CS310 - Advanced Data Structures and Algorithms

Final exam review

December 13, 2021
Announcement

- The final exam will take place on Wednesday, Dec. 22, in this classroom at 6:30-9:30PM.
- Weight – 40% of your final grade.
- If you can’t make it for a really good (documented) reason – contact me ASAP for a make-up exam.
- You have to pass the final (≥ 40) to get a passing grade in the course.
- Five questions, answer on paper, even if code is required.
- If you use the back side of the paper and want me to read it, please state it clearly.
- Write clearly or you will have to read it to me in person (I mean it and I have done it!).
- No cursive please.
Final Exam

- You can bring the book, class notes, hw’s, pa’s, solutions and anything written or printed you think may help you.
- Do not bring computers, cell phones, ipods, friends or any other electronic or human means of communications.
- You can bring a simple calculator and a simple wrist watch or alarm clock. I will project the time on the screen for your convenience.
- Work should be strictly individual.
- Bags should be placed at the front of the class. Turn off or silence your cell phone beforehand (!!!).
Anything we learned and was covered in hw4-5 and pa2-3 including but not limited to:

- Pre-requisites and midterm material – as background material. I will assume knowledge but will not ask questions per-se.
- Graph greedy algorithms – Minimum spanning trees, Dijkstra’s algorithm, Bellman-Ford’s algorithm.
- Greedy algorithms.
- Dynamic programming.
- Compression and coding.
- Network flow.
General Guidelines

- RTFQ, then ATFQ (read the fabulous question, then answer the fabulous question).
- Explain your answers but do so briefly – rarely should you need more than one short paragraph. Remember that excessive writing usually covers for lack of knowledge.
- If you have to write code – I will care more about the algorithm than the Java syntax (but make it look like legit Java).
- Remember – I care mostly about you understanding the material. There’s nothing in the exam that you haven’t seen before in one form or another.