Today - Lecture #19 - CS163

1) Practice
2) Remember: (Lecture #18 is the prep for final)

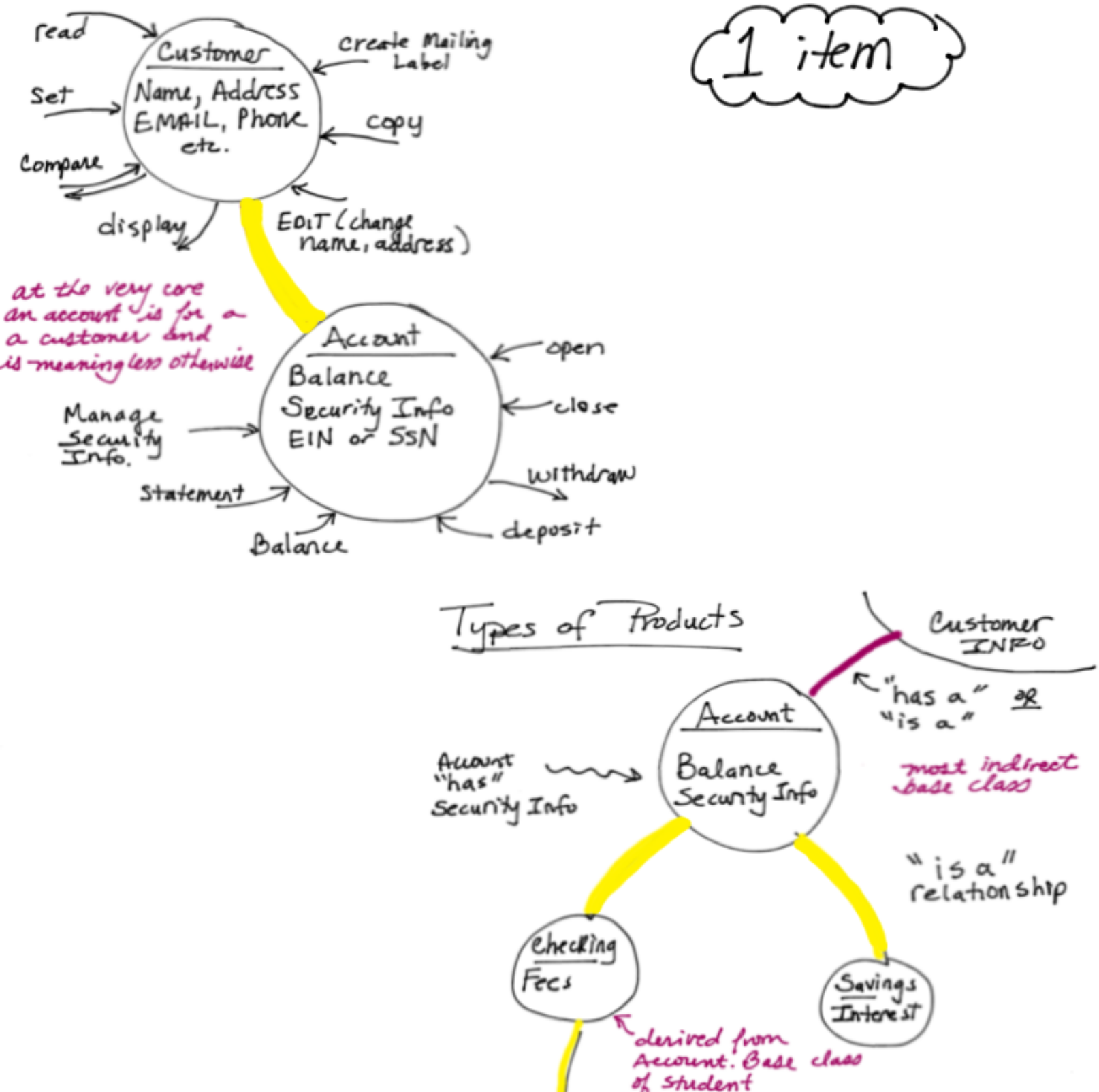
Rules

- closed book, closed notes
- 1 hr 50 mins
- bring picture ID

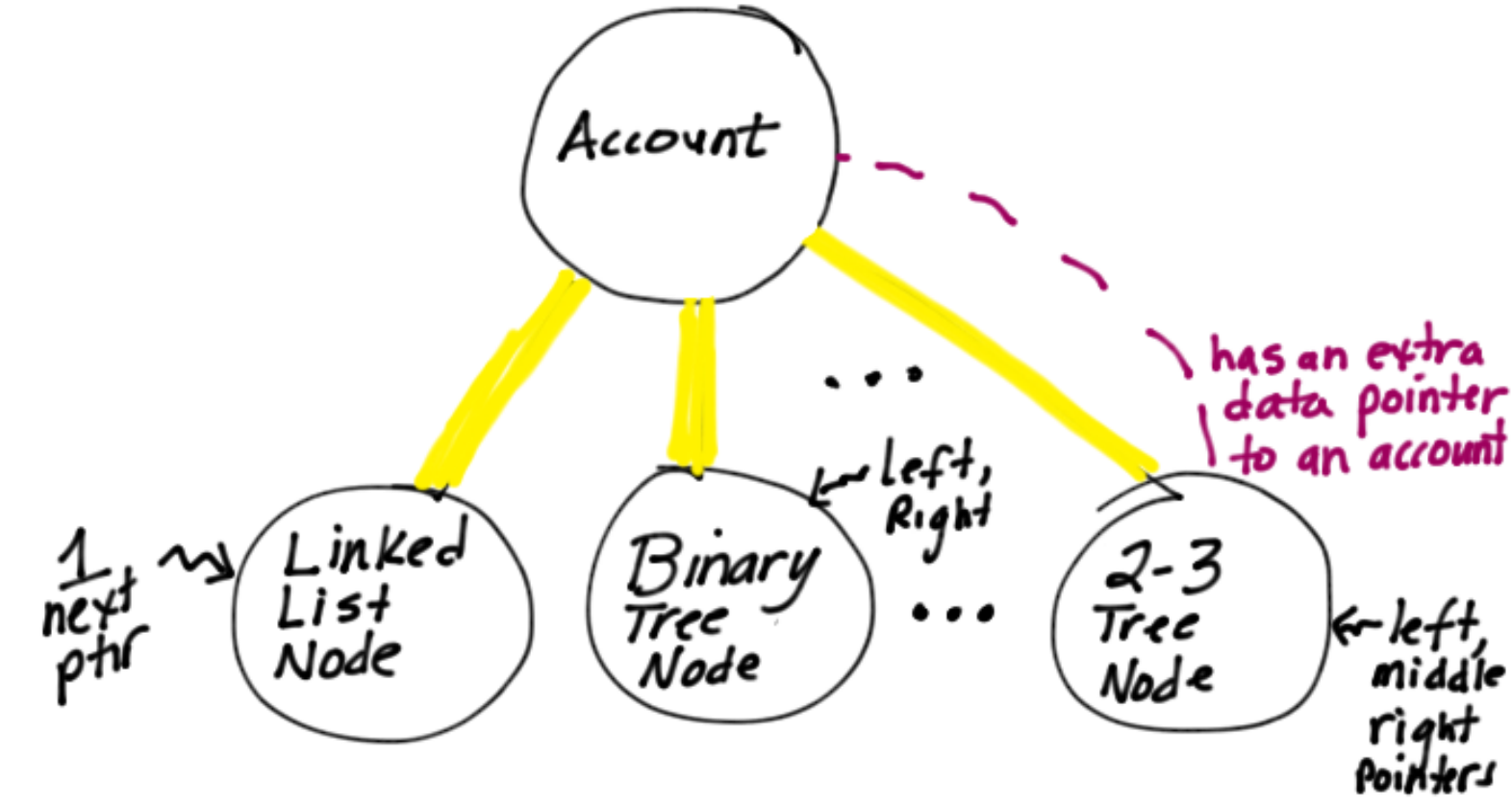
When?

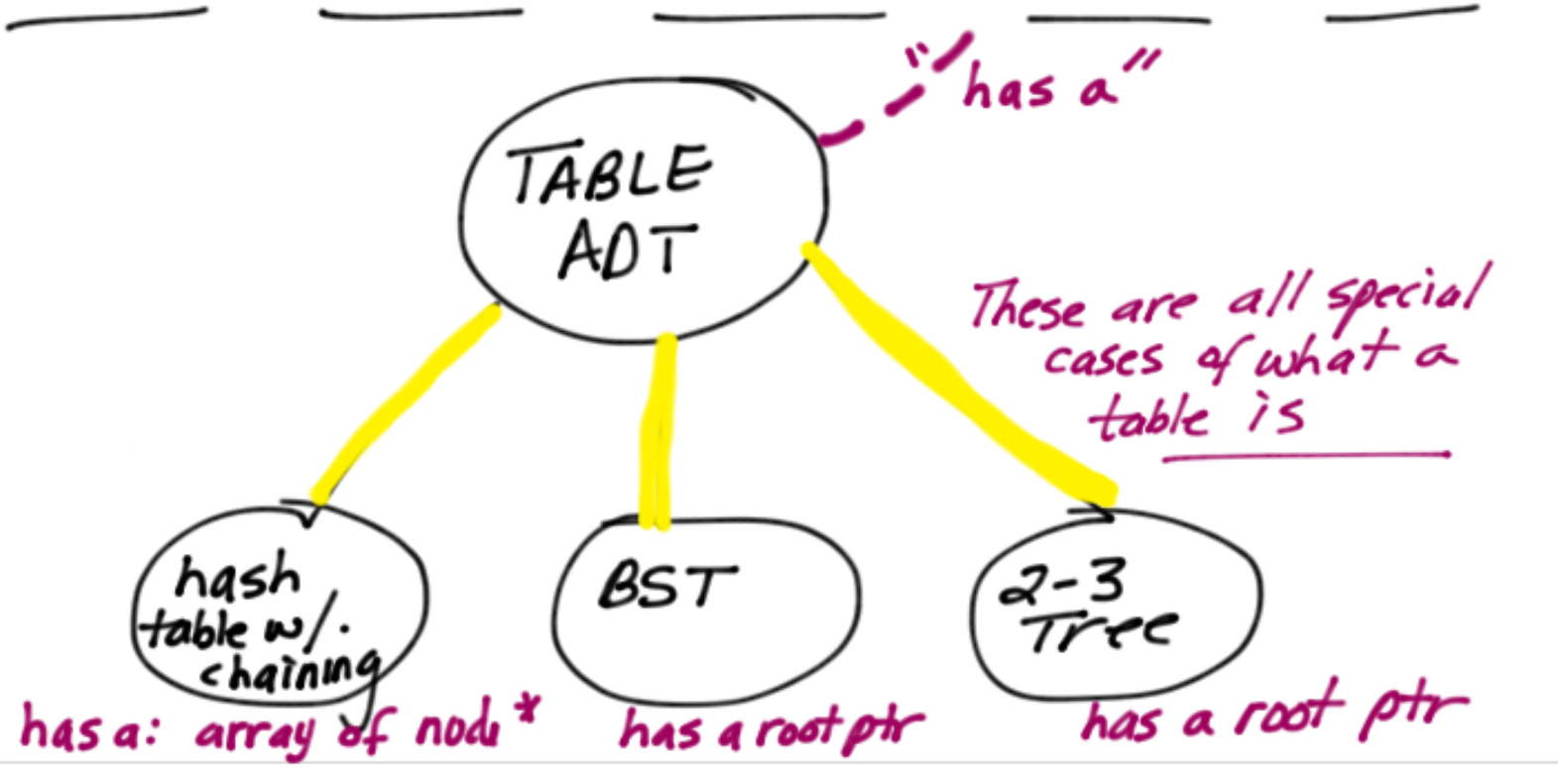
Requests for Review

1) BST & Graph implementation
2) OOP & data abstraction
    * how to handle multiple data structures referencing the same data


1 item
read
Customer
Name, Address
EMAIL, Phone
etc.
create Mailing Label
Set
copy
Compare
display
EDIT (change name, address)
at the very core an account is for a a customer and is meaningless otherwise
Account
Balance
Security Info
EIN or SSN
open
close
Manage Security Info.
withdraw
Statement
deposit
Balance
Types of Products
Customer INFO
"has a" or "is a"
Account
Balance
Security Info
Account "has" Security Info
most indirect base class
"is a" relationship
Checking
Fees
Savings
Interest
derived from Account. Base class of Student
Student
Incentives
Base class == Parent == Superclass
Derived class == child == Subclass

Many items - using data abstraction





Review

1) Add/Remove at the end of a LLL or DLL
2) Dequeue from a LLL or CLL
3) Pop from a LLL
4) Deallocate a hash table – can you do this using pointer arithmetic
5) Hash Tables – creation, traversal, insertion, deletion
6) BST – homework #3
   - make a copy (duplicate) of a BST
   - Display only nodes with 1 child
   - count the number of nodes in a BST
   - FIND the inorder successor
   - Remove the largest item
   - Display the two largest items
7) Recursion ** critical!