

DSA Tutorial- 7

1. Write a function, **insert**, that takes position, value, and the singly linked list as parameters and inserts a node at the specified position.
2. Write a function, **isCircular**, that takes a doubly linked list as input and returns whether the linked list is circular or not.
3. Write a function, **arrange**, that takes a doubly linked list as input and divides the linked list equally into two splits and merges the reversed of them.

Example:

Input: 2, 3, 1, 5, 7, 10
Output: 1, 3, 2, 10, 7, 5

4. Write a function, **rearrange**, that takes a sorted doubly linked list as input and rearranges the list such that the new order alternates between the largest and smallest remaining values.

Example:

Input: 1, 3, 4, 5, 7, 10
Output: 10, 1, 7, 3, 5, 4