**Priority:**

import java.util.Scanner;

public class Priority {

public static void main(String[] args) {

Scanner sn = new Scanner(System.in);

System.out.print("Enter the number of processes: ");

int n = sn.nextInt();

int process[] = new int[n]; // Process IDs

int priority[] = new int[n]; // Priority of processes

int burst[] = new int[n]; // Burst times

int completion[] = new int[n]; // Completion times

int WT[] = new int[n]; // Waiting times

int TAT[] = new int[n]; // Turnaround times

int sum = 0; // To track the completion time

float totalTAT = 0, totalWT = 0; // To calculate average TAT and WT

// Input burst times and priorities for each process

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

System.out.print("Enter Process " + (i + 1) + " Burst Time: ");

burst[i] = sn.nextInt();

System.out.print("Enter Process " + (i + 1) + " Priority: ");

priority[i] = sn.nextInt();

process[i] = i + 1;

}

// Sorting based on priority (higher priority first)

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

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

if (priority[i] < priority[j]) {

// Swap priority

int temp = priority[i];

priority[i] = priority[j];

priority[j] = temp;

// Swap process IDs

temp = process[i];

process[i] = process[j];

process[j] = temp;

// Swap burst times

temp = burst[i];

burst[i] = burst[j];

burst[j] = temp;

}

}

}

// Calculate completion times

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

sum += burst[i];

completion[i] = sum;

}

// Display table header

System.out.println("\nPriority\tProcess\tBurst Time\tCompletion\tWT\tTAT");

// Calculate WT, TAT and display for each process

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

TAT[i] = completion[i]; // TAT = Completion time (since arrival time is 0)

totalTAT += TAT[i]; // Add to total TAT

WT[i] = TAT[i] - burst[i]; // WT = TAT - Burst time

totalWT += WT[i]; // Add to total WT

// Display the details of the process

System.out.println(priority[i] + "\t\t" + process[i] + "\t\t" + burst[i] + "\t\t" + completion[i] + "\t\t" + WT[i] + "\t\t" + TAT[i]);

}

// Display average turnaround and waiting times

System.out.println("\nAverage Turn Around Time: " + (totalTAT / n));

System.out.println("Average Wait Time: " + (totalWT / n));

sn.close();

}

}