The algorithm can be modeled by a Petri net where each program location (i.e. line of code of a process) is associated to a place, and where the shared binary variables

x and y are associated to two places each.

1. Draw a Petri net that models the algorithm (you can use Pipe if you want).
2. Optional: Complete the given LoLA file and verify whether (i) the algorithm is deadlock-free; (ii) a process can be at multiple program locations at the same time; (iii) both processes can reach their critical sections simultaneously.