**CODE:-**

**import java.util.\*;**

**public class NonSJF {**

**public static void main(String args[]) {**

**Scanner sc = new Scanner(System.in);**

**System.out.println("\*\*\* Shortest Job First Scheduling (Non Preemptive) \*\*\*");**

**System.out.print("Enter no of process:");**

**int n = sc.nextInt();**

**int process[] = new int[n];**

**int arrivaltime[] = new int[n+1];**

**int burstTime[] = new int[n+1];**

**int completionTime[] = new int[n];**

**int TAT[] = new int[n];**

**int waitingTime[] = new int[n];**

**int temp, k = 1, time = 0;**

**int min=0, sum = 0, compTotal = 0;**

**float avgwt = 0, avgTAT = 0;**

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

**System.out.println(" ");**

**process[i] = (i + 1);**

**System.out.print("Enter Arrival Time for processor " + (i + 1) + ":");**

**arrivaltime[i] = sc.nextInt();**

**System.out.print("Enter Burst Time for processor " + (i + 1) + ": ");**

**burstTime[i] = sc.nextInt();**

**}**

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

**for(int j=0;j<n;j++){**

**if (arrivaltime[i] < arrivaltime[j]) {**

**temp = process[j];**

**process[j] = process[i];**

**process[i] = temp;**

**temp = arrivaltime[j];**

**arrivaltime[j] = arrivaltime[i];**

**arrivaltime[i] = temp;**

**temp = burstTime[j];**

**burstTime[j] = burstTime[i];**

**burstTime[i] = temp;**

**}**

**}**

**}**

**for (int j = 0; j < n; j++) {**

**time = time + burstTime[j];**

**min = burstTime[k];**

**for (int i = k; i < n; i++) {**

**if (time >= arrivaltime[i] && burstTime[i] < min) {**

**temp = process[k];**

**process[k] = process[i];**

**process[i] = temp;**

**temp = arrivaltime[k];**

**arrivaltime[k] = arrivaltime[i];**

**arrivaltime[i] = temp;**

**temp = burstTime[k];**

**burstTime[k] = burstTime[i];**

**burstTime[i] = temp;**

**}**

**}**

**k++;**

**}**

**waitingTime[0] = 0;**

**for (int i = 1; i < n; i++) {**

**sum = sum + burstTime[i - 1];**

**waitingTime[i] = sum - arrivaltime[i];**

**avgwt += waitingTime[i];**

**}**

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

**compTotal = compTotal + burstTime[i];**

**completionTime[i] = compTotal;**

**TAT[i] = compTotal - arrivaltime[i];**

**avgTAT += TAT[i];**

**}**

**System.out.println("\n\*\*\* Shortest Job First Scheduling (Non Preemptive) \*\*\*");**

**System.out.println("Processor\tArrival time\tBrust time\tCompletion Time\t\tTurn around time\tWaiting time");**

**System.out.println(**

**"----------------------------------------------------------------------------------------------------------");**

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

**System.out.println("P"+process[i] + "\t\t" + arrivaltime[i] + "ms\t\t" + burstTime[i] + "ms\t\t"+ completionTime[i] + "ms\t\t\t" + TAT[i] + "ms\t\t\t" + waitingTime[i] + "ms");**

**}**

**avgTAT /= n;**

**avgwt /= n;**

**System.out.println("\nAverage turn around time is " + avgTAT);**

**System.out.println("Average waiting time is " + avgwt);**

**}**

**}**

**OUTPUT: -**

\*\*\* Shortest Job First Scheduling (Non-Preemptive) \*\*\*

Enter no of process:5

Enter Arrival Time for processor 1:2

Enter Burst Time for processor 1: 6

Enter Arrival Time for processor 2:5

Enter Burst Time for processor 2: 2

Enter Arrival Time for processor 3:1

Enter Burst Time for processor 3: 8

Enter Arrival Time for processor 4:0

Enter Burst Time for processor 4: 3

Enter Arrival Time for processor 5:4

Enter Burst Time for processor 5: 4

\*\*\* Shortest Job First Scheduling (Non-Preemptive) \*\*\*

Processor Arrival time Brust time Completion Time Turn around time Waiting time

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P4 0ms 3ms 3ms 3ms 0ms

P1 2ms 6ms 9ms 7ms 1ms

P2 5ms 2ms 11ms 6ms 4ms

P5 4ms 4ms 15ms 11ms 7ms

P3 1ms 8ms 23ms 22ms 14ms

Average turn around time is 9.8

Average waiting time is 5.2