CO324
Lab 3: Synchronisation and Deadlocks

The code provided implements a simple client-server banking application. This version of the code implements just one operation transferring funds between two bank accounts. Further details are provided in the comments within the code.

1. Study the Account class carefully and answer the following:
   a. Describe a data race present in this class.
   b. Describe a race condition that is present in this class.
   c. Why is the constructor in a synchronized block?
   d. Which methods require synchronisation to avoid these problems?

2.

   a. Fix the problems identified in Q1 by adding proper synchronisation.
   b. Check whether the synchronisation you added can cause starvation. Explain why.
   c. Check whether the synchronisation you added can cause deadlock. If so, describe the deadlock scenario and how it can be avoided.