Linked List

Part II

Data Structures
Week #3

Practice

- Go over Geeks or Geeks:Singly Linked Lists

  https://www.geeksforgeeks.org/data-structures/linked-list/singly-linked-list/

- Practice Linked List problems on Leet Code

  https://leetcode.com/problems/design-linked-list/

Linked List Usage

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Stack-based Algorithms

- use in lieu of the Stack
- for ease of use modify to implement a push() and pop() function to the Linked List

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Backtracking Algorithms

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Recursive Algorithms

- use instead of arrays as a linked list can be filled dynamically

Software Testing

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Manual Testing

- using a test plan, test scenario, or test case or Exploratory Testing
- ensures there are no errors in the code and that the input yields the expected output

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Automated Testing

- using another program to test the new program

Software Debugging

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Code Tracing

- stepping through the program line by line while keeping track of variable s values as the program execut

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Print Statements

- check the value of a varible a particular point in the program
- use in lieu of breakpoints to see what your progam has and failed to execute

Understand

Match

Pseudocode / Plan

Implement

Review

Evaluate

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Merge Two Sorted Linked Lists

https://hackmd.io/@jmzxgyfMSoOFOgLuQ2AJSw/Sk_b-_-Jw

Get Length of Linked List

https://hackmd.io/@jmzxgyfMSoOFOgLuQ2AJSw/By_AM7bJP

Palindrome

https://hackmd.io/@jmzxgyfMSoOFOgLuQ2AJSw/S103m7bkv

Remove Duplicates from Sorted List

https://hackmd.io/@jmzxgyfMSoOFOgLuQ2AJSw/ryuIDmbJw

Evaluate

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	O(n) Time Complexity	O(n) Space Complexity
Merge Two Sorted Linked Lists		
Get Length of Linked List		
Palindrome		
Remove Duplicates from Sorted List		

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Questions?