

Trees - App Store Database

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Program Specifications:

If a tree's nodes are organized a certain way, they can be used to find information extremely quickly. Binary search trees (BST) facilitate efficient retrievals by inserting items in an ordered manner. In BST's, where each node can have at most two children, and the nodes must be "comparable" in some way, so they can be sorted.

Import the appstore_games.csv file, then store all the apps in a binary search tree. Use the field "title" from the CSV as the key to determine how to sort the apps.

Implement a suitable driver/test class that will add nodes to the tree in the correct place and retrieve an app by name. Finally, when an app is retrieved, also display how many comparisons were made before the app was found.

Notes:

- Typically, Binary Search Trees do not allow identical nodes to be added. For this program, that means apps with identical names will not be allowed.
- BST's require a criterion to determine if an item must go "left" or "right" from a given parent node. Implement the BST using generics, so any object can be added to the BST.

To Do:

- Design and implement a generic Binary Search Tree class.
 - The tree, then, must be able to take objects of parameter `<K implements Comparable<K>>`
- Design and implement an App class, which must implement the Comparable interface.