**ADS MODULE END EXAM**

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**Q1.**

**Java Code:**

class BST{

Node root;

static class Node{

int data;

Node left;

Node right;

Node(int d){

data = d;

left = right = null;

}

}

BST(){

root = null;

}

BST(int newdata){

root = new Node(newdata);

}

void insert(int key){

root = insertdata(root, key);

}

Node insertdata(Node root, int key){

if(root == null){

root = new Node(key);

return root;

}

if(key < root.data)

root.left = insertdata(root.left, key);

else if(key > root.data)

root.right = insertdata(root.right, key);

return root;

}

void preorder(Node n){

if(n == null)

return;

System.out.print(n.data + " ");

preorder(n.left);

preorder(n.right);

}

public static void main(String args[]){

BST t1 = new BST();

t1.insert(50);

t1.insert(40);

t1.insert(10);

t1.insert(80);

t1.insert(60);

t1.insert(20);

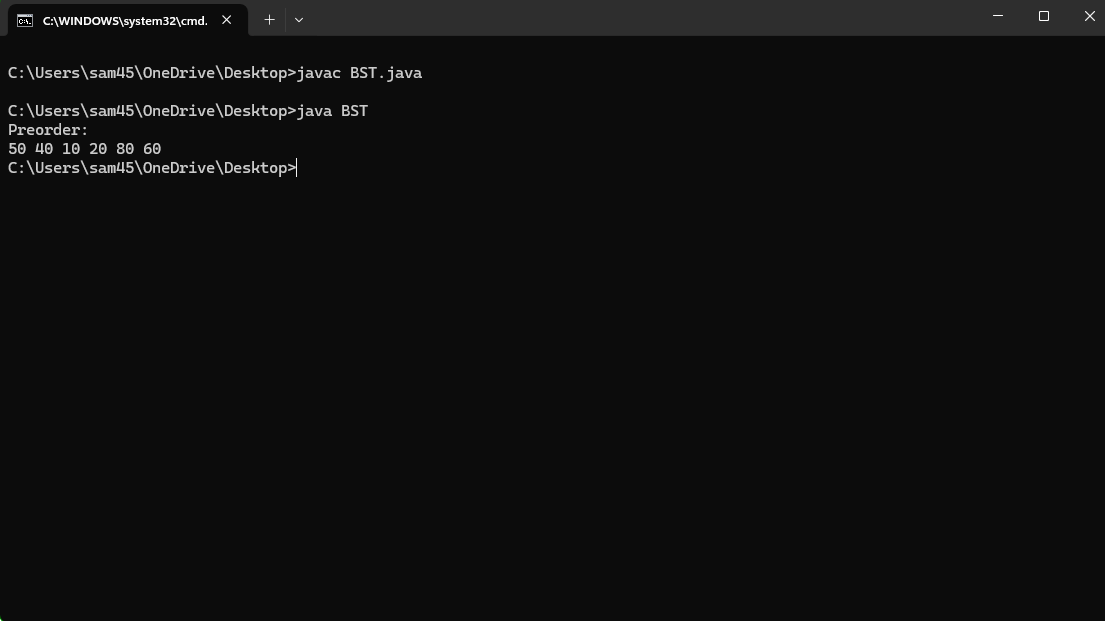
System.out.println("Preorder: ");

t1.preorder(t1.root);

}

}

**Output Screenshot:**

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