

PRIORITY:

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#include <stdio.h>
#include <string.h>
struct Process {
    char name[10];
    int at, bt, prio, wt, tt, done;
};
int main() {
    int n, time = 0, done = 0, i, min_idx;
    struct Process p[100];
    float total_wt = 0, total_tt = 0;
    printf("Enter number of processes: ");
    scanf("%d", &n);
    for (i = 0; i < n; i++) {
        printf("Enter name, arrival time, burst time, priority of process %d: ", i+1);
        scanf("%s %d %d %d", p[i].name, &p[i].at, &p[i].bt, &p[i].prio);
        p[i].wt = p[i].tt = p[i].done = 0;
    }
    while (done != n) {
        min_idx = -1;
        for (i = 0; i < n; i++)
            if (p[i].at <= time && !p[i].done)
                if (min_idx == -1 || p[i].prio < p[min_idx].prio)
                    min_idx = i;
        if (min_idx == -1) {
            time++;
        } else {
            p[min_idx].wt = time - p[min_idx].at;
            time += p[min_idx].bt;
            p[min_idx].tt = p[min_idx].wt + p[min_idx].bt;
            p[min_idx].done = 1;
            total_wt += p[min_idx].wt;
            total_tt += p[min_idx].tt;
            done++;
        }
    }
    printf("\nName\tAT\tBT\tPriority\tWT\tTT\n");
    for (i = 0; i < n; i++)
        printf("%s\t%d\t%d\t%d\t%.2f\t%.2f\n", p[i].name, p[i].at, p[i].bt, p[i].prio, p[i].wt, p[i].tt);
    printf("\nAvg WT = %.2f\nAvg TT = %.2f\n", total_wt/n, total_tt/n);
    return 0;
}
```

```
Enter number of processes: 3
Enter name, arrival time, burst time, priority of process 1: A
5
3
2
Enter name, arrival time, burst time, priority of process 2: B
6
2
5
Enter name, arrival time, burst time, priority of process 3: C
1
4
4
```

Name	AT	BT	Priority	WT	TT
A	5	3	2	0	3
B	6	2	5	2	4
C	1	4	4	0	4