

MK	:	DSAD (PASTI)
Week	:	06
Session	:	02
Topic	:	Transaction & concurrency control
Due	:	21 March 2014, 17.30.

Make sure to:

- ✓ answer the problem in short and clear statements.
- ✓ use the same paper size.
- ✓ no printing but hand writing.
- ✓ collect in time.

You may go to the library during the practical session.

Problems:

1. ACID are the characteristics of transaction. Give a clear explanation of them and put an understandable example for each!
2. When a transaction is aborted, we have said that the world is restored to its previous state, as though the transaction had never happened. Well, we lied. Give an example where resetting the world is impossible.
3. When there is more than one independent processes run simultaneously, a concurrent access to a certain resource is possible to happen. There are at least four major problem when concurrency occurs: lost update, dirty read, non-repeatable read and phantom read. Explain in what condition those problems may raised, put some drawing to clearer your explanation!
4. What is deadlock actually is? And why it is a bad thing? Give your example that shows deadlock is 'the bad guy'.
5. There are two things that we can do to deal with deadlock, detect it or prevent it. Give your explanation what is the benefits and drawbacks of those two option! To be more readable, put your comparison in a table.

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