

SEMÁFOROS EN JAVA

```
class Semaforo{
    protected int valor;
    public Semaforo(int inicial){
        valor = inicial;
    }
    public synchronized void acquire()
        throws InterruptedException {
        while(valor == 0) wait();
        valor--;
    }
    public synchronized void release(){
        valor++;
        notify();
    } }
}
```

```
class Auto extends Thread{
private Semaforo S;
public Auto(String nombre, Semaforo sem){
super(nombre);
S = sem;
start();
}
public void run() {
while(true){
    try{
        S.acquire();
    }catch(InterruptedException ie){}
System.out.println(getName() + " entro al tunel");
    try {
        sleep(2500);
    } catch (InterruptedException e) {
        throw new RuntimeException(e);
    }
System.out.println(getName() + " salio del tunel");
S.release();
}
}
}
```

```
public class Main6 {  
  
    public static void main (String  
args[]) {  
        Semaforo sem=new Semaforo(2);  
        Auto auto[]=new Auto[10];  
        for (int i=0; i<10; i++) {  
            auto[i]=new Auto ("Thread "+i, sem);  
        }  
    }  
}
```