

```
package ass4Mutex;
import java.util.concurrent.Semaphore;
```

```
public class ass4Mutex {
```

```
    // max 1 people
```

```
    static Semaphore semaphore = new Semaphore(1);
```

```
    static class MyLockerThread extends Thread {
```

```
        String name = "";
```

```
        MyLockerThread(String name) {
```

```
            this.name = name;
```

```
        }
```

```
        public void run() {
```

```
            try {
```

```
                System.out.println(name + " : acquiring lock...");
```

```
                System.out.println(name + " : available Semaphore permits now: "
                    + semaphore.availablePermits());
```

```
                semaphore.acquire();
```

```
                System.out.println(name + " : got the permit!");
```

```
            } try {
```

```
                for (int i = 1; i <= 5; i++) {
```

```
                    System.out.println(name + " : is performing operation " + i
```

```
                        + ", available Semaphore permits : "
```

```
                        + semaphore.availablePermits());
```

```
                    // sleep 1 second
```

```
                    Thread.sleep(1000);
```

```
                }
```

```
            } finally {
```

```
                // calling release() after a successful acquire()
```

```
                System.out.println(name + " : releasing lock...");
```

```
                semaphore.release();
```

```
                System.out.println(name + " : available Semaphore permits now: "
                    + semaphore.availablePermits());
```

```
            }
```

```
        } catch (InterruptedException e) {
```

```
            e.printStackTrace();
```

```
}  
  
}  
  
}  
  
public static void main(String[] args) {  
  
    System.out.println("Total available Semaphore permits : "  
        + semaphore.availablePermits());  
  
    MyLockerThread t1 = new MyLockerThread("A");  
    t1.start();  
  
    MyLockerThread t2 = new MyLockerThread("B");  
    t2.start();  
  
    MyLockerThread t3 = new MyLockerThread("C");  
    t3.start();  
  
    MyLockerThread t4 = new MyLockerThread("D");  
    t4.start();  
  
    MyLockerThread t5 = new MyLockerThread("E");  
    t5.start();  
  
    MyLockerThread t6 = new MyLockerThread("F");  
    t6.start();  
  
}  
}
```