**import java.util.PriorityQueue;**

**import java.util.Scanner;**

**import java.util.Comparator;**

**class Huffman {**

**public static void printCode(HuffmanNode root, String s)**

**{**

**if (root.left == null && root.right== null && Character.isLetter(root.c)) {**

**System.out.println(root.c + ":" + s);return;**

**}**

**printCode(root.left, s + "0");**

**printCode(root.right, s + "1");**

**}**

**public static void main(String[] args)**

**{**

**Scanner s = new Scanner(System.in);**

**int n = 6;char[] charArray = { 'a', 'b', 'c', 'd', 'e', 'f' };**

**int[] charfreq = { 5, 9, 12, 13, 16, 45 };**

**PriorityQueue<HuffmanNode> q= new PriorityQueue<HuffmanNode>(n, new MyComparator());**

**for (int i = 0; i < n; i++) {**

**HuffmanNode hn = new HuffmanNode();**

**hn.c = charArray[i];**

**hn.data = charfreq[i];**

**hn.left = null;hn.right = null;**

**q.add(hn);**

**}**

**HuffmanNode root = null;**

**while (q.size() > 1) {**

**HuffmanNode x = q.peek();**

**q.poll();**

**HuffmanNode y = q.peek();**

**q.poll();**

**HuffmanNode f = new HuffmanNode();**

**f.data = x.data + y.data;**

**f.c = '-';f.left = x;f.right = y;**

**root = f;q.add(f);**

**}**

**printCode(root, "");**

**}**

**}**

**class HuffmanNode {**

**int data;char c;**

**HuffmanNode left;HuffmanNode right;**

**}**

**class MyComparator implements Comparator<HuffmanNode> {**

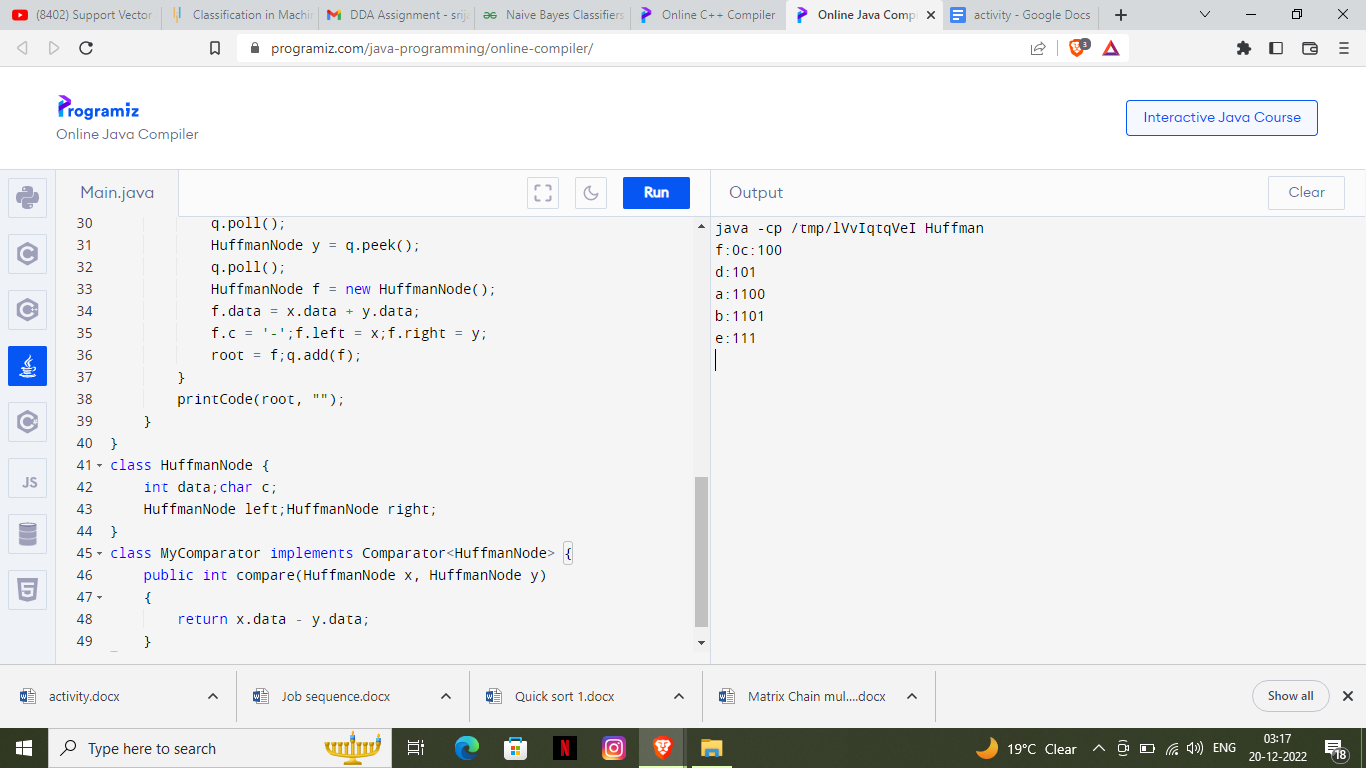
**public int compare(HuffmanNode x, HuffmanNode y)**

**{**

**return x.data - y.data;**

**}**

**}**

****