**ALGORITHUM 3 : Write a program to demonstrate the use of Priority CPU Scheduling algorithum.**

import java.util.\*;

class Process

{

int pid;

int bt;

int at;

int pr;

Process(int pid, int bt, int at, int pr)

{

this.pid = pid;

this.bt = bt;

this.at = at;

this.pr = pr;

}

public int prior()

{

return pr;

}

public int arvt()

{

return at;

}

}

public class Priority

{

public void priorityScheduling(Process proc[], int n)

{

Arrays.sort(proc, new Comparator<Process>()

{

@Override

public int compare(Process a, Process b)

{

int z = 0;

if (b.prior() > a.prior())

{

z = a.prior() - b.prior();

}

else if (b.prior() == a.prior())

{

z = a.arvt() - b.arvt();

}

return z;

}

});

}

public static void main(String[] args)

{

Priority ob = new Priority();

Scanner sc = new Scanner(System.in);

System.out.println("Enter No. of processes : ");

int n = sc.nextInt();

Process proc[] = new Process[n];

for(int i = 0; i < n; i++)

{

System.out.println("Enter process-" + (i+1) + " Burst time, Arrival time and Priority :");

int pid = i+1;

int bt = sc.nextInt();

int at = sc.nextInt();

int pr = sc.nextInt();

proc[i] = new Process(pid, bt, at, pr);

}

ob.priorityScheduling(proc, n);

System.out.println("\npid burst arrival priority");

for(int i = 0 ; i< n; i++)

{

System.out.println(proc[i].pid + " \t " + proc[i].bt + "\t" + proc[i].at + "\t" + proc[i].pr);

}

sc.close();

}

}

Output :

