For the **Lab Session 5**

Lab 6 exercises:

App 2 only.

Lab 7 exercises:

App1 and App2:

A) Using *ReentrantLock* class

B) Using *Semaphore* class

Note: test the synchronization represented by T8 using the *CyclicBarrier* and then test the use of *CoundownLatch* instead. What can be observed?

App3: The *wait*()/*notify*() methods will be used for T6-P6-T7 and T6-P10-T12 synchronizations. The final synchronization from T11 will be implemented using the *CountDownLatch* class.

For CountdownLatch examples see: <https://docs.oracle.com/javase/8/docs/api/index.html?java/util/concurrent/CountDownLatch.html>

**Note:** Don’t forget to draw the statemachine, sequence, and class diagrams for Apps (1,2, and 3).

App5: Draw the Petri-Net diagram for the provided statemachine diagram.