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**OBJECT ORIENTED PROGRAMMING LAB**

**Experiment No.: 23**

**AIM**

Program to demonstrate the creation of queue object using the Priority Queue 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:





