Things you should know!

- Pick up an ICI sheet!
- Today’s attendance is… a Sign-In Sheet!
- We have office hours by appointment!
  - We can do mock interviews with you
  - Message us for tips if you have an interview coming up
- Didn’t find your dream job at the career fair?
  - Check out these research opportunities
  - https://www.nsf.gov/crssprgm/reu/reu_search.jsp
- Midterms are the week of March 12th (2 weeks away)

HW Grading

- Reminders
  - Make sure you show us your test cases at the end!
    - Leetcode -> view details
  - Write your time and space complexities in your comments
  - Explanations for partial credit

Midterms:

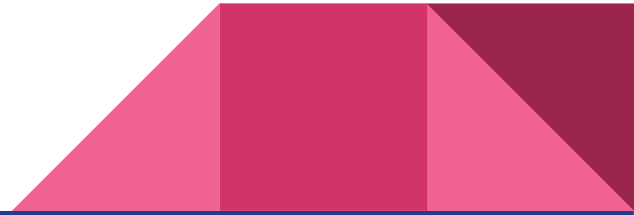
- Format
  - 30 minute technical phone interview
    - 1 Behavioral Question
    - 1 Technical Question
    - Google Docs/Google Hangouts
- Sign ups
  - https://docs.google.com/spreadsheets/d/1nfIKfa_aUeoJcE8G25sOVyDt7pUhoxvc3fj4RmN072s/edit?usp=sharing
  - Once 9 people have signed up for an instructor, all of that instructor's time slots are closed
    - Check before you sign up! Otherwise we will look who made changes last and delete them
- Rubric
  - https://docs.google.com/document/d/1zq2NP-nnhlvCGiaM[illegible]DvxbYj6VSY[illegible]NNeUbc0/edit?usp=sharing

Week 6!

CMSC389O: The Coding Interview

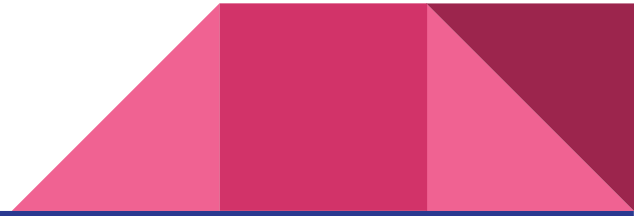
Today

- Linked Lists
- In Class Interviews (ICI)

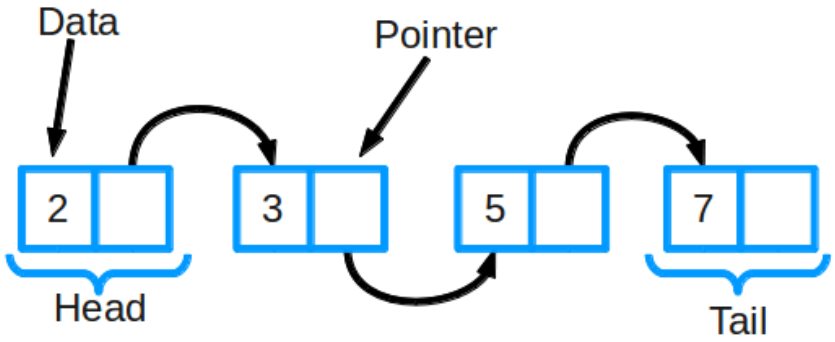


Linked Lists

What are they?



Linked Lists



What are they?

- Reference to head node
- Nodes contain data and reference to next node
- Last node’s next node is null

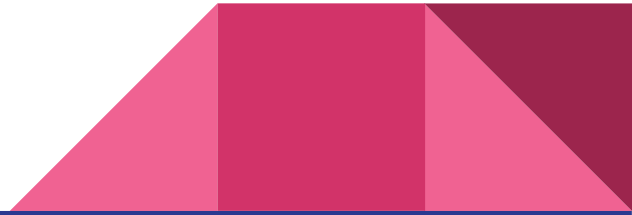
Complexities: Access

Singly Linked List

?

Doubly Linked List

?



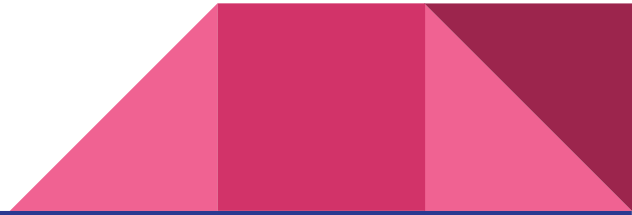
Complexities: Access

Singly Linked List

O(n)

Doubly Linked List

O(n)



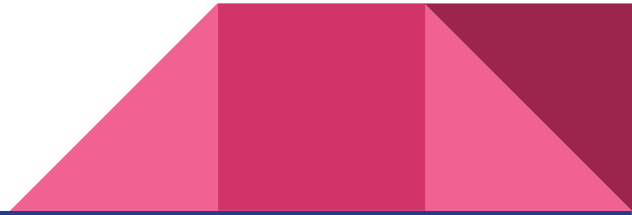
Complexities: Search

Singly Linked List

?

Doubly Linked List

?



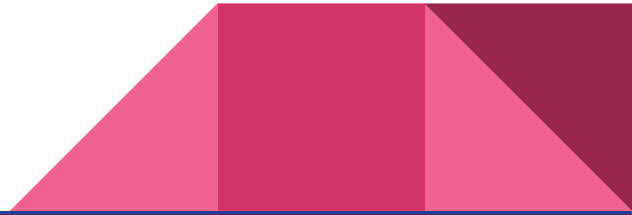
Complexities: Search

Singly Linked List

O(n)

Doubly Linked List

O(n)



Complexities: Insertion

Singly Linked List

?

Doubly Linked List

?

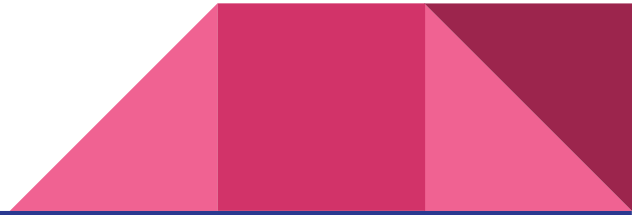
Complexities: Insertion

Singly Linked List

O(1)

Doubly Linked List

O(1)



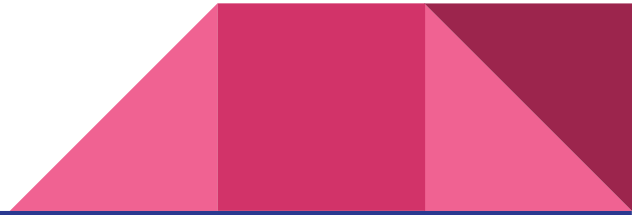
Complexities: Deletion

Singly Linked List

?

Doubly Linked List

?



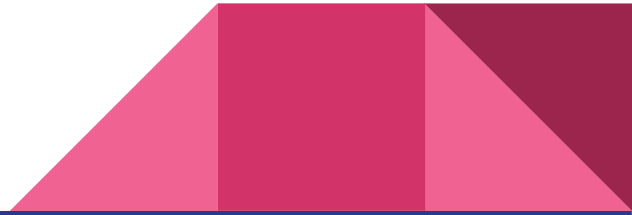
Complexities: Deletion

Singly Linked List

O(1)

Doubly Linked List

O(1)



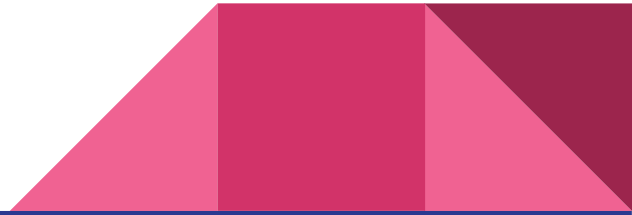
Complexities: Space Complexity

Singly Linked List

?

Doubly Linked List

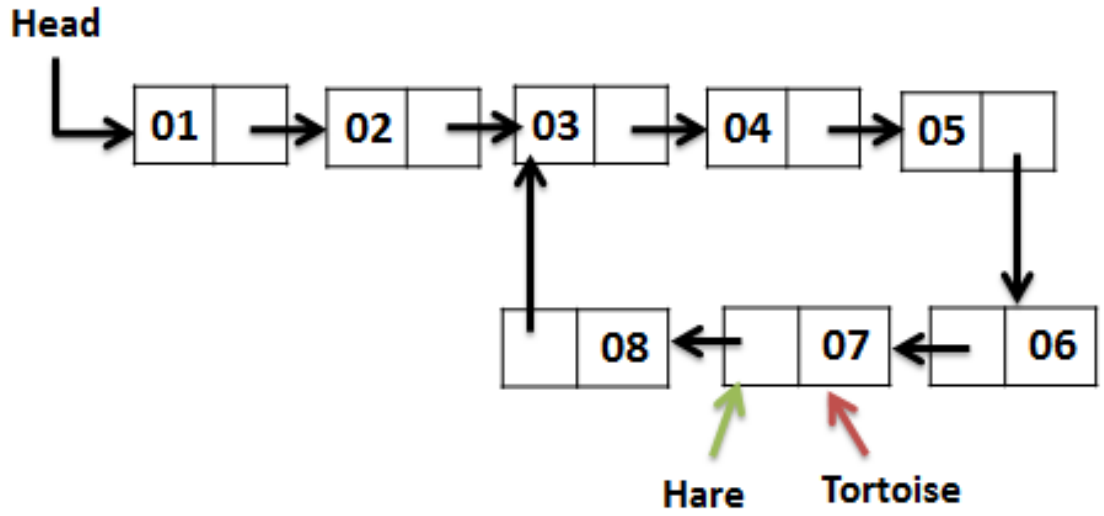
?



Complexities: Space Complexity

Singly Linked List	Doubly Linked List
O(n)	O(n)

Finding a Cycle:



In-Class Interviews

- Match up with someone who has a DIFFERENT question than you!

- Today, we have MULTIPLE LEVELS of questions for you to choose from!
  - First, complete Level 1 questions. If you think you already know how to do it, ask for a Level 2 question. If those also seem easy, try a Level 3!

Reminders

- Fill out feedback form at https://goo.gl/forms/vksIKjr1USLG988C2 !
- Send us your photos from the career fair for extra credit!

Homework Due for Next Week

https://github.com/UMD-CS-STICs/389Ospring18/blob/master/Week6/HW5_Links.md