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Project = PA4

Class = CS457

**CHANGELOG:**

* Commit function
* Transaction function
* Updated update function

**IMPLEMENTATION:**

Commit Function = Update commit.txt file with boolean value, delete inTrans.txt to free

Transaction. Update values after releasing transaction.

Transaction Function = Create commit.txt to keep track of commit.

**COMPILE:**

Use the provided make file and type “make”.

To run do ./main < PA4\_test.sql or ./main and test two terminals separately

**DOCUMENTATION:**

Implementation for this project 4 can be split up into two main sections: Commit and Update. In a way, this project was the shortest of the four as it focuses mainly on flags. The main difficulty was finding a way that worked outside of using threads and so I relied on .txt files and flags to maintain this. Instead of updated the entire update function, I had also just added a “second part” to it to handle transactions as the user may not want to have transactions every time.

To begin transaction, a flag is kept track of internally as well as a text file to keep track of a commit. In which it is tied into the update function in which it immediately checks for the transactflag. Should this flag be false, update normally. If true, verify the name of the file in the inTrans.txt file is locked. Should the file be locked, save the command however change the error flag to signal an abort. Or if there is no file name in the inTrans.txt, update it with the current file name and save the command. This should prevent two users from modifying the file at the same time.

Following, once the commit command is called it will check for the errorflag to determine if it the transaction will be an abort or to commit. It will then update the commit.txt file with the Boolean true to signify that the update has been committed properly and delete the inTrans.txt file to free the transaction. Here it will parse the command that was saved from earlier to update the values. It is separate from the update function because due to the case of transaction and will not require the user to put the file in transaction if not desired.