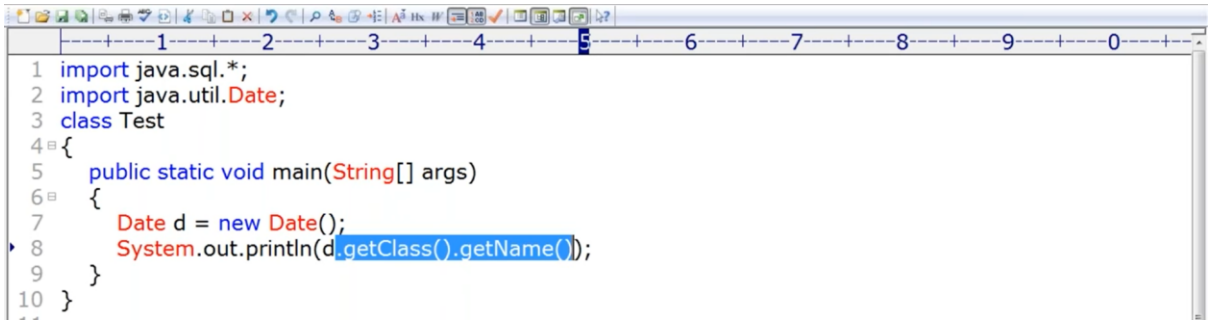
Explicit date specified so no error



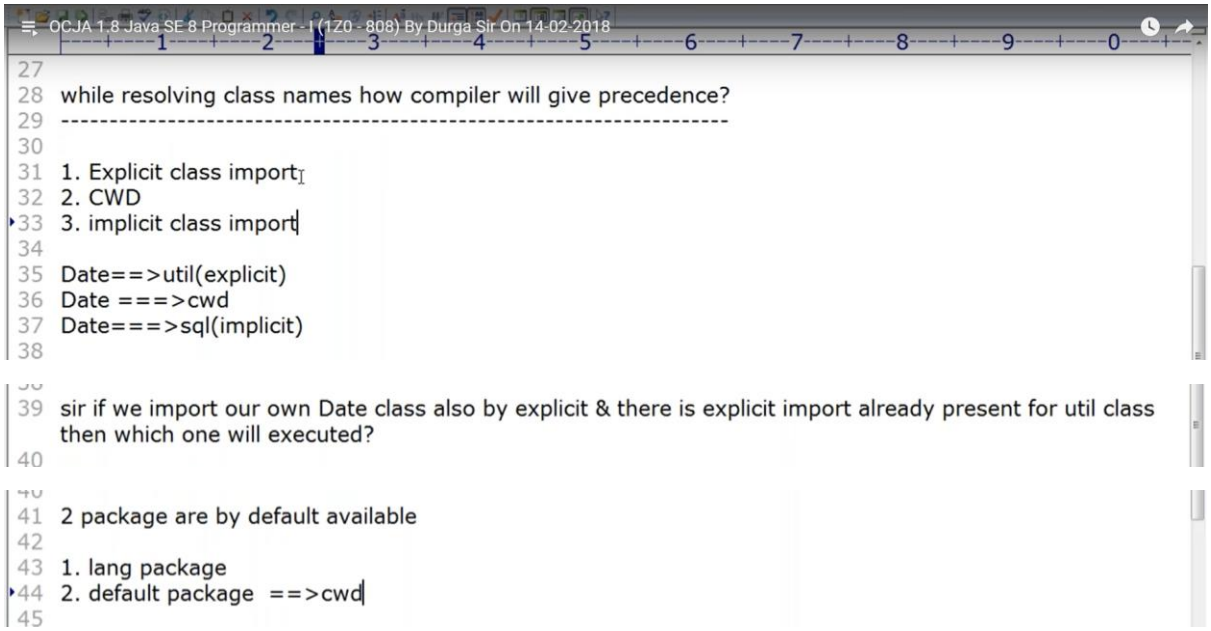


Three dates class are available. Highest priority?

If you have a date class in current working Directory.

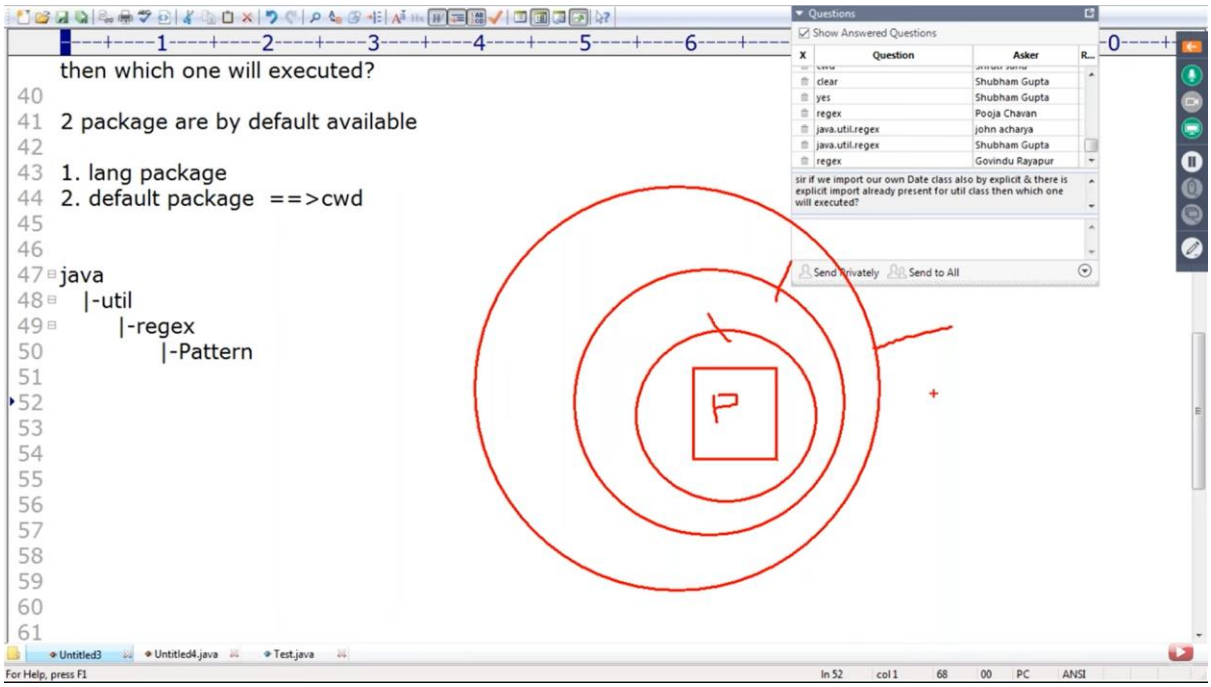


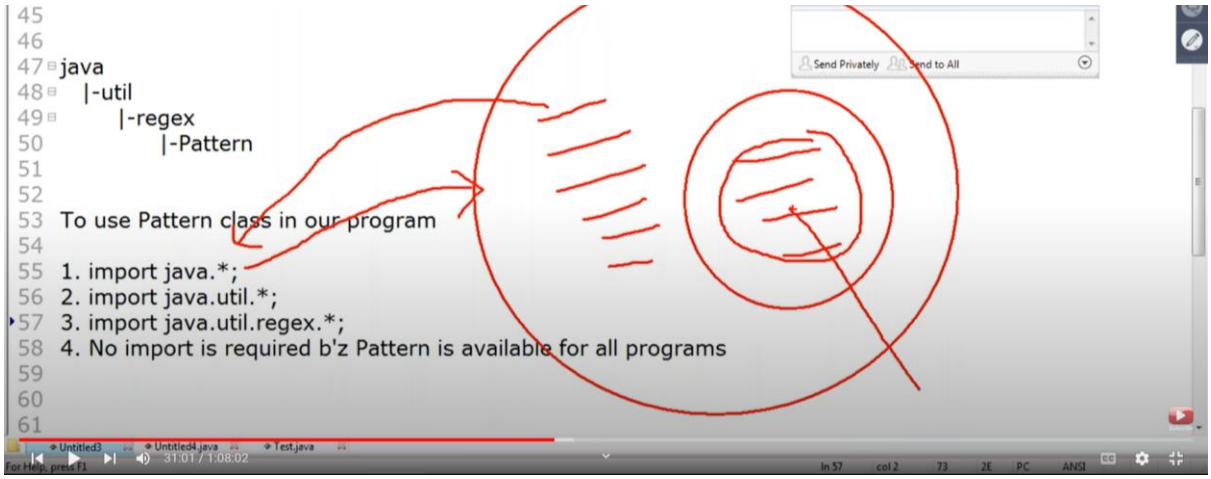
```
1  import java.sql.*;
2  import java.util.Date;
3  class Test
4  {
5     public static void main(String[] args)
6     {
7        Date d = new Date();
8        System.out.println(d.getClass().getName());
9     }
10 }
```




```
27
28 while resolving class names how compiler will give precedence?
29 ----------------------------------------------------------------
30
31 1. Explicit class import
32 2. CWD
33 3. implicit class import
34
35 Date==>util(explicit)
36 Date ===>cwd
37 Date===>sql(implicit)
38
39 sir if we import our own Date class also by explicit & there is explicit import already present for util class
   then which one will executed?
40
41 2 package are by default available
42
43 1. lang package
44 2. default package  ==>cwd
45
```

You don’t need to import the classes in CWD by default its imported. Even then the Explicit will take high priority.

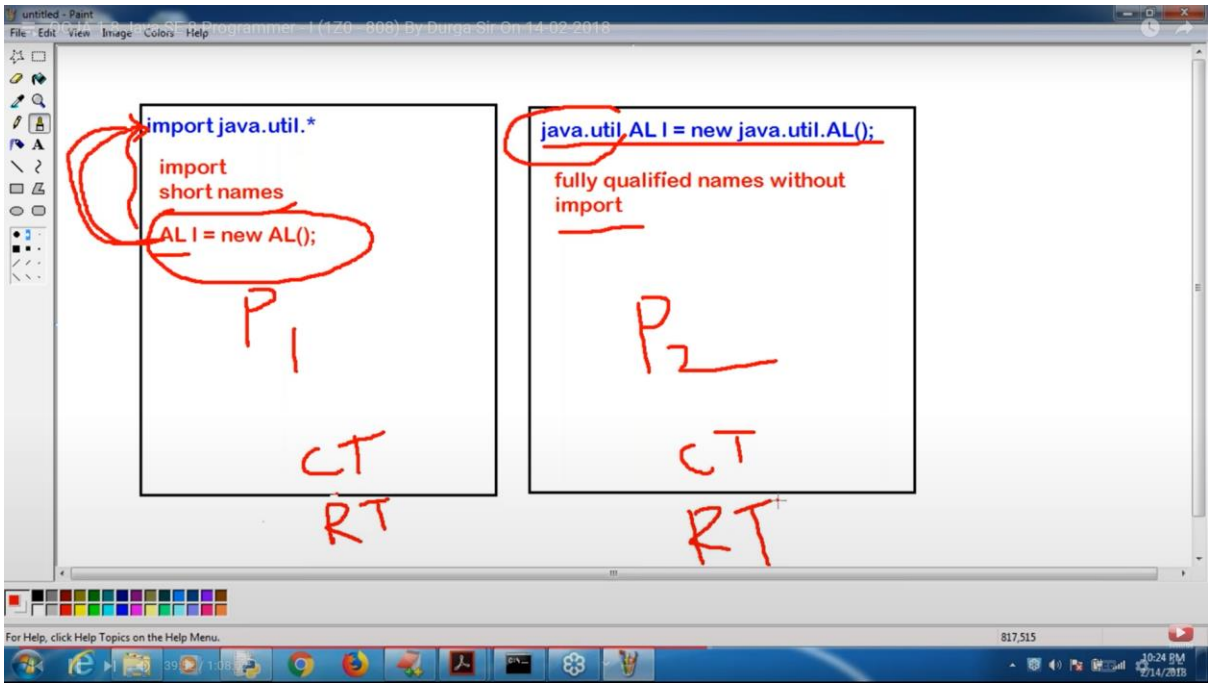




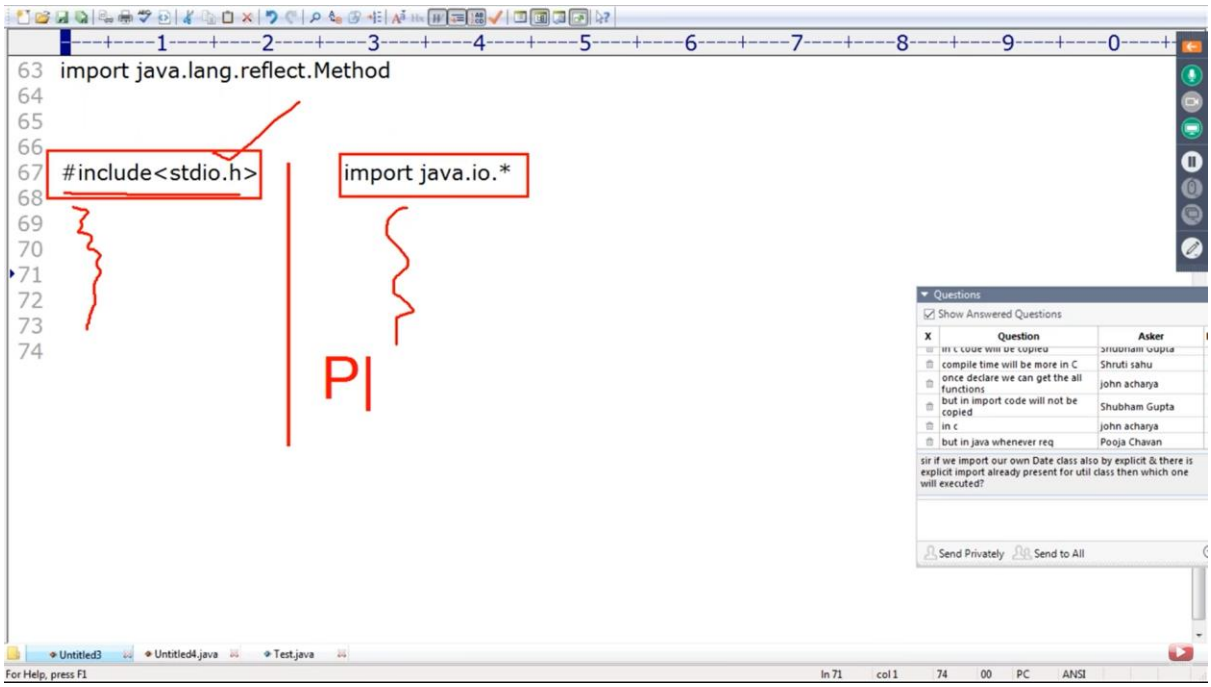
1.If you use java.* - all packages in java package will be imported but not the subpckage so wrong

If I want to use Method we need to either us reflect.* or reflect.Method

1 st one take more compile time. Run time takes equal time



In c all classes will be loaded first before it moves to the next line. In java nothing will be loaded only when the classes are used. Load on claim



```
64
65
66
67 #include<stdio.h>          import java.io.*
68
69
70 if it refers at that particular time ..let us assume of 100 imports are there then it has to look up 100 times
   in package right.wont it cause any delay?
71
72
```

When a classes are loaded , JVM will not load it again. If its diff classes then they will load everything for each classes/

```
70 if it refers at that particular time ..let us assume of 100 imports are there then it has to look up 100 times
   in package right.wont it cause any delay?
71
72
73 static import:
74 ---------------
75 by using class name
76 Sop(Math.sqrt(4));
77 Sop(Math.sqrt(4));
78 Sop(Math.sqrt(4));
79 Sop(Math.sqrt(4));
80 Sop(Math.sqrt(4));
81 Sop(Math.sqrt(4));
82 Sop(Math.sqrt(4));
83 Sop(Math.PI);
84
85
86
```

Untitled3 | Untitled4.java | Test.java

For Help, press F1 — ln 80 col 9 86 2E PC ANSI

```
1  class Test
2  {
3      public static void main(String[] args)
4      {
5          System.out.println(Math.sqrt(4));
6          System.out.println(Math.random());
7          System.out.println(Math.PI);
8      }
9  }
```

```java
import static java.lang.Math.sqrt;
class Test
{
    public static void main(String[] args)
    {
        System.out.println(sqrt(4));
        System.out.println(Math.random());
        System.out.println(Math.PI);
    }
}
```

```java
//import static java.lang.Math.sqrt;
import static java.lang.Math.*;
class Test
{
    public static void main(String[] args)
    {
        System.out.println(sqrt(9));
        System.out.println(random());
        System.out.println(PI);
    }
}
```

Out is a static variable inside System class. And println is a method of out


```java
class Test
{
    public static void main(String[] args)
    {
        System.out.println("Hello Dont get shock");
    }
}
```



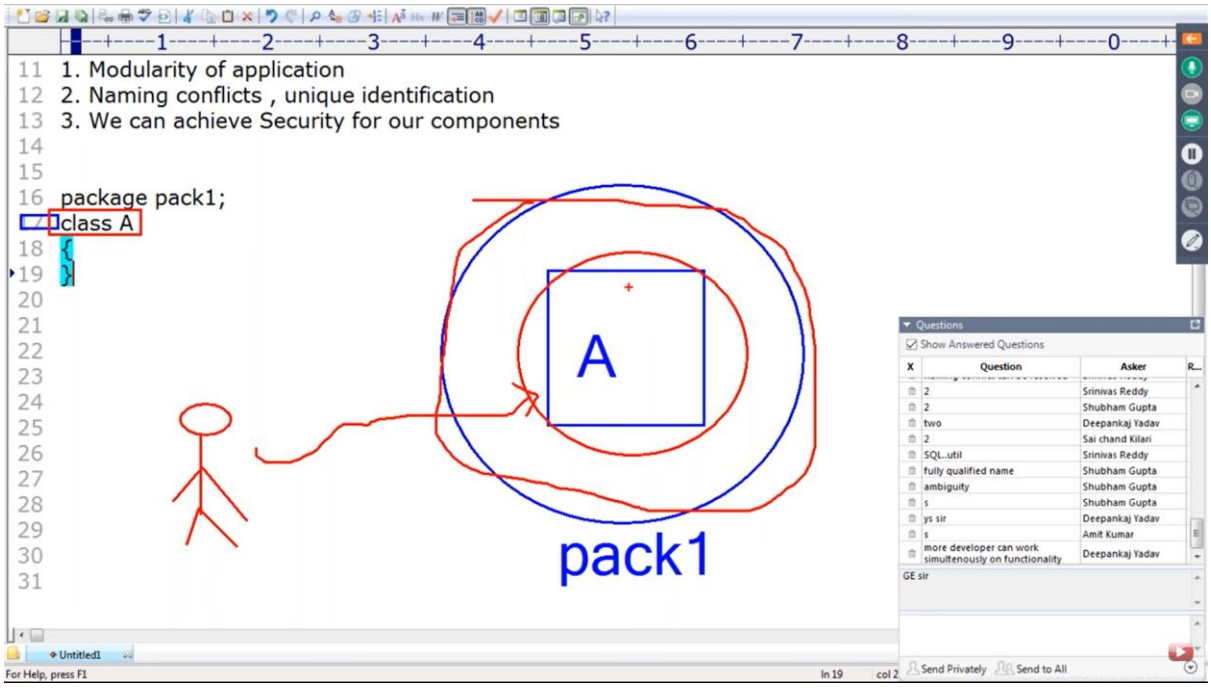
```java
import static java.lang.System.out;
class Test
{
    public static void main(String[] args)
    {
        out.println("Hello Dont get shock");
        out.println("It is valid");
    }
}
```

Package:

```
----------------------
package statement
--------------------
It is an encapuslation mechanism to group related things into a single component.

classes and interfaces ==>java.sql package
file i/o operations==>java.io package
```

```
1. Modularity of application
2. Naming conflicts

   Date
   Date
   java.sql.Date
```

```
3. We can achieve Security for our components
```




```
package pack1;

unique identification : internet domain

com.icicibank.loan.housingloan.Account
```

```
1  package com.durgasoft.ocja;
2  public class Test
3  {
4     public static void main(String[] args)
5     {
6        System.out.println("package demo");
7     }
8  }
9
```

I am expecting the .class files to be generated in the package but its getting created in the current working directory.

```
D:\durgaclasses>javac Test.java

D:\durgaclasses>dir Test.class
 Volume in drive D is New Volume
 Volume Serial Number is 9430-0171

 Directory of D:\durgaclasses

02/15/2018  10:01 PM               436 Test.class
               1 File(s)            436 bytes
               0 Dir(s)  278,959,550,464 bytes free
```

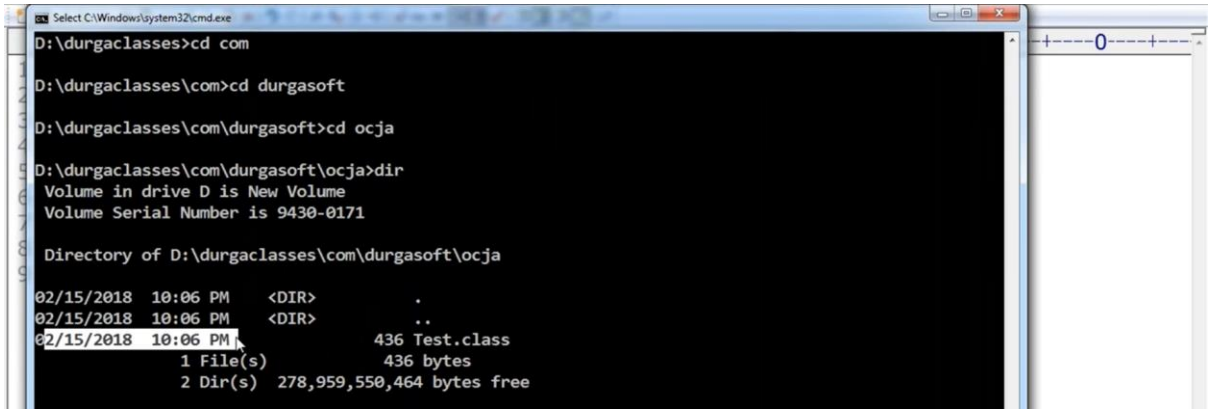
```
32
33 javac  -d   .   Test.java
34
```

-d -→ desination

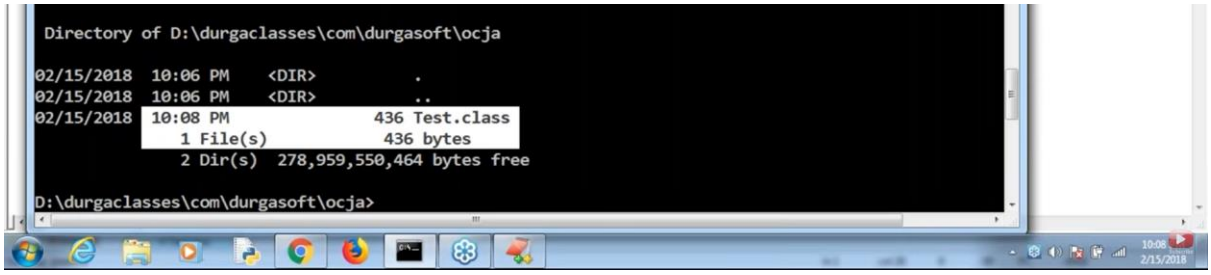
```
26
27
28 com.icicibank.loan.housingloan.Account
29
30
31 javac  Test.java==>cwd
32
33 javac   -d   .   Test.java==>
34
35
36
```

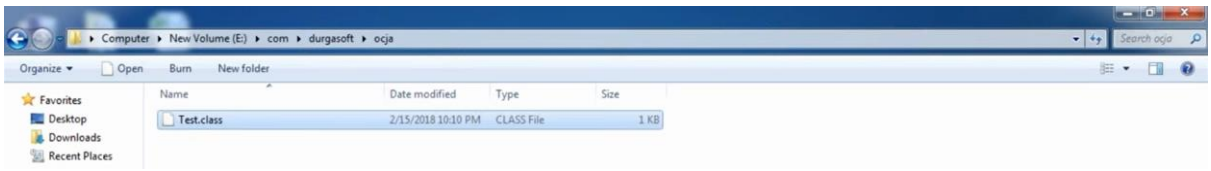
com
|-durgasoft
|-ocja
|-Test.class

```
D:\durgaclasses>javac -d . Test.java
```



If the package structure is already there it will overwrite the class files else it will create a new folder structure

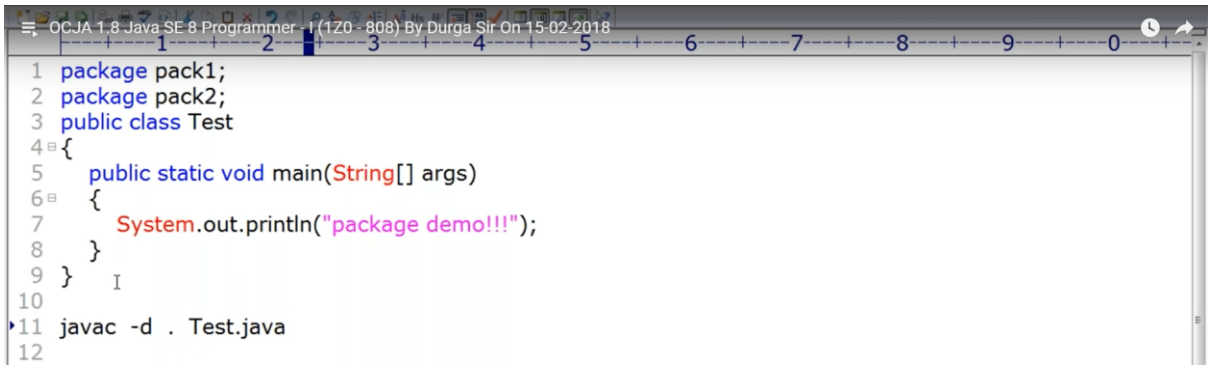


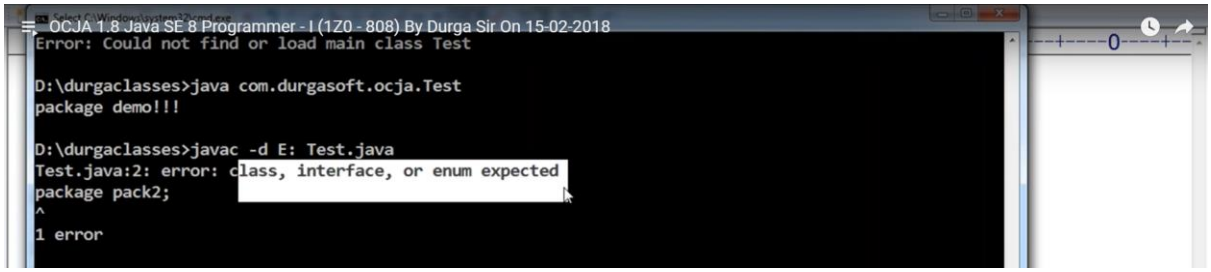


Whenever you are using package structure at run time u need to specify fully qualified package name

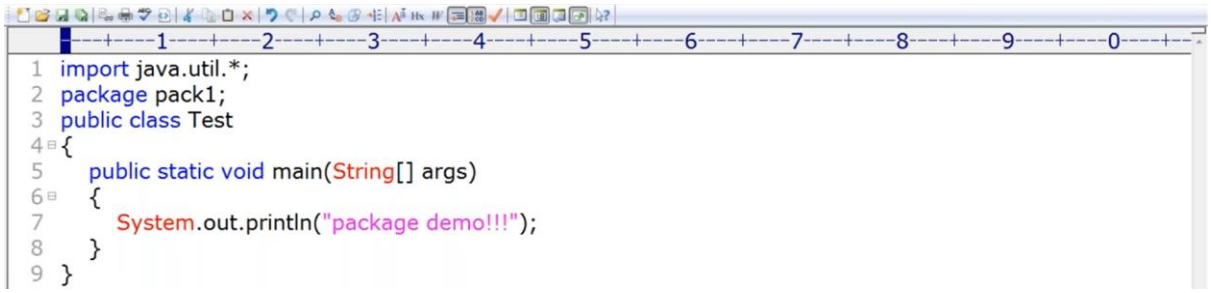
```
D:\durgaclasses>java Test
Error: Could not find or load main class Test

D:\durgaclasses>java com.durgasoft.ocja.Test
package demo!!!

D:\durgaclasses>
```

Compile time error. Atmost 1 package for any java program





In any program, first non comment line should be Package Statement



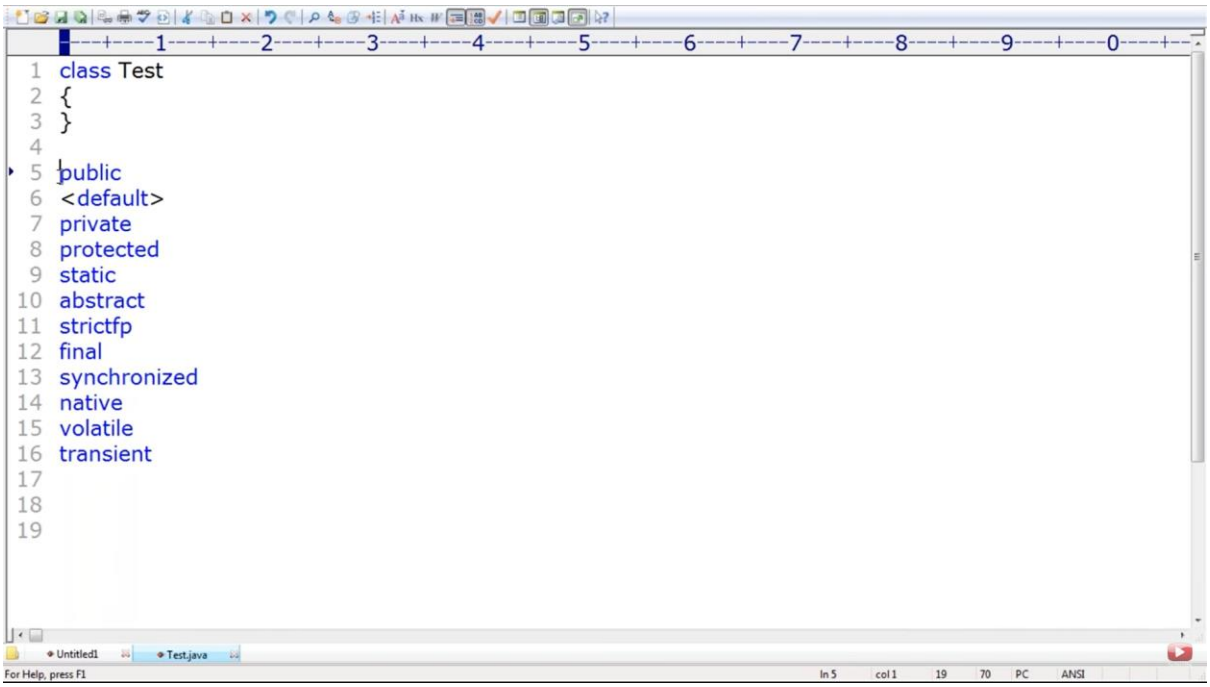

```
D:\durgaclasses>javac -d E: Test.java
Test.java:2: error: class, interface, or enum expected
package pack1;
^
1 error
```

1. In any java program atmost one pkg statement is allowed
2. the pkg statement should be first non-comment statement

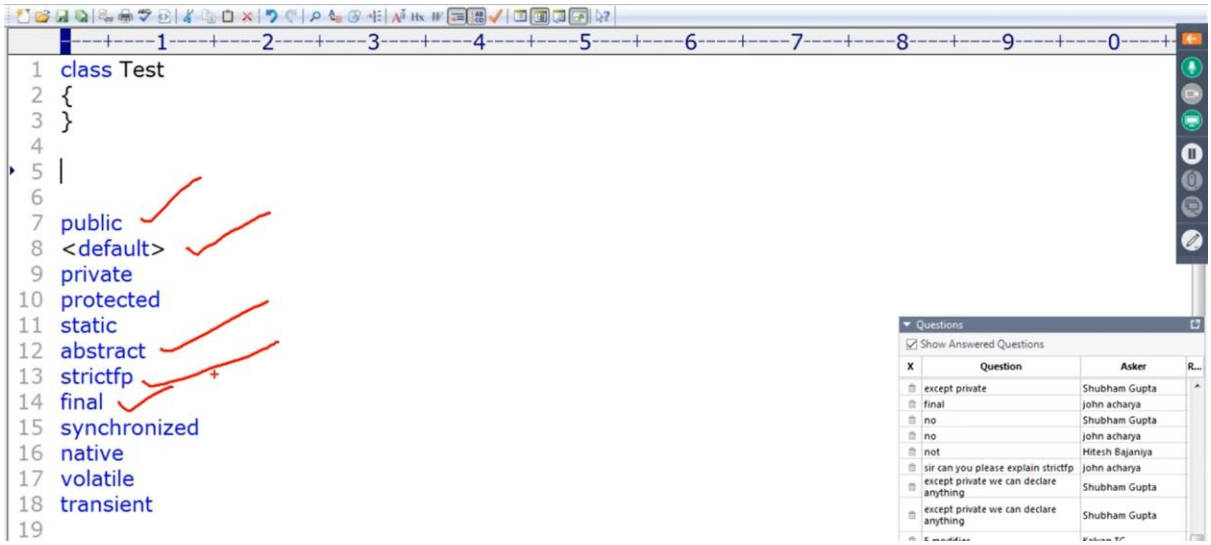
Java source file structure. A java program can contain 0 or any no of class , interface or enum

```
package statement// atmost one
import statements// any number
class or interface or enum declarations// any number
```

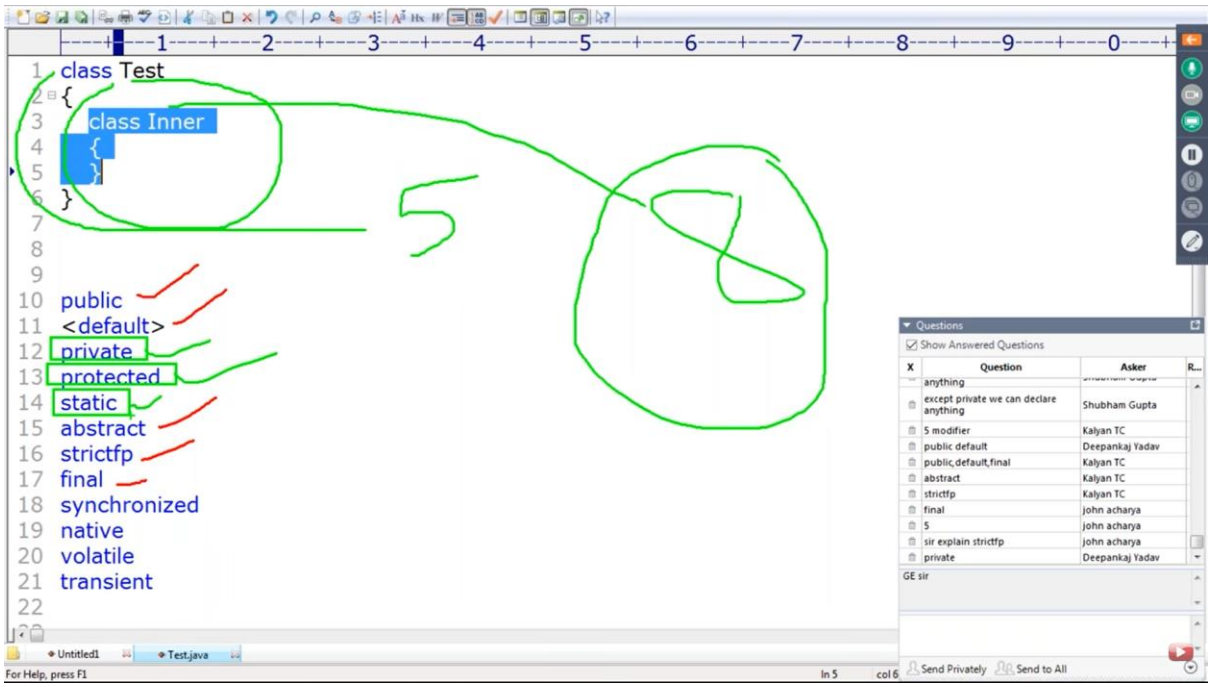
Modifiers



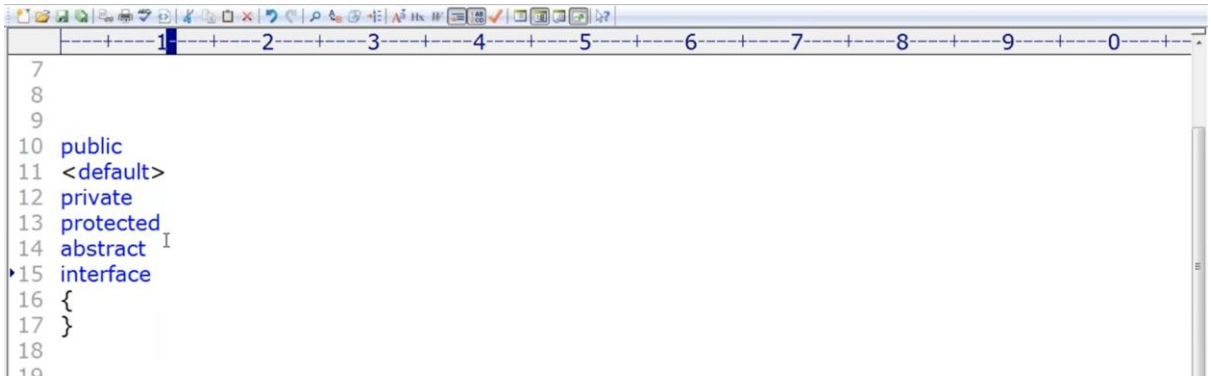
For a top level class only the below 5 modifiers can be used. Top level or outer class



For inner class 8 modifiers can be used



Exam -

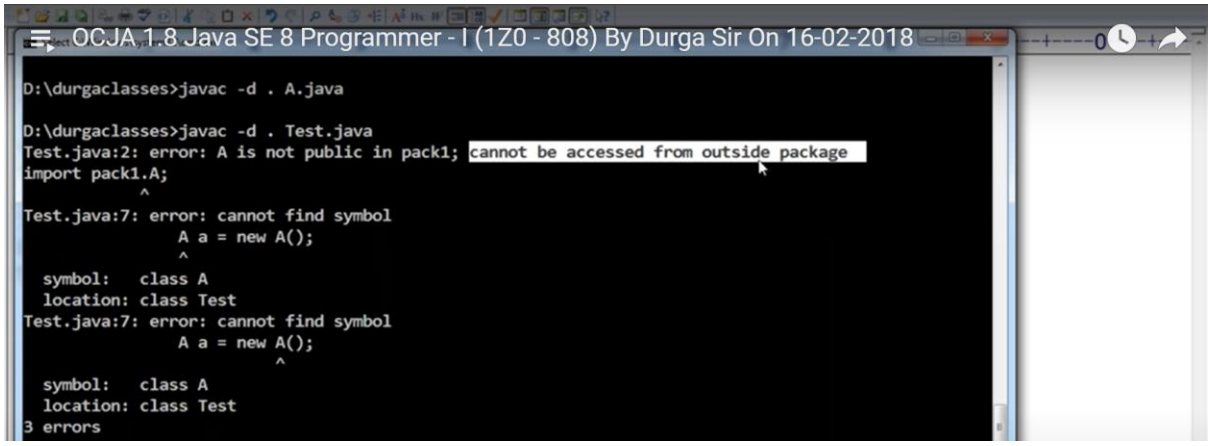


Access Modifier

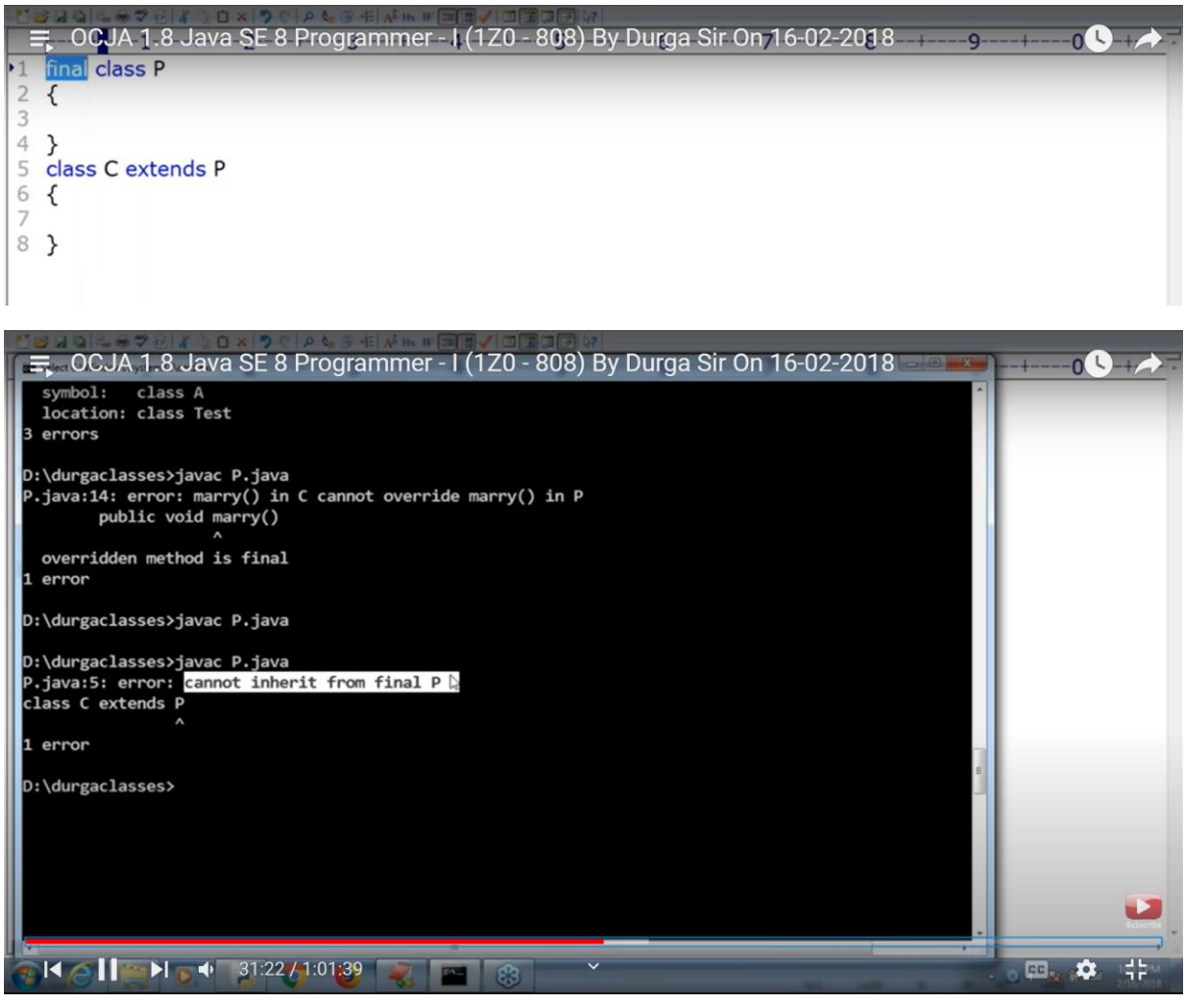
```
1  package pack1;
2  public class A
3  {
4     public void m1()
5     {
6        System.out.println("A class method");
7     }
8  }
9
```

When u import a class from another package it should be Public Then only you can use.


```
14
15
16  1. public :
17  -----------
18  2. default:
19  ----------
20
21  default access ===>package level access
```



```
class P
{
   public void property()
   {
      System.out.println("Power+ca$h+Land+Gold");
   }
   public final void marry()
   {
      System.out.println("Appalamma");
   }
}
class C extends P
{
   public void marry()
   {
      System.out.println("3Sha|4Me|9Tara");
   }
}
```

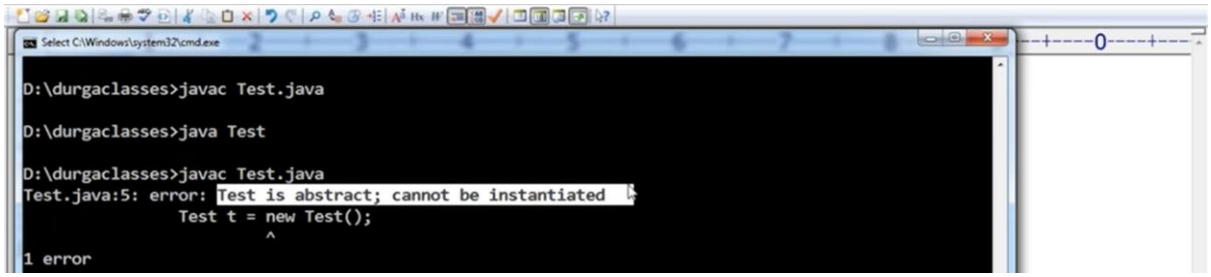


```
----------
3. final:
---------
applicable for classes,methods and variables

final methods are cannot be overridden in child class

final class

3. abstract:
------------
methods and classes  but not for variables
---------------------------------------
```

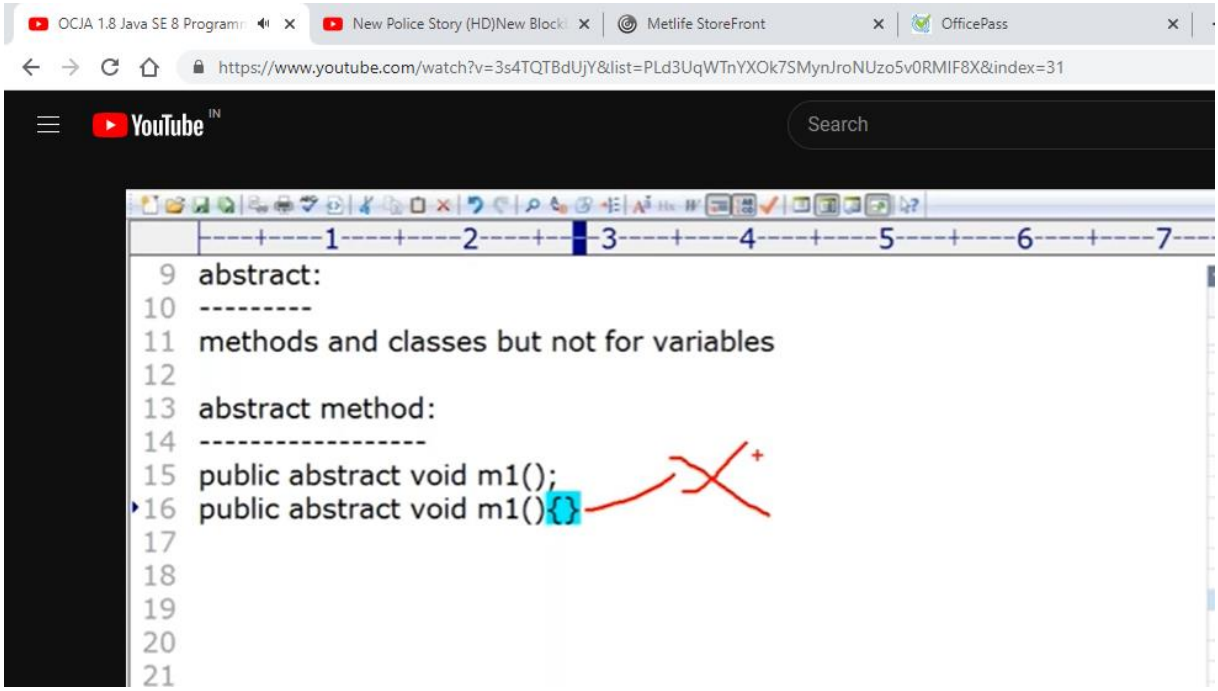
Final synchro static all works around implementation.. wheras abstract does not


```
abstract class:
---------------
partially implemented class

It is not possible to create object for abstract class..
```

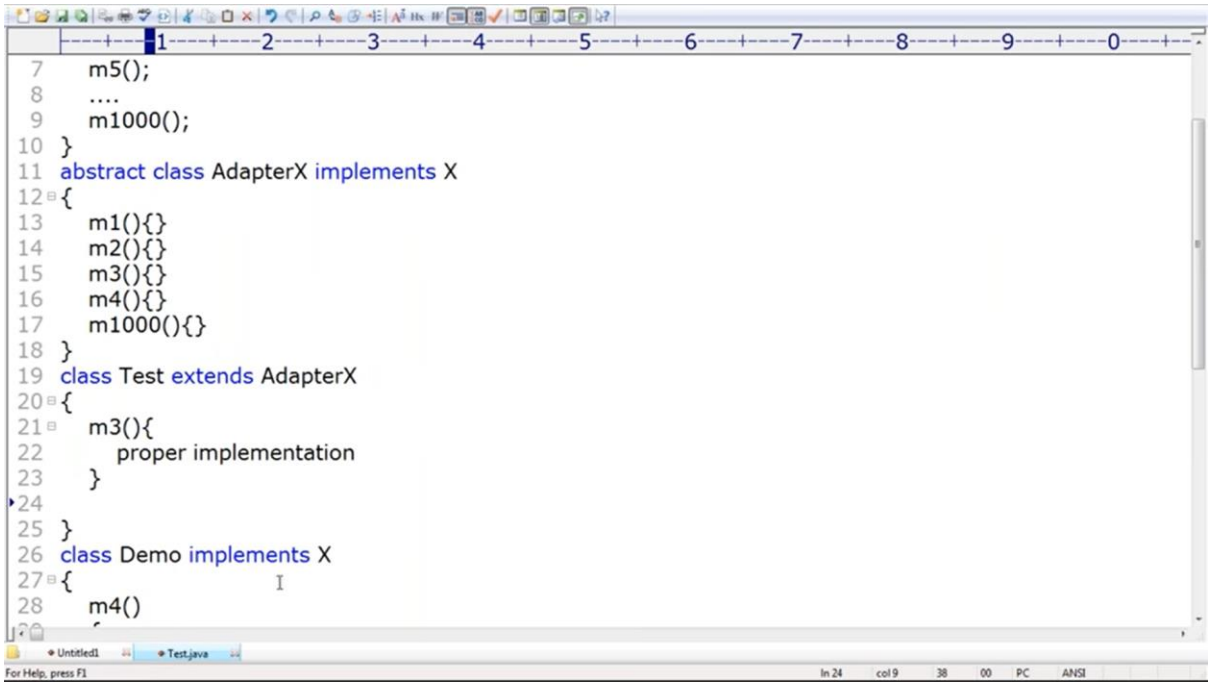
Cant create an object




OCJA 1.8 Java SE 8 Programmer - I (1Z0 - 808) By Durga Sir On 20-02-2018
Press Esc to exit full screen
class Test
{
public void m1(){}
public void m2(){}
public void m3(){}
public void m4(){}
public void m1000(){}
}

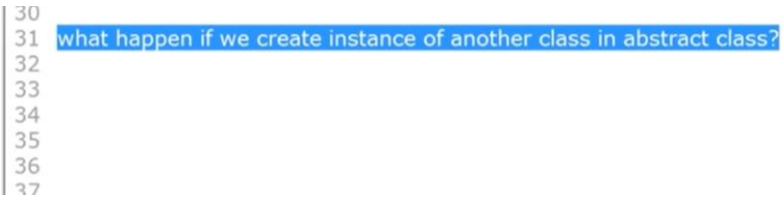

OCJA 1.8 Java SE 8 Programm
New Police Story (HD)New Block
Metlife StoreFront
OfficePass
https://www.youtube.com/watch?v=3s4TQTBdUjY&list=PLd3UqWTnYXOk7SMynJroNUzo5v0RMIF8X&index=31
YouTube IN
Search
abstract:
---
methods and classes but not for variables
abstract method:
---
public abstract void m1();
public abstract void m1(){}

Adapter Class

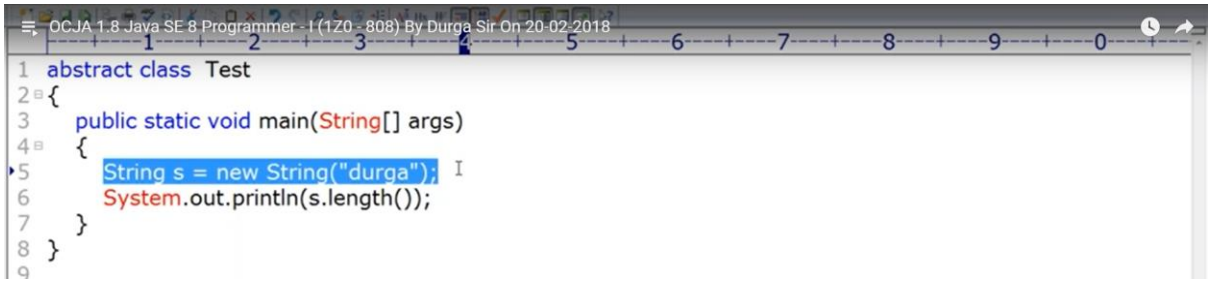


```
    m5();
    ....
    m1000();
}
abstract class AdapterX implements X
{
    m1(){}
    m2(){}
    m3(){}
    m4(){}
    m1000(){}
}
class Test extends AdapterX
{
    m3(){
       proper implementation
    }

}
class Demo implements X
{
    m4()
```

Possible



```
what happen if we create instance of another class in abstract class?
```

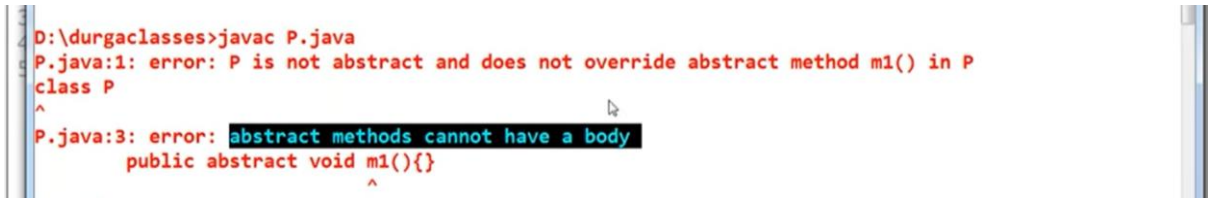



```
abstract class  Test
{
   public static void main(String[] args)
   {
      String s = new String("durga");
      System.out.println(s.length());
   }
}
```

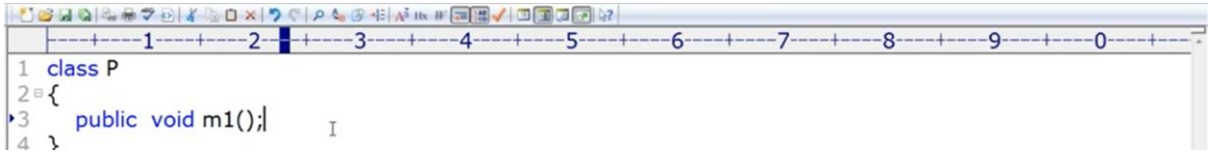
A abstract method cannot be final. A class that contains abstact method cannot be final. Or an abstract class cannot be final

```
abstract vs final:
------------------
1. final method    abstract method
2. final class     abstract class
```

Abstract cannot hv body. CE

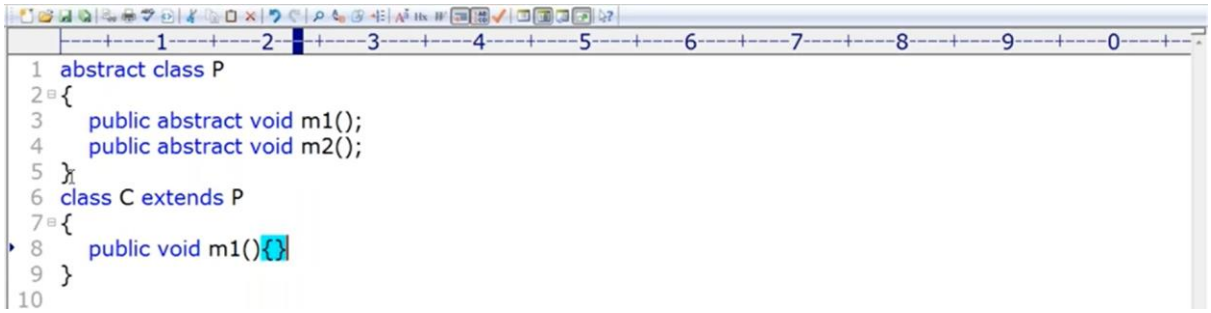


Only absract method can have only dec. Missing method body or declare abstact



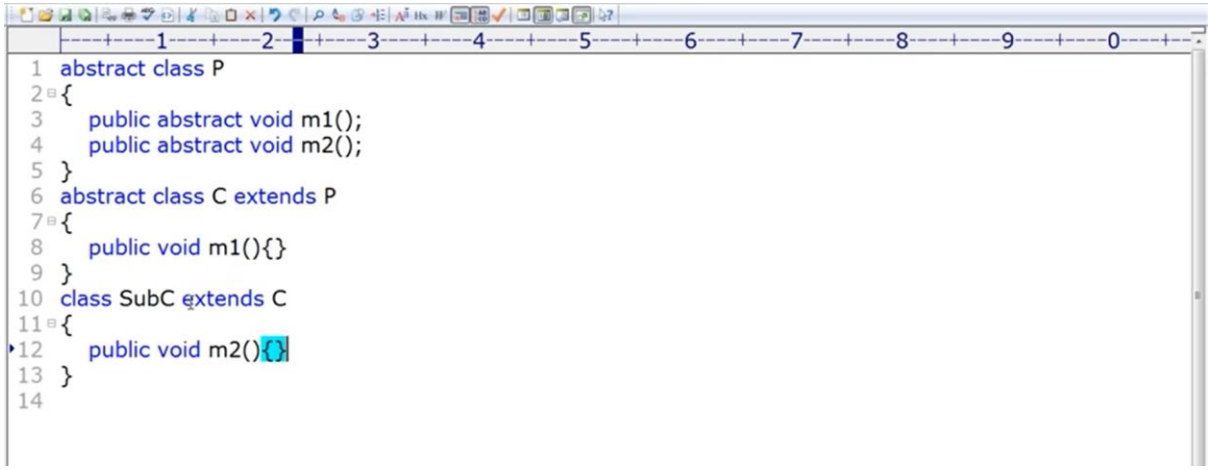
Abstract class only can have absrtact method

All methods in the abstact class should be implemented. If any abstact methods not implemented. CE



Valid.

C is also defined as abstract so if does not hv to implement all methods, SubC is a class it has to implement m2

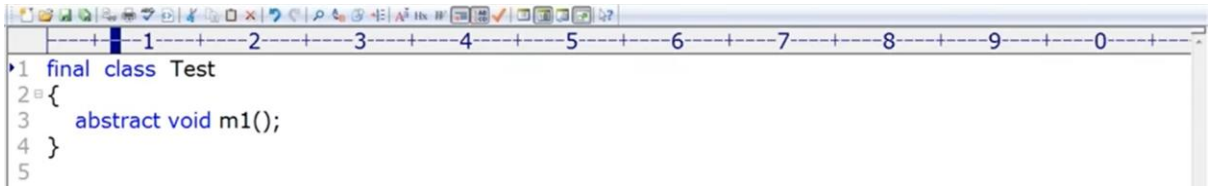


```
1  abstract class P
2  {
3     public abstract void m1();
4     public abstract void m2();
5  }
6  abstract class C extends P
7  {
8     public void m1(){}
9  }
10 class SubC extends C
11 {
12    public void m2(){}
13 }
14
```

3 is invalid and 4 th one is valid

```
39
40 3. final class can contain abstract methods
41 4. abstract class can contain final methods
```

Only an abstract class can contain abstract method



```
1 final class Test
2 {
3    abstract void m1();
4 }
5
```

```
D:\durgaclasses>javac P.java

D:\durgaclasses>javac P.java
P.java:10: error: SubC is not abstract and does not override abstract method m2() in P
class SubC extends C
^
1 error
```

Abstract class can contain final method. This is not a abstact method . And cannot be overriden


```
1 abstract class Test
2 {
3    final void m1(){}
4 }
5
```

StrictFloatingPoint

All floating point in the class should follow IEEE standard. FP implementation differs from platform to platform If u want the same results across platform use StrictFP. Can be applied at class level (both inner and outer class).