Lab-15 Assignments
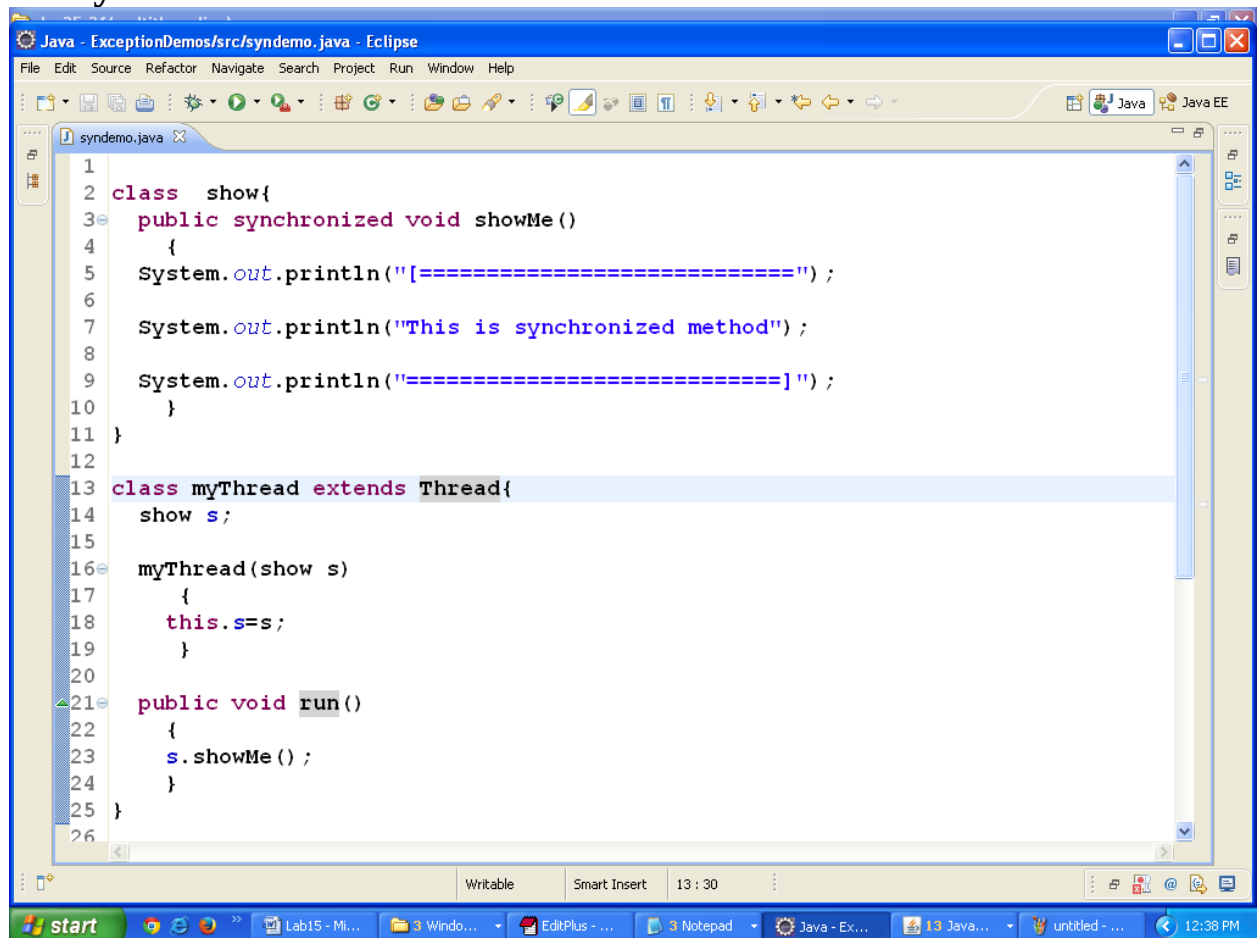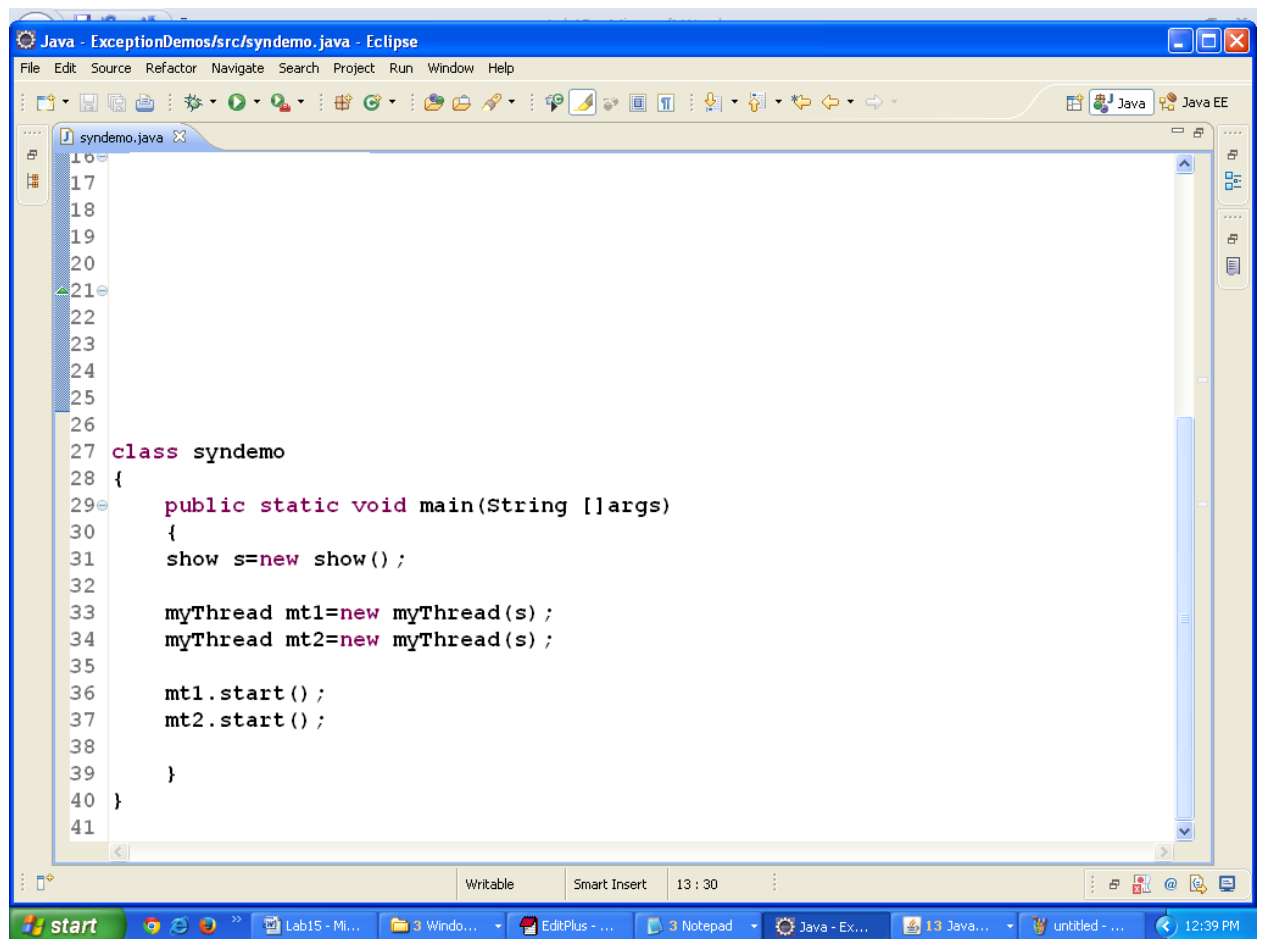## MultiThreading-II
Demo 1: synchronization
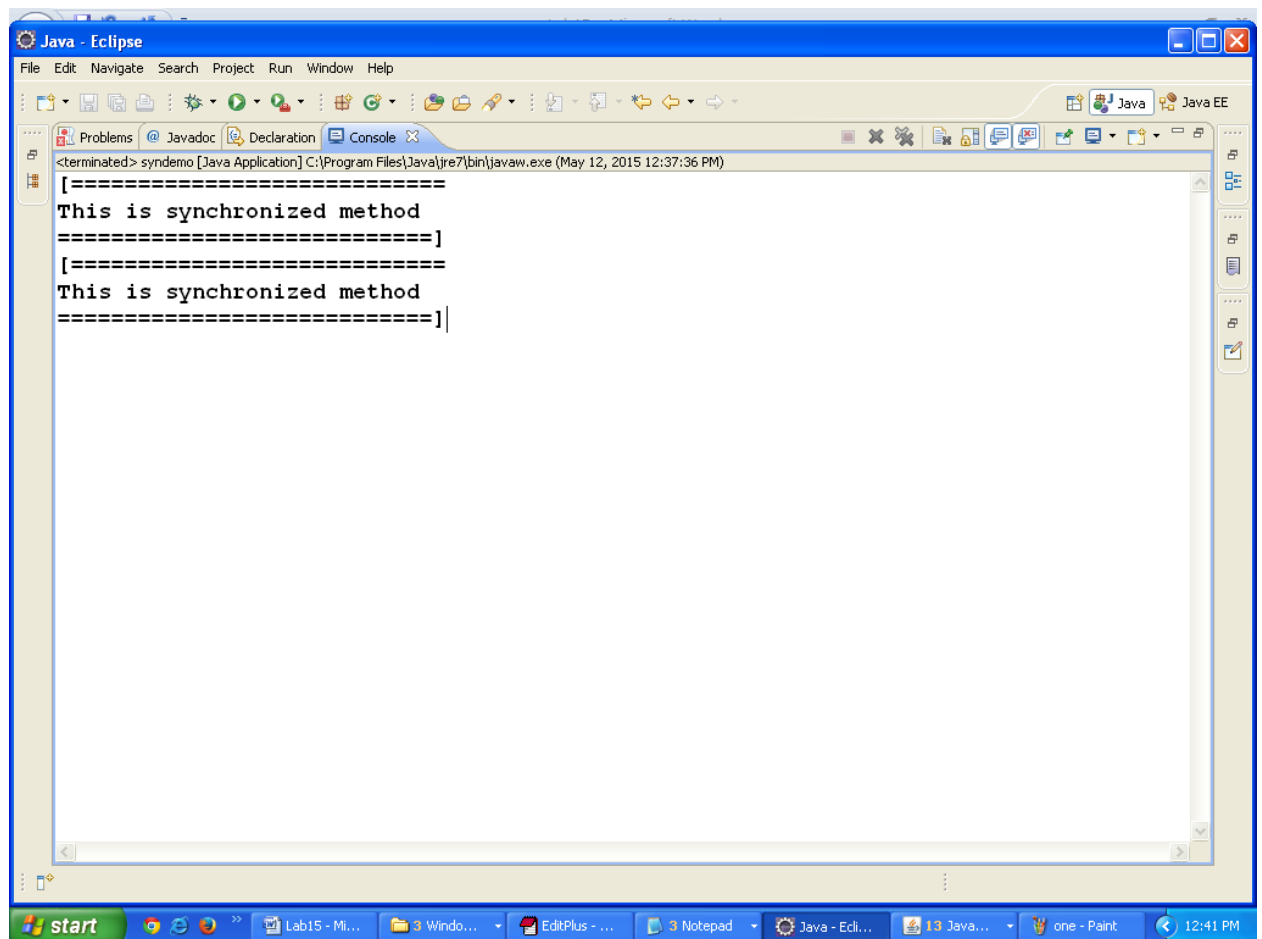


```java
class  show{
  public synchronized void showMe()
     {
   System.out.println("[============================");

   System.out.println("This is synchronized method");

   System.out.println("============================]");
     }
}

class myThread extends Thread{
   show s;

  myThread(show s)
      {
     this.s=s;
      }

  public void run()
     {
     s.showMe();
     }
}
```

public

```
16
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25
26
27  class syndemo
28  {
29      public static void main(String []args)
30      {
31      show s=new show();
32
33      myThread mt1=new myThread(s);
34      myThread mt2=new myThread(s);
35
36      mt1.start();
37      mt2.start();
38
39      }
40  }
41
```

Run As-> Java Application

```
Java - Eclipse
File  Edit  Navigate  Search  Project  Run  Window  Help

Problems  @ Javadoc  Declaration  Console
<terminated> syndemo [Java Application] C:\Program Files\Java\jre7\bin\javaw.exe (May 12, 2015 12:37:36 PM)
[============================
This is synchronized method
============================]
[============================
This is synchronized method
============================]

start    Lab15 - Mi...  3 Windo...  EditPlus - ...  3 Notepad  Java - Ecli...  13 Java...  one - Paint   12:41 PM
```

Assignments To Solve

1. Create a Banking Application simulating concurrent deposit and withdrawal. Use synchronized method for transaction.
   Account Class
    Attributes: acno & balance
   Methods: getter setter methods and toString()

   Method signature
     public synchronized int withdraw(Account acc, int amount)
   {….}

   public synchronized int deposit(Account acc, int amount)
   {…..}

2. Create a Banking Application simulating concurrent deposit and withdrawal. Use synchronized block for transaction

   Method signature

   public int withdraw (Account acc, int amount)
   {
   synchronized (this)
   {…..}
   }

```
public int deposit(Account account, int amount)
{
 synchronized {….}
}
```

3. WAP to move three balls (Use wait(), notify() and notifyAll() of Object class)