University of Waterloo
CS240 Fall 2017
Tutorial 6

Monday, October 30

Problem 1 - Linear Probing

Consider the following hash function $h(k) = k \bmod 7$. Insert the following entries into a hash table of size 7 using linear probing:

$$14, 10, 20, 13, 0, 8$$

Afterwards, show the resulting hash table after deleting 14. Finally, show the result of searching for 0.

Problem 2 - Double Hashing

Repeat problem 1 using double hashing with
$h_1(k) = k \bmod 7$ and $h_2(k) = (k \bmod 5) + 1$.

Problem 3 - Cuckoo Hashing

Repeat problem 1 using cuckoo hashing with
$h_1(k) = k \bmod 7$ and $h_2(k) = (k \bmod 5) + 1$.