**PINNACLE 2022 TRAINING**

**DATA STRUCTURES**

**ASSIGNMENT-1**

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**ROLL NO:** 201801158

1.Write an algorithm or develop a code to convert BST to Minheap.

**PROGRAM (PYTHON):**

class Node:

def \_\_init\_\_(self, data):

self.data = data

self.left = None

self.right = None

def inorder(root, a):

if root == None:

return

inorder(root.left, a)

a.append(root.data)

inorder(root.right, a)

def BSTToMinHeap(root, a, i):

if root == None:

return

i[0] += 1

root.data = a[i[0]]

BSTToMinHeap(root.left, a, i)

BSTToMinHeap(root.right, a, i)

def convertToMinHeap(root):

a = []

i = [-1]

inorder(root, a);

BSTToMinHeap(root, a, i)

def preorder(root):

if root == None:

return

print(root.data, end = " ")

preorder(root.left)

preorder(root.right)

root = Node(5)

root.left = Node(2)

root.right = Node(8)

root.left.left = Node(1)

root.left.right = Node(3)

root.right.left = Node(7)

root.right.right = Node(9)

convertToMinHeap(root)

print("Preorder Traversal:")

preorder(root)

**OUTPUT:**

