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1  #include <stdio.h>
2  int main() {
3      int at[10], bt[10], pr[10];
4      int n, i, j, temp, time = 0, count, over = 0;
5      int sum_wait = 0, sum_turnaround = 0, start;
6      float avgwait, avgturn;
7      printf("Enter the number of processes: ");
8      scanf("%d", &n);
9      for (i = 0; i < n; i++) {
10         printf("Enter the arrival time and burst time for process %d: ", i + 1);
11         scanf("%d%d", &at[i], &bt[i]);
12         pr[i] = i + 1;
13     }
14     for (i = 0; i < n - 1; i++) {
15         for (j = i + 1; j < n; j++) {
16             if (at[i] > at[j]) {
17                 temp = at[i]; at[i] = at[j]; at[j] = temp;
18                 temp = bt[i]; bt[i] = bt[j]; bt[j] = temp;
19                 temp = pr[i]; pr[i] = pr[j]; pr[j] = temp;
20             }
21         }
22     }
23     printf("\n\nProcess\t| Arrival\t| Burst\t| Start\t| End\t| Waiting\t| Turnaround\n\n");
24     while (over < n) {
25         count = 0;
26         for (i = over; i < n; i++) {
27             if (at[i] <= time)
28                 count++;
29             else
30                 break;
31         }

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32 if (count > 1) {
33     for (i = over; i < over + count - 1; i++) {
34         for (j = i + 1; j < over + count; j++) {
35             if (bt[i] > bt[j]) {
36                 temp = bt[i]; bt[i] = bt[j]; bt[j] = temp;
37                 temp = at[i]; at[i] = at[j]; at[j] = temp;
38                 temp = pr[i]; pr[i] = pr[j]; pr[j] = temp;
39             }
40         }
41     }
42 }
43 start = time;
44 time += bt[over];
45 printf("P[%d]\t|\t%d\t|\t%d\t|\t%d\t|\t%d\t|\t%d\t|\t%d\t|\t%d\n",
46        pr[over], at[over], bt[over], start, time,
47        time - at[over] - bt[over],
48        time - at[over]);
49 sum_wait += time - at[over] - bt[over];
50 sum_turnaround += time - at[over];
51 over++;
52 }
53 avgwait = (float) sum_wait / n;
54 avgturn = (float) sum_turnaround / n;
55 printf("\nAverage Waiting Time = %.2f", avgwait);
56 printf("\nAverage Turnaround Time= %.2f\n", avgturn);
57 return 0;
58 }

```

Enter the number of processes: 3
 Enter the arrival time and burst time for process 1: 0
 5
 Enter the arrival time and burst time for process 2: 1
 3
 Enter the arrival time and burst time for process 3: 2
 8

Process	Arrival	Burst	Start	End	Waiting	Turnaround
P[1]	0	5	0	5	0	5
P[2]	1	3	5	8	4	7
P[3]	2	8	8	16	6	14

Average Waiting Time = 3.33
 Average Turnaround Time= 8.67