

Lab 10 exercise 03

Implement a C program that simulates two clients that perform concurrent bank transactions on accounts **1** and **2**.

The main thread creates two threads, which are owners of both accounts. Initially the total money in the two accounts is 100000 Euro.

Thread **i** loops sleeping for a random interval (**0-8**) of seconds, then it reads its current balance in account **i**, and after a random interval (**0-4**) of seconds, it decides to move a random amount of money **m**, (**1000-5000**) Euro, from account **i** to account **3-i**.

Of course, the transaction implies that the balance of account **i** decreases by **m**, and the balance of account **3-i** increases by **m**, the read and write operations on the same account must be performed in mutual exclusion.

Write a single code for the two threads.

Analyze your solution, and comment the possibility of deadlock.