Fundamentals of
Data Structures using C

Open Addressing

B.Bhuvaneswaran, AP (SG) / CSE

9791519152

bhuvaneswaran@rajalakshmi.edu.in

RAJALAKSHMI
ENGINEERING COLLEGE

Introduction

- Separate chaining hashing has the disadvantage of requiring pointers.
- This tends to slow the algorithm down a bit because of the time required to allocate new cells, and also essentially requires the implementation of a second data structure.
- Open addressing hashing is an alternative to resolving collisions with linked lists.
- In an open addressing hashing system, if a collision occurs, alternate cells are tried until an empty cell is found.

Introduction

- More formally, cells $h_0(X)$, $h_1(X)$, $h_2(X)$, . . . are tried in succession where

$$h_i(X) = (\text{Hash}(X) + F(i)) \bmod \text{TableSize}$$

- with $F(0) = 0$.

Techniques for Collision Resolution

- Linear Probing
- Quadratic Probing
- Double Hashing

Queries?

Thank You!