**Object Oriented Programming LAB**

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**Roll No: 40**

**Batch: RMCA**

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**Experiment No.: 26**

**Aim**

Maintain a list of Strings using ArrayList from collection framework, perform built-in operations.

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**Procedures**

**Source Code**

import java.util.\*;

public class arraylist{

public static void main(String[] args) {

ArrayList<String> arrayList= new ArrayList<>();

arrayList.add("Aravind");

arrayList.add("william");

arrayList.add("Tejas");

arrayList.add("Nebin");

System.out.println("The elements of the arraylist is - "+arrayList);

Collections.sort(arrayList);

System.out.println("\nThe ArrayList Sort : "+arrayList); // ArrayList Sort

Collections.addAll(arrayList,"Vivek","Vikram","Shantanu","Wilson","Godwin");

System.out.println("\nAdding new items in the arraylist is : "+arrayList); // ArrayList AddAll

Collections.sort(arrayList, Collections.reverseOrder()); //Arraylist in reverse order

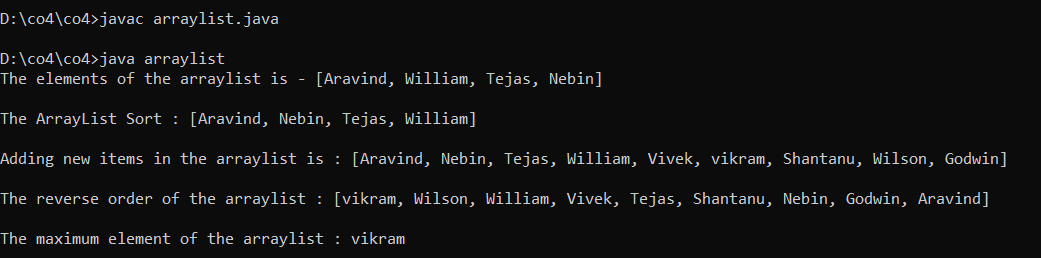
System.out.println("\nThe reverse order of the arraylist : "+arrayList);

System.out.println("\nThe maximum element of the arraylist : "+Collections.max(arrayList)); //Max elements in the arraylist

}

}

**Output**



**Experiment No.: 27**

**Aim**

Program to demonstrate the creation of queue object using the PriorityQueue class.

**Procedures**

**Source Code**

import java.util.PriorityQueue;

public class pqueue {

public static void main(String[] args) {

PriorityQueue <String> pq = new PriorityQueue<>();

pq.add("achu");

pq.add("vichu");

pq.add("kichu");

System.out.println("Element are:");

System.out.println(pq);

System.out.println("Peek element is :");

System.out.println(pq.peek());

System.out.println("Removed element is :");

System.out.println(pq.poll());

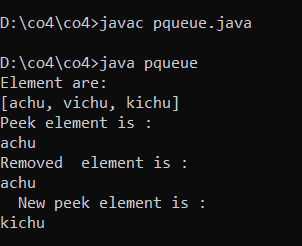
System.out.println(" New peek element is :");

System.out.println(pq.peek());

}

}

**Output**



**Experiment No.: 28**

**Aim**

Program to demonstrate the addition and deletion of elements in deque..

**Procedures**

**Source Code**

import java.util.\*;

class adddel

{

public static void main(String[] args)

{

Deque<String> deque = new LinkedList<String>();

deque.add("kichu");

deque.addFirst("sachu");

deque.addLast("achu");

deque.push("vichu");

deque.offer("devu");

deque.offerFirst("divya");

System.out.println(deque + "\n");

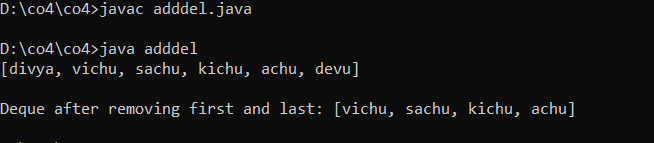
deque.removeFirst();

deque.removeLast();System.out.println("Deque after removing " + "first and last: " + deque);

}

}

**Output**



**Experiment No.: 29**

**Aim**

Write a Java program to compare two hash set

**Procedures**

Source Code

import java.util.\*;

public class hash {

public static void main(String[] args) {

HashSet<String> h\_set = new HashSet<String>();

h\_set.add("Red");

h\_set.add("Green");

h\_set.add("rose");

h\_set.add("White");

HashSet<String>h\_set2 = new HashSet<String>();

h\_set2.add("White");

h\_set2.add("Pink");

h\_set2.add("purple");

h\_set2.add("Green");

for (String element : h\_set2){

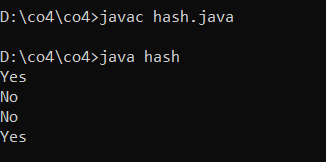
System.out.println(h\_set.contains(element) ? "Yes" : "No");

}

}

}

**Output**



**Experiment No.: 30**

**Aim**

Program to demonstrate the working of Map interface by adding, changing and removing

elements.

**Procedures**

**Source Code**

import java.util.\*;

class HashMapDemo {

public static void main(String args[]) {

Map<String, Integer> hm = new HashMap<String, Integer>();

hm.put("Anu", new Integer(3));

hm.put("Binu", new Integer(1));

hm.put("Cinu", new Integer(2));

for (Map.Entry<String, Integer> me : hm.entrySet()) {

System.out.print(me.getKey() + ":");

System.out.println(me.getValue()); }

} }

**Output**

