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tread.sql -> runs at isolation level READ ONLY, as it only performs a READ/SELECT and therefore cannot corrupt the database in any way.

twrite.sql -> runs at isolation level READ COMMITTED, as there's just one update query

twrite2.sql -> runs at isolation level SERIALIZABLE, as there are multiple update queries and they all need to read from one snapshot of data

Justification for twrite.sql running at READ COMMITTED

If twrite.sql was running at isolation level read,

| twrite2.sql | twrite.sql |
|--|---|
| UPDATE POSITION SET SALARY = 1.1*SALARY WHERE P# = &1; | |
| | UPDATE POSITION SET SALARY = SALARY + 10 WHERE P# = &1; This query works on uncommitted data from the previous query (twrite2.sql query 1), corrupting the database |
| UPDATE POSITION SET SALARY = (SELECT SALARY FROM POSITION WHERE P# = &1) WHERE P# = &2; | |

Justification for twrite2.sql running at SERIALIZABLE

If twrite2.sql was running at isolation level READ COMMITTED,

| twrite2.sql | twrite.sql |
|--|--|
| UPDATE POSITION SET SALARY = 1.1*SALARY WHERE P# = &1; | |
| | UPDATE POSITION SET SALARY = SALARY + 10 WHERE P# = &1; |
| UPDATE POSITION SET SALARY = (SELECT SALARY FROM POSITION WHERE P# = &1) WHERE P# = &2; This query would work on the result of twrite.sql corrupting the database if it wasn't SERIALIZABLE | |