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import java.util.*;

public class PriorityScheduling {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.print("Enter number of processes: ");
        int n = sc.nextInt();

        int[] pid = new int[n];   // Process IDs
        int[] bt = new int[n];    // Burst times
        int[] pr = new int[n];    // Priorities
        int[] wt = new int[n];    // Waiting times
        int[] tat = new int[n];   // Turnaround times

        // Input burst times and priorities
        for (int i = 0; i < n; i++) {
            pid[i] = i + 1;
            System.out.print("Enter Burst Time for Process " + pid[i] + ": ");
            bt[i] = sc.nextInt();
            System.out.print("Enter Priority for Process " + pid[i] + ": ");
            pr[i] = sc.nextInt();
        }
        // Sort by priority (lower number = higher priority)
        for (int i = 0; i < n - 1; i++) {
            for (int j = 0; j < n - i - 1; j++) {
                if (pr[j] > pr[j + 1]) {
                    // swap priority
                    int temp = pr[j]; pr[j] = pr[j + 1]; pr[j + 1] = temp;
                    // swap burst time
                    temp = bt[j]; bt[j] = bt[j + 1]; bt[j + 1] = temp;
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            // swap process id
            temp = pid[j]; pid[j] = pid[j + 1]; pid[j + 1] = temp;
          }
        }
      }

      wt[0] = 0;
      for (int i = 1; i < n; i++)
        wt[i] = wt[i - 1] + bt[i - 1];

      float totalWT = 0, totalTAT = 0;
      System.out.println("\nPID\tBT\tPR\tWT\tTAT");
      for (int i = 0; i < n; i++) {
        tat[i] = bt[i] + wt[i];
        totalWT += wt[i];
        totalTAT += tat[i];
        System.out.printf("P%d\t%d\t%d\t%d\t%d%n", pid[i], bt[i], pr[i], wt[i], tat[i]);
      }

      System.out.printf("\nAverage Waiting Time: %.2f", totalWT / n);
      System.out.printf("\nAverage Turnaround Time: %.2f%n", totalTAT / n);

      sc.close();
    }
}
```