1. There are race conditions on the c array because UpdateC3 could be updating the c array at the same time as UpdateC1 or UpdateC2. So there are four possible outputs: (1) a a (c array 0 0) (2) a b (c array 0 1) (3) b a (c array 1 0) (4) b b (c array 1 1)
2. There are race conditions on the c array because two of the three created threads could be updating the c array at the same time. So there are four possible outputs: (1) a a (c array 0 0) (2) a b (c array 0 1) (3) b a (c array 1 0) (4) b b (c array 1 1)