FCFS

import java.io.\*;  
  
public class FCFS {  
 public static void main(String[] args) throws Exception {  
 int n, AT[], BT[], WT[], TAT[], CT; // Removed CT array for completion time  
 int currentTime = 0; // Added a variable to keep track of the current time  
 float AWT = 0;  
 InputStreamReader isr = new InputStreamReader(System.in);  
 BufferedReader br = new BufferedReader(isr);  
  
 System.out.println("Enter the number of processes");  
 n = Integer.parseInt(br.readLine());  
  
 BT = new int[n];  
 WT = new int[n];  
 TAT = new int[n];  
 AT = new int[n];  
  
 System.out.println("Enter Arrival time and Burst time for each process\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  
 for (int i = 0; i < n; i++) {  
 System.out.println("Process " + (i + 1));  
 System.out.print("AT: ");  
 AT[i] = Integer.parseInt(br.readLine());  
 System.out.print("BT: ");  
 BT[i] = Integer.parseInt(br.readLine());  
 }  
  
 System.out.println("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  
  
 WT[0] = 0;  
 CT = AT[0] + BT[0]; // Initialize the completion time for the first process  
  
 for (int i = 1; i < n; i++) {  
 WT[i] = CT - AT[i]; // Calculate waiting time  
 if (WT[i] < 0) {  
 WT[i] = 0;  
 }  
 CT += BT[i]; // Update completion time  
 }  
  
 for (int i = 0; i < n; i++) {  
 TAT[i] = WT[i] + BT[i];  
 AWT = AWT + WT[i];  
 }  
  
 System.out.println("Procedure AT BT CT TAT WT");  
 for (int i = 0; i < n; i++) {  
 System.out.println(i + " " + AT[i] + " " + BT[i] + " " + (AT[i] + TAT[i]) + " " + TAT[i] + " " + WT[i]);  
 }  
  
 AWT = AWT / n;  
 System.out.println("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  
 System.out.println("Avg waiting time=" + AWT + "\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  
 }  
}