For the **Lab Session 5**

**Lab 7 exercises:**

**App1 :** Using *Semaphore* class and CyclicBarrier for T8

**App2:** Using *ReentrantLock* class and CountdownLatch for T8

What is the difference between the CyclicBarrier and Contdownlatch in execution? What did you observe?

**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 and sequence diagrams for Apps (1,2, and 3).

**App5:** Draw the Petri-Net diagram for the provided statemachine diagram using a Petri Net drawing tool (you can use PetriPipe in Tools folder)