

Hashing

CSC263 Week 5 Lectures 1-2, Week 6 Lecture 1

Definitions

Universe of keys U set of all possible keys

Hash table T = array with m positions

each location called a slot or bucket

Hash Function

$$h: U \rightarrow \{0, 1, 2, \dots, m-1\}$$

maps key to array position to
access key k (or its data), examine
 $T[h(k)]$

Collision

$$x \neq y \text{ with } h(x) = h(y)$$

Since $|U| > m$, unavoidable

(pigeonhole principle)