

CS350: Data Structures Class Notes

Class 10: Monday, September 22, 2008

Stack and Linear Data Structures

Linear Structures include stacks, lists, queues, dequeues, arrays

Stacks—LIFO vs. Queue—FIFO

Terms: pushdown stack, top, base (or bottom)

Examples: tasks and interruptions, plates in cafeteria, back button on browsers, call stack on computer (subroutine calls)

ADT for Stack

Stack() → a stack (creator)

push(item) (mutator)

pop() → item (mutator)

peek() → item (accessor)

isEmpty() → True, False

size() → Natural number

Implementations: see text

Balance paren's example

Began Infix, Prefix, Postfix notations

Homework for Wednesday: Modify code on 61 to work with a program in a file.