

**CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY****Chandubhai S Patel Institute of Technology****U & P U. Patel Department of Computer Engineering****Subject Name: JAVA****Subject Code: CE251****Semester: 3rd****Academic Year: 2022-23****Assignment 7****GitHub repository link :**

<b>1.</b>	<b>Create a generic method for sorting an array of Comparable objects.</b>
<b>Code:</b>	<pre>// Name :-aswani darsh // Roll-no :-21ce006 import java.util.Arrays;  public class prec7_1 {     public static void main(String[] args) {         P7_1[] s = new P7_1[4];         s[0] = new P7_1("Darsh", 25, 53);         s[1] = new P7_1("Deep", 91, 49);         s[2] = new P7_1("Yashu", 21, 35);         s[3] = new P7_1("Prince", 20, 85);         System.out.println("-----");         System.out.println("Before sorting:- ");         System.out.println(Arrays.toString(s));         System.out.println("-----");         Arrays.sort(s);         System.out.println("After sorting:- ");         System.out.println(Arrays.toString(s));         System.out.println("-----");         System.out.println("this program is created by aswani adsrh 21ce006");     } }</pre> <pre>// Name :-Aswani Darsh // Roll-no :-21ce006</pre>

	<pre> class P7_1 implements Comparable&lt;P7_1&gt; {     String Name;     int age;     int javaMarks;     P7_1() {         Name = null;         age = 0;         javaMarks = 0;     }     P7_1(String name, int age, int javaMarks) {         this.Name = name;         this.age = age;         this.javaMarks = javaMarks;     }     public int compareTo(P7_1 s) {         return this.javaMarks - s.javaMarks;     }     public String toString() {         return String.format("[%s, %d]", Name, javaMarks);     } } </pre>
<b>Output:</b>	<pre> ----- Before sorting:- [[Darsh, 53], [Deep, 49], [Yashu, 35], [Prince, 85]] ----- After sorting:- [[Yashu, 35], [Deep, 49], [Darsh, 53], [Prince, 85]] ----- this program is created by aswani adsrh 21ce006 </pre>
<b>2.</b>	<b>Write a program that counts the occurrences of words in a text and displays the words and their occurrences in alphabetical order of the words. Using Map and Set Classes.</b>
<b>Code:</b>	<pre> // Name :-aswani darsh // Roll-no :-21ce006 import java.io.*; import java.util.*; public class prec7_2 {     public static void main(String[] args) {         File file = new File("FirstByte.txt");         if (!file.isFile()) {             System.out.println(file + " is not a file.");         }         String[] words;         try (BufferedReader in = new BufferedReader(new             FileReader(file))) {             StringBuilder buffer = new StringBuilder(10000);             String s; </pre>

	<pre> while ((s = in.readLine()) != null) {     buffer.append(s).append("\n"); } words = buffer.toString().split("[0-9]+ \\W+"); } catch (IOException ex) {     words = new String[1];     System.out.println("Error opening file...");     System.exit(0); } Map&lt;String, Integer&gt; map = new TreeMap&lt;&gt;(); for (String word1 : words) {     String key = word1.toLowerCase();     if (key.length() &gt; 0) {         if (!map.containsKey(key)) {             map.put(key, 1);         } else {             int value = map.get(key);             value++;             map.put(key, value);         }     } } map.forEach((k, v) -&gt; System.out.println(k + "\t" + v)); System.out.println("this program is created by aswani adsrh 21ce006"); } } </pre>
Output:	<pre> aswani 1 darsh 1 this program is created by aswani adsrh 21ce006 PS E:\Darsh\java\Practice_file\DarshAssignment7\Pa </pre>
3.	<p><b>Personal Loan Eligibility Criteria for Salaried Applicant is as follows:</b></p> <p><b>Eligible Age Group - 21 years to 60 years</b></p> <p><b>Minimum Net Monthly Income - Rs. 15,000</b></p> <p><b>Minimum Total Work Experience - 1 year</b></p> <p><b>Citizenship – Indian</b></p> <p><b>Create a class AccountHolder to store above given information entered by a user. Create 5 objects of AccountHolder class and</b></p>

	<p><b>store them in an ArrayList. Display names of account holders , who are eligible to get a loan based on given criteria.</b></p>
<b>Code:</b>	<pre>// Name :-aswani darsh // Roll-no :-21ce006 import java.util.ArrayList; import java.util.Scanner;  public class prec7_3 {     public static void main(String[] args) {         ArrayList&lt;P7_3&gt; obj = new             ArrayList&lt;P7_3&gt;();         int i = 1;         while (i &lt; 6) {             Scanner sc = new Scanner(System.in);             System.out.println("Enter following details :-");             System.out.println("Age :");             int age = sc.nextInt();             System.out.println("Net monthly Income :");             double netincome = sc.nextDouble();             System.out.println("Total work Experience :");             int exp = sc.nextInt();             System.out.println("Citizenship :");             String citizenship = sc.next();             obj.add(new P7_3(age, netincome, exp,                 citizenship));             i++;         }         System.out.println("-----         -----");         for (int j = 1; j &lt; obj.size() + 1; j++) {             System.out.println("AccHolder " + j + " is " +                 obj.get(j - 1).eligibility());         }         System.out.println("this program is created by aswani adsrh         21ce006");      } }</pre> <pre>// Name :-aswani darsh // Roll-no :-21ce006 class P7_3 {     int age;     double netincome;     int exp;     String citizenship;</pre>

	<pre> P7_3(int age, double netincome, int exp, String     citizenship) {     this.age = age;     this.netincome = netincome;     this.exp = exp;     this.citizenship = citizenship; }public String eligibility() {     if (age &gt;= 21 &amp;&amp; age &lt;= 60 &amp;&amp; netincome &gt;= 15000 &amp;&amp; exp &gt;=         1 &amp;&amp; citizenship.equals("Indian")) {         return "Eligible";     } else {         return "Not Eligible";     } } } </pre>
<b>Output:</b>	<pre> Enter following details :- Age : 18 Net monthly Income : 1000000 Total work Experience : 15 Citizenship : Indian Enter following details :- Age : 18 Net monthly Income : 1050420 Citizenship : Indian Enter following details :- Age : 20 Net monthly Income : 1061314351 Total work Experience : 18 Citizenship : indian ----- AccHolder 1 is Not Eligible AccHolder 2 is Not Eligible AccHolder 3 is Not Eligible AccHolder 4 is Not Eligible AccHolder 5 is Not Eligible this program is created by aswani adsrh 21ce006 D:\F:\Darth\java\Darth\1st file\DarthAssignment7\DarthAssignment7.java </pre>