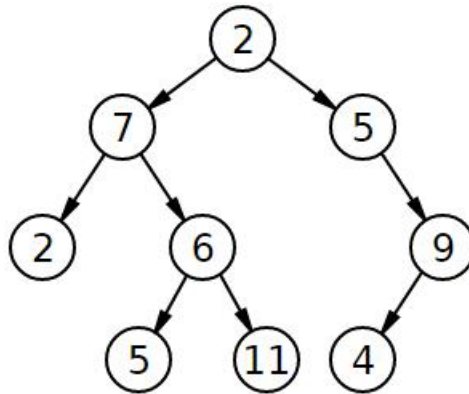


Exercise 1 : Generics

In computer science, a binary tree is a tree data structure in which each node has at most two children, which are referred to as the left child and the right child. In the below figure, the top node whose value is 2 is the root node of the binary tree. The value of the left child of the root node is 7 and the value of the right child of the root node is 5.



An example binary tree with a root node whose value is 2.

In this exercise, you are to design an interface to represent a binary tree node. The interface should declare accessor and mutator methods for the left node, right node and the value of the node. You should also provide an implementation for the interface. Both the interface and implementation you provided should support generics. So the type of the value can be passed as a parameter.