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CS 457

Project 4

Design Document

This program is the last iteration of an SQL type database design in Python. The difference between this program and the last three is a transaction block implementation.

The new commands are “begin transaction” and “commit”. Transactions begin when “begin transaction” is executed. A lock is enabled, meaning that table manipulation can only be executed from one machine. If a second machine tries to also manipulate the table, an error saying “Error: Table <table_name> is locked!” The table will be unlocked when the “commit” command is entered.

To ensure that commits do not happen until the “commit” command is entered, commands that modify tables create table copies named <table_name>.new.txt. When “commit” is executed, the new table replaces the old table.

I should note that I added a “.exit” line to the test script. The program works fine except for an EOF error at the very end.