

Worksheet #28: use of tryLock()

Name: _____

Netid: _____

Extend the `transferFunds()` method from Lecture 26 (shown below) to use j.u.c. locks with `tryLock()` instead of `synchronized`, and to return a boolean value --- true if it succeeds in obtaining both locks and performing the transfer, and false otherwise. Assume that each `Account` object contains a reference to a dedicated `ReentrantLock` object. Sketch your answer below using pseudocode. Can you create a deadlock with multiple calls to `transferFunds()` in parallel?

```
1. public void transferFunds(Account from, Account to, int
   amount) {
2.     synchronized (from) {
3.         synchronized (to) {
4.             from.subtractFromBalance (amount) ;
5.             to.addToBalance (amount) ;
6.         }
7.     }
8. }
```

