Aquino, Kurt Neil CSC611M

Choy, Matthew Seaver AdvanOS

Matias, Angelo

Yu Galan, Stanley

Homework

Critical Section Problems Using Monitors

1. **Critical Section**

public synchronized void criticalSection() {

doProcess();

}

1. **Barrier Gate**

public synchronized void BarrierGate(){

waitingCount=0;

doPreProcess();

if(waitingCount < 2) {

waitingCount++;

wait();

} else {

notifyAll();

waitingCount = 0;

}

doPostProcess();

}

1. **Readers and Writers**

public synchronized void ReaderWriter() {

int readers = 0;

boolean writing;

public void tryRead() {

while(writing) {

wait();

}

readers++;

}

public void endRead() {

readers--;

if(readers == 0)

notifyAll();

}

public void tryWrite() {

while(readers > 0 || writing){

wait();

}

writer = true;

}

public void endWrite(){

writer = false;

notifyAll()

}

}