

J&V& SE PROGR&MMING

ASSIGNMENT -1

SUBMITTED BY:

AYUSH KUMAR JHA
SAP ID - 500086400
Enrollment no - R200220083
B.C.A -I.O.T.

SUBMITTED TO:

Inder Singh Sir

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Assignment-1
1) write a Jara method to countall goods and vaiely
  in a string without using library functions.
of import, java. util. Scanner;
    public class Main &
        public static und main (Sting [] ange) ?
             Scanner in 2 new Scanner Csystem, in);
             I ystem . not pointly . (" Enpot the storng: ");
            3 totag sto 2 in neatline();
           System out pointin ("Number of Mowels
                       in the storng: "+ Count- Vowels (sto)+"1,
          System out println l'Number of words in the
                         story: "+ lount-woods (sto)+"In"
     public . Static int count-vowely (story sto)
          Int count 20;
        for (inti=0; icstr. length (1; i++) }
          If (sto. charA+(i) == '9' 11 str. charA+(i) == 1e'11
             ghr. CharAt(i) = 211 11sh. CharAt(i)==011
            3 hr. Char At(i) = = 101)
           count ++;
    return (nunt;
```

public static int. count-woods (stoing sto)

Soft count = 0; if (!(" " equals (sto. substang (0,1))) 11 ? (""equals. (sto. substrong. (sto. beight ()-1))); or first =0; [2 sto.length. (); [++) 9 of esto-charate(1)==11)8 · danier le

Or Write a Java method to check wheather a string is a ralid exemance and password. -> Impost fara. Util. scanner; public class ayestion 25 public static void main (story [] args) Scanner So put = new Scanner Csystem. In); System out port (" Inter Userame"); Story U= snput. neathell; story s= Input.naMrelli If (is-valid-Password Cs); System or L. portin ("Password is valid:"+5); public static horolean 12 calid Parswood (storing Rouseward) 5 If (parsuged. length () < Parstiched Lenth) return Polse; Up int char :=0; int num = 0;

for (int f=0; iz password length C); i++)? Char ch = paiscind. charAt());

(if (is Numeric (ch)) numet;

(if (is-letter (ch)) char ++)

else octum false; glown by Japanes con a distribusions schon: (char >= 2)38 non > 2); public static boolean is Letter (charch) ch := character. to Upperlase (ch); Jehon Ch >= 10" 18ch c= 12"); public state hodlean is Numeric Charch) & rehm (ch >= 0' 18 ch & = '9') The state of the s

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(23) Write a programs for the following sections:
Qa) Far Arraphist, With a program:
         -> import jara. wil. +;
                 public class, Main 8
                   public static void main (string [3 args) }
                     List estoing > list1 ? new Broay List (stoing )();
                      list, add ("Red").
                      1:stl. add l'aren");
                    175H.add ('Orange");
                      list hadd ("white");
                       list odd ( "Black");
                    Scanner Sc = new Scanner (System. in);
                    System. out. posotin ("List-1: + List1);
            11 Question 1-
             System. out. printer ("Enter the index to retrieve Element");
                intil= sc.nextInt();
              system. out. pointin (; liskst.get (il));
            11 Overtion 2:
              System. out. paintin ("Enter the index to Edit");
               int 12 = Sc. neat Entels
               System. v. 1. pointer ("Enter the value");
               storing ral = scineates;
               1351. set (12, ral);
               System out. pointly (115H);
```

11 Questin 3: List estoing > 15st2 = new Propertist Estoing > ();
System out pointin ("Enter length for List-2:"); tof len " len = sc. heal@nf()'s for Cinting; klenti; stal ? System.out. poshth nc "enter element"+ 1+":"); Stong sto= sc. neat(); 11.42. add (sro); (1.51) (1.0.1) Of (11st equals (11st-2) = 2 true) ? System wt. patokin (161st-1:4+151+15); else ? " system vol. pathtly E"LN7/17 "+ 1157/1+" "S not equal to LIST-2: "+ 11st2); to And a March of it of all on the local 11 guestion 4:-Arrowy List astrong > 10+3 = new Arrowy List > ();
for (stating st: 115H)?

[15+3. add (st); System. out. posintin ("Cloning (5)2-1 to 1550-3"); System. out. posintin ("152-3: "41523);

b) For LinkedList, with a program: Import Java UHI &; public class Main ? public state vord main (string [-3 args) of Linked List (Integer > cl = new Linked List (); it is add (100); I we found the harden c1.add (200); d.add(300); chadd (hoo); 11 question 1: system.out. printin ("Original linked list: "); system . wt. paghtin (c1); chadd firstos; clado East (600); System. out. pointin ("Linked list after adding a nelement at shart sond: ");

eyetem out. printin(c1). System. out. printin(c1), 11 quentim 2:-Cyslem out printin ("First element of list is! "+ (1. get First()); system out printin ("Last element of listis:" + (1.get cost()); 11 qualin 3:-

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11 Ques 5m 7:-
 LinkedList & Enteger 7 CR = new Linked List < > ();
   (2. add (700);
 (2. add (Abu);
    Cz. add (900);
    (2.add (1000);
    Systemout. pointln (" second linked List: "+ (2);
 Unicedist Contegers newlist = New LinkedList < >();
   newlat add Au (c1);
   newlast, cold ou cert;
  System. rut. posn Hn (" Josning"+ (1+" and" + (2+".....");
 system. not. pointin ("New Iintred 18t: "+ new List);
 11 question 4 ;
  Scanner SC = new Scanner Csystem in);
  System. not. pointle " Enter number to find: ");
 int num = sc. neatherels;
  System. out. posndin ("Dones the List contains "+ nom + 1?"
                        of new List. contains (nom));
 11 guesson 5:-
   List Winteger > group Hst : new Poraghis 16> (new Lni);
   System out. pointin ("The Broadist elemente are; ");
for (Object i: arroylist) }
             System out iprint (in ");
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() Hashsel, write a program;
                            y and they
         import java. UHls;
          public class Main &
               public static void main (stoing args[]) }
                    Hashset < storings set = new Hanhset Estory s();
set add ("Jara");
                     set add ("Pythm");
                    set add ("(");
                     set add ["swift"];
                     set addl "(cottin");
                   System.out.poshlin ("Kashset: " + set);
                 Stoing arol ] = New Stoing [set. size()];
                 inti=0;
                 for (stong element: set) &
                       System.out.println(n);
            List (storing > list = new Porocylist (storing > (set);
             System. out. patotho ("Hashsel contains: "+ set);
             System rut printin ("Porray List : containe " + List);
             Set clear (1's
                 system out pointly ("The set ofter dear(): "+ set );
            3
```

d) Treeset, write a program: impost java. Util. Tree set; public class main of public state wid main (stong (] args) } Treeset (Enleger > Tree Set 1 = new Tree Set < Enleger > (); Treeset add Clothing Treeset add (22); Treeset add (36); Toreset add (175); Treeset add (16) Treesetadd 614) System out pointly Charginal tree set: "+Treeset1] 7. partiet hour Abant of System.out. position ("Removes the first (lower 2) demont: 4+ Freesett. pollFirst(); Systemoul. possible ("Removes the lastlighest) element " + Tree set pollast(1); system out possition ("Free set after ormany first element: "+ Treeset1). llquestion 2) Treeset Eintegert Treeset ? (Tree Set & Integer) Tree Sett. or advant water to show all all and a

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System. out. pointh ("Original tree set: "+ Treeset 1);
        system. out. posintin ("cloned tree list: "+ Tree set 2);
Ilquestion 3:-
        system out possible ("size of the bree set! "+
                       Tree set 1. size ()); | Mind
         11 question 4:-
                            High the Special Contraction
         Tree sct < Enkger > Treeset 3 = new Treeset & Integer > (1;
              Tree Set3. cedd Crayy; w. 11 1 log 1 for that
              Tree set 3. add (23);
              Torreset 3. add (5);
              Transel 3. leader (87); ) illing. lin. mby
          System out pointin ("Original bore set: "+ Tree BeH);
          System-out-pointly ("Third Treetet: "+ Tree set 3);
           hookan Holee 17 Toke Set 1. Equals (Take Set 3);
         System out println (" Fre both set equals: "+ value);
```

e) Hash Map, Write a program: - 11 -> impost java. chil. of; land of allowy. Los mos public closs main & public static void main (string & Jargs) } How hop (Tinkgen , storing > hash Maph = new HashMap 4 En leger is Story > C1; Hasp Map 1. put (1, 4Red"); hashmapl. put (B, "Black"); hashmapl. put (B, "Black"); hashmapl. put L4, "white") hash Mapl. pt (5, "Bloe"); Ill 1 10 500 1155 3 10 x. 21 401000 Ilquestion 1:- (12) March 11801 System, out. positin C" Size of the Last map; " (11) con a thankapt street Walling to my 11question 2: - tolore 1 and) didney to my for (map. Entry) or hashmapl. entry. set (1) 9 System out profesto (reget key () + 1" " + n. get value()); 11 question 7: System.out. poshtin ("me voighal merp: " + Lashhapi);

Hashmap (Integer, storing) howshimap 2 2 now

Hashmap C. Brkeger Storing > ();

howshmap 2 - (Hash map) hashmap 1. clone();

System out .. poshtln ("Cloned map: " + hash map 2);

Ilquestin 4.

Set leegset = houhmap 1. leegset ();
System. out. printh (" leeg set values are: "+ leegset);
String val = (String) houshmap 1. get (3);
System. out. printlin (" value for keys is: "+ val);
}

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