

```
public class MonitorMediumTermScheduler implements IMediumTermScheduler {
    Monitor protect = new Monitor();
    Monitor.ConditionVariable CLmeta = protect.new ConditionVariable();
    int CL;

    public MonitorMediumTermScheduler () {
        System.out.println("Entering constructor" );
        protect.Acquire();
        CL = 0;
        protect.Release();
        System.out.println("Exiting constructor" );
    }

    public void addProcess () {
        System.out.println("Entering addProcess" );
        protect.Acquire();
        while(true){
            //System.out.println("CL is " + CL + " N is " + N + " K is " + K);
            if (CL + K > N) {
                //System.out.println("True if");
                CLmeta.Wait();
                continue;
            }
            else{
                //System.out.println("False if");
                CL = CL + K;
                CLmeta.Signal();
                break;
            }
        }
        protect.Release();
        System.out.println("Exiting add proc" );
    }

    public void removeProcess () {
        System.out.println("Entering remove proc" );
        protect.Acquire();
        while(true){
            if((CL - K) < 0){
                System.out.println("Less than 0" );
                CLmeta.Wait();
                continue;
            }
            else{
                System.out.println("Not less" );
                CL = CL - K;
                break;
            }
        }

        CLmeta.Signal();
        protect.Release();
        System.out.println("Exiting remove proc" );
    }
}
```