3. Write a program in Java to demonstrate synchronization

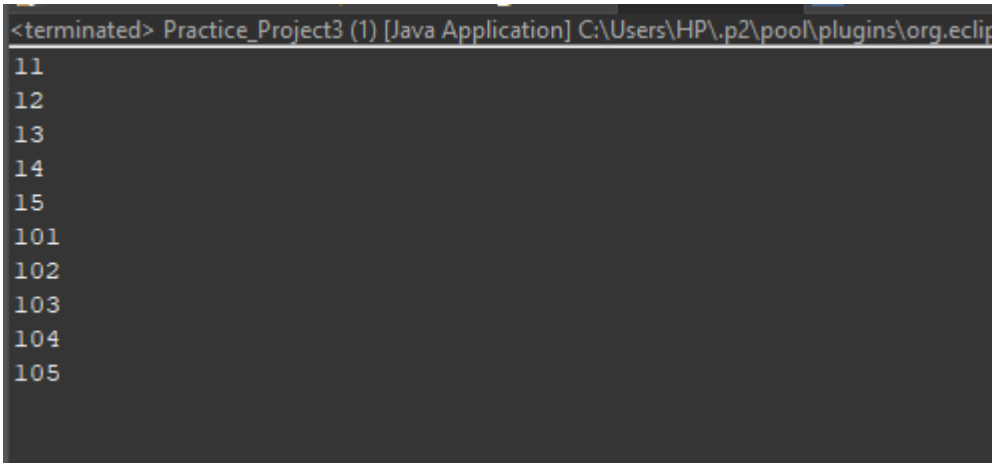
**SOURCE CODE**

```
//demonstrating synchronization
package assistedPracticeProject2;

class Synchronizedmethod
{
 synchronized void display(int n) //display() is synchronized
 {
   for(int i = 1; i <= 5; i++) //iterating 1 to 5
   {
     System.out.println(n+i);   //printing n 5 times
     try
     {
       Thread.sleep(200);  //sleep for 2 miliseconds
     }
    catch(InterruptedException e)
    {
       System.out.println(e); //handle exception
    }   } }
}
class Thread1 extends Thread //thread 1 extending thread
{
            Synchronizedmethod t;
            Thread1(Synchronizedmethod t) //constructor
            {
                        this.t = t;
            }
            public void run()
            {
                        t.display(10);  //passing value 10 to display()
            }
}
 class Thread2 extends Thread //thread 2
{
            Synchronizedmethod t;
            Thread2(Synchronizedmethod t) //constructor
            {
                        this.t = t;
            }
            public void run()
```

```
        {
                t.display(100);  //passing value 100 to display()
        }
}
public class Practice_Project3
{
public static void main(String[] args)
{
        Synchronizedmethod sm = new Synchronizedmethod(); //creating object for synchronized method
        Thread1 t1 = new Thread1(sm); //creating object for thread 1 and passing object of synchronized method
        Thread2 t2 = new Thread2(sm);
   t1.start(); //calling run()
   t2.start();
 }
}
```

**OUTPUT**




**Without synchronization**