```java
import java.util.concurrent.Semaphore;

import java.util.Scanner;

public class readerwriter{

        static Semaphore mutex = new Semaphore (1);

        static Semaphore wrt = new Semaphore (1);

        static int readCount=0;

        static String message ="hello";

        static Scanner sc= new Scanner (System.in);

        static class Reader implements Runnable

        {

                public void run()

                {

                        try

                        {

                                mutex.acquire();

                                readCount++;

                                if(readCount==1)

                                {

                                        wrt.acquire();

                                }

                                mutex.release();

                                System.out.println("Thread "+Thread.currentThread().getName()+"is
Reading :"+message);

                                System.out.println("Thread"+Thread.currentThread().getName() +
"has finished Reading");

                                mutex.acquire();

                                readCount--;

                                if(readCount==0)

                                {

                                        wrt.release();

                                }

                                mutex.release();
```

```java
                }
                catch (InterruptedException e)
                {
                        System.out.println(e.getMessage());
                }
        }


    }
    static class Writer implements Runnable
    {
        public void run()
        {
                try
                {
                        wrt.acquire();
                        message ="Good Morning";
                        System.out.println("Thread"+Thread.currentThread().getName()+"is
waiting:"+message);


                        Thread.sleep(1500);

System.out.println("Thread"+Thread.currentThread().getName()+"has finished Writing:");
                        wrt.release();


        }
        catch (InterruptedException e)
        {
                System.out.println(e.getMessage());
        }
    }
}
public static void main(String [] args) throws Exception
```

```java
{
    Reader read=new Reader();
    Writer write= new Writer();
    Thread r1=new Thread(read);
    r1.setName("Reader1");
    Thread r2= new Thread(read);
    r2.setName("Reader2");
    Thread r3= new Thread(read);
    r3.setName("Reader3");
    Thread w1= new Thread(write);
    w1.setName("Writer1");
    Thread w2= new Thread(write);
    w2.setName("Writer2");
    Thread w3= new Thread(write);
    w3.setName("Writer 3");
    w1.start();
    r1.start();
    w2.start();
    r2.start();
    w3.start();
    r3.start();
}
}
```