

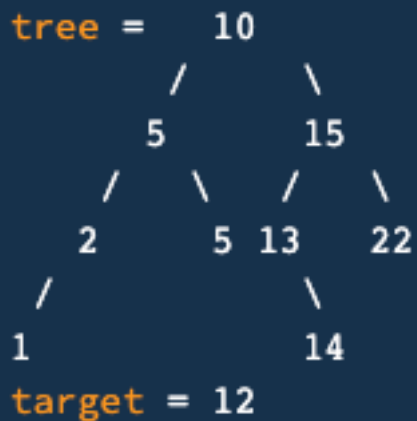
## Find Closest Value in BST

Write a function that takes in a Binary Search Tree (BST) and a target integer value and returns the closest value to the target value contained in the BST.

You can assume that there will only be one closest value.

Each BST node has an integer value, a left child node, and a right child node. A node is said to be a valid BST node if and only if it satisfies the BST property: Its value is strictly greater than the value of every node to its left, its value is less than or equal to the values of every node to its right, and its children nodes are either valid BST nodes themselves or None/Null.

Example:



Solution:

--> 13

Optimal space and time complexity:

Average:  $O(\log(n))$  time and  $O(1)$  space, where  $n$  is the number of nodes in the BST

Worst:  $O(n)$  time and  $O(1)$  space, where  $n$  is the number of nodes in the BST