

Write a Java program to check if a given string is a palindrome or not. Palindrome strings are those that read the same backward as forward, ignoring spaces, punctuation, and capitalization. - Palindrome\_Check, Palindrome\_Check1

Implement a binary search tree (BST) data structure in Java, including methods for insertion, deletion, and searching. Ensure that the tree maintains the binary search tree property at all times. - BinarySearchTree

Implement the merge sort algorithm in Java to sort an array of integers. Compare its performance with other sorting algorithms like quicksort and insertion sort for different input sizes. - SortingAlgorithms

Write a Java program to reverse a singly linked list in-place. Implement both iterative and recursive solutions, and analyze the time and space complexity of each. - LinkedListManipulation, LinkedListManipulation1

Create a Java method that takes two strings as input and determines whether one is a rotation of the other. For example, "waterbottle" is a rotation of "erbottlewat". Your solution should have a time complexity of  $O(n)$  where  $n$  is the length of the strings. - StringRotationChecker