

```
#include <stdio.h>
```

```
typedef struct Process {
```

```
    int pid;
```

```
    int AT;
```

```
    int BT;
```

```
    int CT;
```

```
    int TAT;
```

```
    int WT;
```

```
    int rem_tim;
```

```
} Process;
```

```
Process P[100], temp;
```

```
int n, q;
```

```
int main() {
```

```
    printf("Enter the number of processors:\n");
```

```
    scanf("%d", &n);
```

```
    printf("Enter the quantum time\n");
```

```
    scanf("%d", &q);
```

```
    printf("Enter the PID, Arrival time, and burst time for each process\n");
```

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

```
        printf("%d.", i + 1);
```

```
        scanf("%d%d%d", &P[i].pid, &P[i].AT, &P[i].BT);
```

```
        P[i].rem_tim = P[i].BT;
```

```
    }
```

```
    int c = 0;
```

```
    int rem_proc = n;
```

```
    while (rem_proc > 0) {
```

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

```

    if (P[i].rem_tim > 0) {
        if (P[i].rem_tim <= q) {
            c += P[i].rem_tim;
            P[i].rem_tim = 0;
            P[i].CT = c;
        } else {
            c += q;
            P[i].rem_tim -= q;
            P[i].CT = c;
        }
    }
    if (P[i].rem_tim == 0) {
        rem_proc--;
    }
}

for (int i = 0; i < n; i++) {
    P[i].TAT = P[i].CT - P[i].AT;
    P[i].WT = P[i].TAT - P[i].BT;
}

printf("PID\tAT\tBT\tCT\tTAT\tWT\n");
for (int i = 0; i < n; i++) {
    printf("%d\t%d\t%d\t%d\t%d\t%d\n", P[i].pid, P[i].AT, P[i].BT, P[i].CT, P[i].TAT, P[i].WT);
}

for(int i=0;i<n;i++)
{
    sum1+=P[i].TAT;
    sum2+=P[i].WT;
}

double avg1=0.0,avg2=0.0;

```

```
avg1=sum1/double(n);  
avg2=sum2/double(n);  
printf("Average of TAT is %1fms\n",avg1);  
printf("Average of WT is %1fms",avg2);  
  
return 0;  
}
```