## ASSIGNMENT- 3

Collections;

(3)

Java collections framework is a set of classes and interface in Java that roovides a unified architecture for representing and manuplation collections.

Tupes of collection : (8/8)

1. Adray list; An Array list is regiable crossy implement

import java. util. \*;

Class main of

public stettic void main (String 1 aggs) {

him I have

along too with a might

Amaylist < strings list = new Aoraglist <> c);

cist add ("corrot")

List. add ( Barraynan);

System out posintly (int);

collections. sort (list);

System. out. point In ( cist)

Output ;

CApple, Corrot, Bornarios
CApple, Bornaria, Carrot)

```
2. Linked list; A linked list & a doubly linked list implement
tation of list interface.
  import face otil +;
 Class Ented!
   public static word main (Hring to angs) {
       Linked list ( string ) List = new Linked List x> (3)
  Cit add ("apple");
         System out point In ( cist ); 23
 output;
    [ Apple, Bomona]
           Make Mark other Made
3 Hash Set; A Hash set & a set of implementation
tat used a hash table for storage.
  Import saw utilist;
   Class main f
     public static void mail (String [] array) ;
        Hoshset (stoing) of new Hourset (> ();
          st. add ("apple");
          74. Ogg (, Cassot,);
          pool ystem. out pointm ( st ); 27
```

Output;

[Apple, Corrot]

```
A. Treeset : A Tree set & a set implementation that
 Uses trea structured storage.
   import java, util. *;
                                 MINAL LIBIT
   Class Main of
      public static word main (string or angs) {
     Treeset (Hring) set = new Treesed ex cs;
        set add ("apple");
        set add (" Remano");
        System. out. portnt.un (set); 93
Ootput;
        Surt an out sport which they water 15
    Capple, Romano ] &
5. Hash map; A map implementation that was a hash
 table for storage.
    Class Main of
   public static vold main (stringer arroy)
Hash Map (Horing) Map = new Hash Map <> C);
         map. pot ("apple");
         map put at Bomoma"1";
         System out print en (map);
        system. out point en map. keeplet();
system. out. pointen map. valoes(); 33
 output:
  fi=apple, 2 = Romanay
```

Capple, Bomora

```
6. Tree Map? A Tree Map is a map implements that use
Tree for storage.
   import gava util x;
                            ce . h lip number
   Class Mains
    public static void month (Stringer) orgs) of
    Tree Map (Hring) Map = new Free Map es is;
         map. pvt (1, "apple");
         map. put (21" Romana")
         system. out print Inc(map);
         System. out pod nten (map. keyset());
         System. out. pointen(map. valoal);
 output;
1= apple, 2= Bomomaily
  [112]
  Capple, Bomoma
7 Linkedtoshseti a linkedtkshset & atype of set
that of maintains a doubter-linked all of the elements
   impost java. util. A;
                       Commerce has been
   class matof
    public static void main string to anguly
    l'intedtasheet estronol set = new contedtasheet exco;
       set-add ("apple");
       set adde Bemoneil;
       set add ("cherry")
    system. out print Inc sets; }]
```

```
priority Queve. A prisorty queve is a abeve implem-
entation that orders elements Based on their natural
ordering or a custom comparator.
        iroport 'aua vtil. 4;
        ccass proster !
          public Static world main (stringt arap) {
     possityaiev. < string aveve = new possityavev. ();
       aveve add ("Apple");
       Queve add (" Ramana");
       Queve add (" cherry");
       System. out pointly (ques); 34
output ;
   [Apple, Banana, cherry]
Array Dequeur) An Array Dequee is a deque implement
ation that used on angray for storage
   import java. ofil. x;
  Class Array Deque S
       public static word mein (string oragers) {
    Array Degre (String) degre = new Array Dequeeres;
        deque add ("Apple ");
        deepveradd ("Bomana");
         System out point (deque); 23
Ootput;
```

CApple, Bomana

```
10. Stack: LIFO impersentation of the Cut interface
   import java. offl. x;
   ( cass sindin &
     public (cas main (Hoing [] orgs) (
        Stack (string) stack = new stack ();
          Steek . push ("Apple");
          Steek . push (" Banana");
           System. out : point in (stack); 33
 Outpot; [Apple, Banana]
11. vecetor; a vecetor is a syncronized implementation
  Of the List interfere,
    import java viil x'
      Class rector [
      public static word main (string es args)
      vector estrings vector = new vector excr;
        vector add ("apple");
        rector add (" cyttored apple")
        system out, pointen (crector);
        33
 output ?
```

Capple, cust and apple ]