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Transactional Programming

First STM

My implementation of the software transactional memory compiles and runs. It occasionally, however, does not maintain the correct amount of money across all accounts, meaning it leaks money in or out. It is always a small difference. I believe this is the cause of my commit not working properly and allowing transactions to commit when they should not. I have tried incrementing the version number differently but that causes the program to spin forever. After looking in gdb, the program gets caught up in pthread\_join. This shows that commit is not working as the program will never exit and successfully commit. So my results below and the code submitted represent my program with minimal money leaks. My disjoint access implementation works perfectly and those results are below as well.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **1000000** | **1000** | **1000000 disjoint** |
| **1 Thread** | *10163764487* | *18986260832* | *9657113612* |
| **2 Thread** | *5150047091* | *11970552227* | *5027802844* |
| **4 Thread** | *2646235622* | *10656977694* | *2554466505* |