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**Batch: RMCA B**

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**OBJECT ORIENTED PROGRAMMING LAB**

**Experiment No.: CO4:7**

**Aim**

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

**Procedure**

import java.util.\*;

class Collection\_Framework\_Queue {

public static void main(String args[]) {

         Queue<Integer> q = new PriorityQueue<Integer>(new Comp());

         int ch;

         Scanner sc = new Scanner(System.in);

         do {

System.out.println("\n1.ADD\n2.PEEK\n3.POLL or REMOVE\n4.DISPLAY\n5.EXIT");

             System.out.println("Enter your choice : ");

             ch = sc.nextInt();

             switch (ch) {

                 case 1:

                     System.out.println("\n\tEnter Integer : ");

                     int n1 = sc.nextInt();

                     q.add(n1);

                     System.out.println("\n\tADDED SUCCESSFULLY ! ! ! ");

                     break;

                 case 2:

                     if (q.isEmpty()) {

                         System.out.print("\n\tQueue Empty ! ! !");

                     } else {

                         System.out.print("\n\tPeeked element is " + q.peek());

                     }

                     break;

                 case 3:

                     if (!q.isEmpty()) {

                         System.out.print("\n\tRemoved element is " + q.poll());

                     } else {

                         System.out.print("\n\tQueue Empty ! ! !");

                     }

                     break;

                 case 4:

                      if (!q.isEmpty()) {

                         System.out.print("\nSize of queue : " + q.size());

                         System.out.print("\nQueue elements  : " + q);

                          System.out.println("\nQueue elements are");

                         for (int i : q) {

                              System.out.println(i);

                         }

                     } else {

                         System.out.print("\n\tQueue Empty ! ! !");

                    }

                     break;

                 case 5:

                     break;

                 default:

                     System.out.println("\n\tPlease enter valid choice ! ! ! ");

             }

        } while (ch != 5);

    }

}

class Comp implements Comparator<Integer> {

    public int compare(Integer a, Integer b) {

        return a % 10 > b % 10 ? 1 : -1;

    }

}

**OUTPUT**





