**6:FCFS**

**import** java.util.Scanner;

**public** **class** FCFS {

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

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

**int** n, temp;

**float** avgtat = 0, avgwt = 0;

System.***out***.println("\*\*\* First Come First Serve Scheduling \*\*\*");

System.***out***.print("Enter Number of Process: ");

n = sc.nextInt();

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

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

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

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

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

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

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

process[i] = (i + 1);

System.***out***.print("\nEnter 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 - 1; i++) {

**for** (**int** j = i + 1; 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** i = 0; i < n; i++) {

**if** (i == 0) {

completionTime[i] = arrivaltime[i] + burstTime[i];

} **else** {

**if** (arrivaltime[i] > completionTime[i - 1]) {

completionTime[i] = arrivaltime[i] + burstTime[i];

} **else** {

completionTime[i] = completionTime[i - 1] + burstTime[i];

}

}

}

System.***out***.println("\n\*\*\* First Come First Serve Scheduling \*\*\*");

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++) {

TAT[i] = completionTime[i] - arrivaltime[i];

waitingTime[i] = TAT[i] - burstTime[i];

avgtat += TAT[i];

avgwt += waitingTime[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");

}

System.***out***.println("\nAverage turn around time of processor: " + (avgtat / n)

+ "ms\nAverage waiting time of processor: " + (avgwt / n) + "ms");

sc.close();

}

}