CSE 4331/5331 Data Models and Implementation
Module II Summary & Test details

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Test 2 Details

- November 14, 2023 (Tuesday) during class time for all sections
  - I usually make the paper for 65 mins; you will have 80 mins (entire class period)
  - You should not run out of time if you keep your answers short
- ~~If you need to take online for a valid reason, let me know immediately.~~
  - ~~Will do the whole test/exam on separate sheets of paper, scan, and upload to Canvas (will be given extra 10 mins for this)~~
  - ~~Make sure you put your id or name, page number on all sheets~~
- ~~Make sure to put question and sub-question numbers clearly for each answer~~
  - ~~Make sure your answers are for the question asked~~

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Test 2 Details

- ~~Make sure you have a good pdf scanner (do not upload images)~~
  - ~~Bundle them in sequence of page numbers~~
  - ~~Upload ONE zipped file (practice before)~~
  - ~~DO NOT upload scratch sheets (ONLY final answer)~~
  - ~~Clarifications NOT POSSIBLE during online test~~
    - ~~Therefore, write any assumptions clearly as part of the answer sheet~~
- ~~Make sure your answers are legible and easy to read~~
  - ~~Will show some good and bad examples!~~
- ~~For delay beyond 10 minutes of uploading, there will be a penalty~~
  - ~~Of 5 points every 2 minutes~~
  - ~~Uploaded timestamp will be used~~
- ~~I will make the practice test available so you can practice scanning and upload~~
  - ~~Late upload penalty will be strictly enforced!~~

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Material for Test 2 includes

- Concurrency control
  - Serializability (different flavors)
  - 2PL, Strict 2PL, lock upgrades, and what sequences can produce deadlocks
  - Various issues such as dynamic databases, convoy phenomenon, hotspots, Halloween problem
  - Project 2 implementation
- Recovery
  - alternatives
  - ARIES algorithm
- Index locking
  - Read from the book and go over my slides
- Common sense

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Test 2 (more information)

- Will be a collection of short answer questions, working out small problems, intuition behind usage etc. (very similar to test 1)
  - True/false questions with justification
  - **Read questions carefully**; consider points allocation for the answer size
    - One or more questions on serializability (serializability, conflict serializability, 2PL, ST2PL, recoverability, cascading aborts)
    - One question on index locks
    - One or more questions of recovery (WAL, Force-at-commit, checkpointing, workout analysis, redo and undo phased for a given log)
- Point distribution for each sub-topic may vary
- Points will be given for the approach and logic
  - Small numerical errors maybe ignored
- short answer questions on your conceptual understanding will be asked.

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Thank You !!!

For more information visit:
http://itlab.uta.edu

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