

Programming, Data Structures And Algorithms Using Python - Week 7

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Contents covered in Week 7 lectures:

- Abstract data types, classes and objects
- User defined lists
- Search trees

Program 1

Q. Write a program to perform various insertion and deletion on a linked list

- a. Insert element at the beginning of the list
- b. Insert element at the tail of the list
- c. Delete an element with given data value

Program 2

Q. Write a program to find middle of a linked list using one traversal

Input: 1->2->3->4->5

Output: 3

Program 3

Q. Write a program to reverse a list.

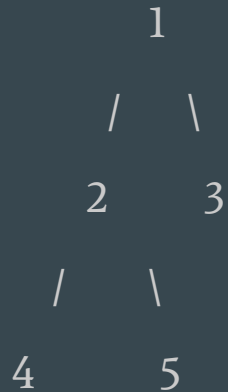
Input: 1->2->3->4->5

Output : 5->4->3->2->1

Program 4

Q. Write a program to check if given array is same as the post-order traversal of a binary tree.

Input:



post = [4, 5, 2, 3, 1]

Output: True