Exercise Set 4

Prepared by Anil and Neeraj

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Heaps and Priority Queues

R-8.2, R-8.11, R-8.13, R-8.16, R-8.17, C-8.4, C-8.5, C-8.16, C-8.17

Hashing

R-9.5

Extra Question

A hash table of size M stores N integer keys.Collisions are handled by chaining and the hash function is $h(K) = K \mod M$.

1. What is the worst-case search time? Give an example of a set of keys that achieves the worst-case search time.

2. Would you use this hash table for a time-critical application (e.g., air-traffic control)?