

Assignment - 03.

Name: - K. Hances Rego: 1923240 84

Collections of Java as follows:

1. ArrayList: An AmayList is resizable array implement import Java. Letil. *;

Class ArrayListex {

public static Void main (string[] args){

Amaylist estring, List = new Amay List <>();

List. add ("Apple");

List. add ("Banana");

Ust add ("chemy");

System. out. Println(Ust);

3

outputs

[Apple, Barana, Cherry]

din Kedlist:

A Linkedlist is a doubly-linked list imple of list interface

program:-

import Java. citil. *

class Linkedustexs

public Static Ubid main (String args(1))

LinkedList < String > list - new Linked Liste > ();

Ust add (" Apple");

Ust add ("cherry");

3

itput:

[APPle, cherry]

d Hash set is a set implementation that uses a 3. Hash set :hashtable for storage Code :import Java. util *; class Hashexa public state word man (string args () { Hashset < String= Set = new Hashset < >(); Set add ("Apple"); Set add (" Icecram"); System out println (set); Outputs [Apple, Icecream] reeset A Treeset is a Set Implementation ree for storage. de:import Java. Letil. *; lass Treasetex & public static void main (string args (1)) Treeset estring > Set = new Treesete > () Set add ("Apple"); Set add ("Banana"); Set - add ("chang"); System act - print to (set);

```
3. Hash set :-
  of Hash set is a set implementation that uses a
  hashtable for storage
 Code :-
  import Java. util +;
 class Hasberd
   public static word main (String args (1) {
      Hashset < String= Set = new Hashset <= >();
        Set add ("Apple");
       Set add (" Icecram");
      Cystem. out. println (set);
Oretputs
    [Apple, Icecream]
reeset
A Treeset is a set implementation
ree for storage
de:-
import Java. Letili #;
lass Treesetex &
public static void main (string angs (1):
     Treeset cotting > set = next = Treeset = ()
       Set add ( "Apple");
      Sct. add ("Banana");
      Set - add ("chary")
  System ad - punt en (sets;
```

outputs [Apple, Banana, chemy] 5. Hashmap: a map implementation that uses or hos class Hashmapers Public Static Void main (String args (1) { Hashmapestring, Integer > map = new Hashmape map. put (+ Opple", 1); map . put l'Banana", 2); map. put ("Cherry", 3); System. out println (map); outputs-{Apple = 1, Banana = 2, Cherry = 3} . TreeMap: A 'TreeMap' is a map implementation that free for storage Code: import Java. util-*; class Treemapord public Static Vold main (String args()){ Tree Map L String, Integer map = new Treen map. put ("Apple", 1); map. put ("Banana", 2); map. put ("cherry", 3); System. out Println (map);

```
output.
          [Apple, Banana, chemy].
  5. Hashmap: - a map implementation that uses or has table for storage.
     import Java. util. +;
     class Hashmapez {
        Public Static Word main (String args (1) {
         Hashmapestring, Integer, map = new Hoshmape:
          map. put ( + Apple", 1);
          map. put (4Banana", 2);
         map. put ("Cherry", 3);
       System. out println (map);
  output:-
      EApple = 1, Banana = 2, cherry = 3}
5. TreeMap:
     A 'TreeMap' is a map implementation that
  free for storage
 Code:
  import Java. util-*;
 class Treemapers
   public static void main (String args()){
      Tree Map L string, Integer map = new Treen
        map. put ("Apple", 1);
        map. put ("Banana", 2);
        map. put ("cherry", 3);
      System. out. Println (map);
```

output: {Apple = 3, Banana= 2, cherry= 3} 7. LinkedHashset A linkedhashsed is a set implementation that uses a hashtable and conted list for storage. import Java util +; llass linted Hashseters Public State void main (String argso) ? Linked Howardestring > Set = new Linked Hashset (>1); Sct. addl " Apple"); Set add ("Banana"); set add ("charry"); System out printen (set); output: [Apple, Banana, cherry] Priority Queue of priority Queue is a Queue implementation Orders elements Based on their natural or a custom Comparator. Code: Import Java. util 4; class priority queueces Public State World main (Strings) args); Priority Queue (String, Queue: new priority Que

Dutput: {Apple = 1, Banana= 2, cherry= 33 7. LinkedHashset A Unkedhashsed is a set implementation that uses a housetable and Linked List for storage. import Java. util. +; llas linted Hashsetex (Public State void main (String argso) ? Linked Houst set estring> set = new Linked Hashset <>1); Sct. addl" Apple"); Sct. add ("Banana"); set add ("charry"); System out printen (set); outputs [Apple, Banaina, cherry]

Priority Queue:

orders elements Based on their natural or or a custom Comparator.

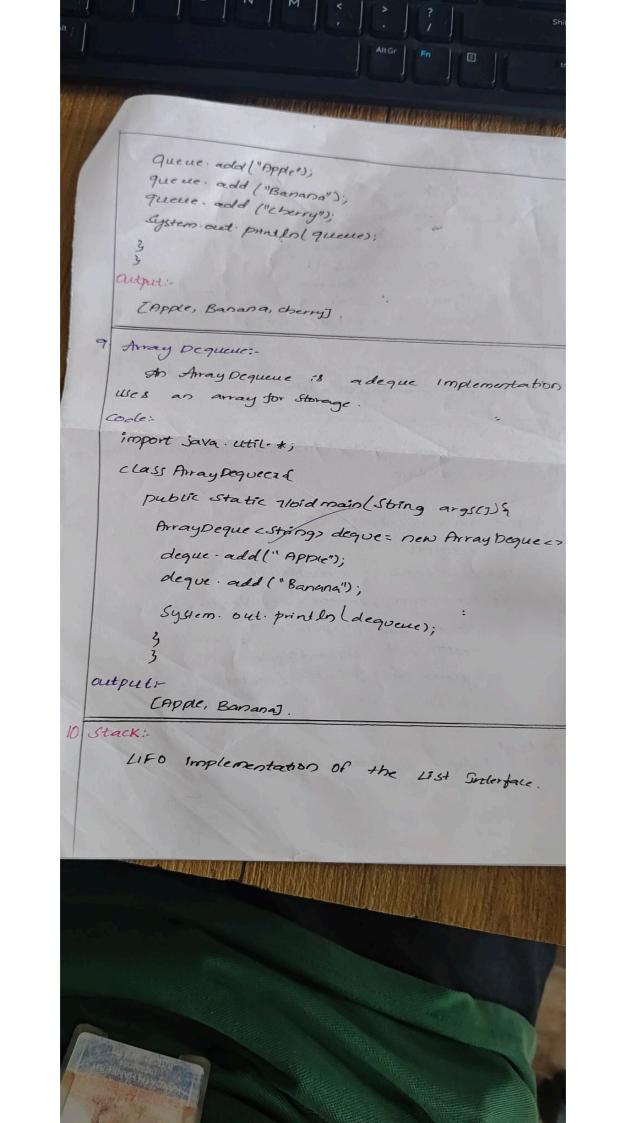
Code:

Import Java. util. 4;

Class priority queuecx {

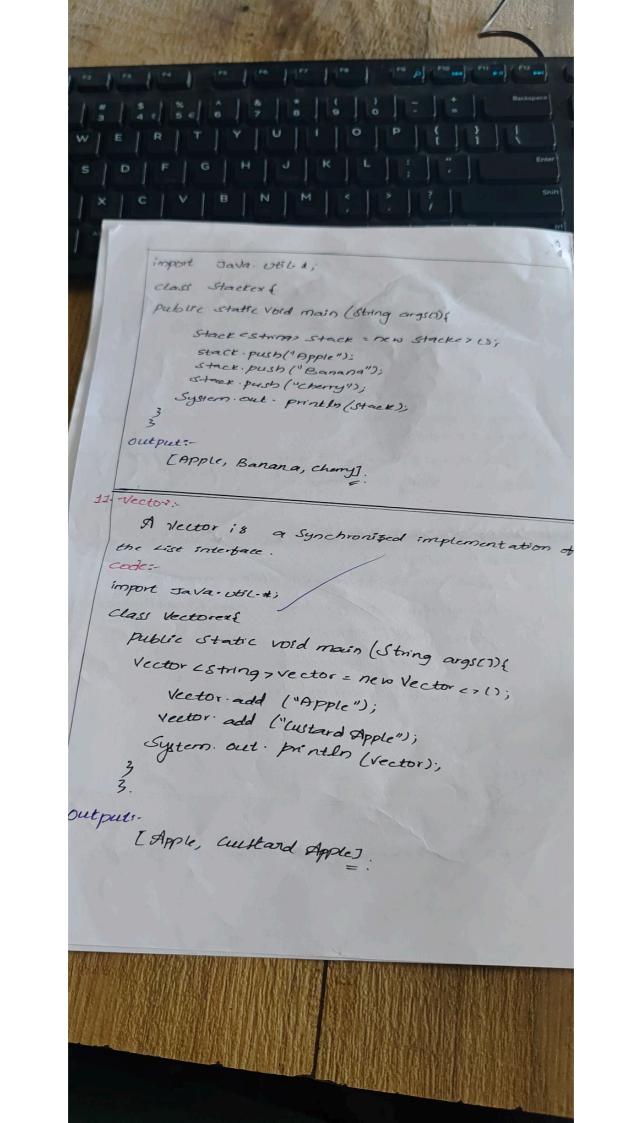
Public State Word moun (Strings) args) {

Priority Queue (String) Queue = new priority Que



```
Queue add ("Apple");
  que ue. add ("Banana");
  queue. add ("cherry");
  System out punter queues;
autput:
  [Apple, Banana, cherry].
Array Dequeue: -
   An Away Dequeue is a deque implementation
Wes an array for Storage.
Code:
 import java . util +;
 class Array Dequecad
    public static ribid main (String args (7) &
      ArrayDeque estring, deque: new Array Deque =>
       deque - add (" APDIE");
       deque add ("Banana");
       System. out. println (dequeue);
outputi
       CAPPLE, Banana].
Stack:
```

LIFO implementation of the List Interface.



```
import
                 Java. Util 1;
          class Stacker (
          public static void main (String args 17) {
              Stack = String > Stack = TXN Stacke > W;
               stact · push("Apple"):
               Stack. push ("Banana");
              Stack . pusts ("Cherry");
            System. out . println (Stack);
       output:-
           [Apple, Banana, chamy].
   11 Vector:
        A rector is
                        a Synchronized implementation of
     the List interface.
    code:-
     import Java- Util-#;
    Class Vectorex?
      public static void main (String args(1){
       Vector Lstring , vector = new Vector < >();
            Vcetor add ("Apple");
          vector add ("Custard Apple");
        System out println (vector);
output:-
       [Apple, Custard Apple]
```