

CS 758/858 Homework 9: DP
for Thu Oct 1 2026

These are some suggestions to help you prepare for quiz 9.

1. Exercise 14.1–2 from CLRS.
2. Exercise 14.1–3 from CLRS.
3. Exercise 14.3–5 from CLRS.
4. The police department has an analyst who maps the locations of incoming 911 calls. Then, after a call has been serviced, it is removed from the database. Given this stream of insertions and deletions over time, describe a method for tracking the calls such that, at any moment, given a min and max latitude and min and max longitude, you can quickly return a list of those calls that fall within the area of interest. Prove the time complexity of insertion, deletion, and query operations.