Database Tuning – Assignment 6

Concurrency Tuning

Group Name (e.g. A1, B5, B3)
Lastname1 Firstname1, StudentID1
Lastname2 Firstname2, StudentID2
Lastname3 Firstname3, StudentID3

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Notes:

- You will need to run transactions concurrently using threads in Java. See `http://dbresearch.uni-salzburg.at/teaching/2016ws/dbt/account.zip` for an example.

Task 1

Read Committed

Throughput and correctness for solution (a) with serialization level `READ COMMITTED`.

#Concurrent Transactions	Throughput [transactions/sec]	Correctness
1		
2		
3		
4		
5		

Serializable

Throughput and correctness for solution (a) with serialization level `SERIALIZABLE`.

#Concurrent Transactions	Throughput [transactions/sec]	Correctness
1		
2		
3		
4		
5		

Task 2

Read Committed

Throughput and correctness for solution (b) with serialization level `READ COMMITTED`.

#Concurrent Transactions	Throughput [transactions/sec]	Correctness
1		
2		
3		
4		
5		

Serializable

Throughput and correctness for solution (b) with serialization level `SERIALIZABLE`.

#Concurrent Transactions	Throughput [transactions/sec]	Correctness
1		
2		
3		
4		
5		

Task 3: Discussion

Discuss the outcome and explain the difference between the isolation levels in PostgreSQL with respect to your experiment.

Explain **with your own words** how PostgreSQL deals with updates in the different isolation levels, within a transaction and within a single SQL command. Explicitly explain why you got the experimental results of Task 1 and Task 2.

Task 1

Discuss outcome of task 1 here.

Task 2

Discuss outcome of task 2 here.

Time in hours per person: **XXX**

Important: Reference your information sources!