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Q.1

```
#include<stdio.h>
int main()
{
    int arrival_time[10], burst_time[10], temp[10];
    int i, smallest, count = 0, time, limit;
    double wait_time = 0, turnaround_time = 0, end;
    float average_waiting_time, average_turnaround_time;
    printf("\n Enter the total Number of Processes : t");
    scanf("%d", &limit);
    printf("\n Enter Details of %d Processes\n", limit);
    for(i=0; i<limit; i++)
    {
        printf("\n Enter Arrival Time : t");
        scanf("%d", &arrival_time[i]);
        printf("Enter Burst Time : t");
        scanf("%d", &burst_time[i]);
        temp[i] = burst_time[i];
    }
    burst_time[9] = 9999;
    for(time = 0; count != limit; time++)
    {
        smallest = 9;
        for(i=0; i<limit; i++)
```

```
{

    if(arrival_time[i] <= time && burst_time[i] < burst_time[smallest] &&
      burst_time[i] > 0)
    {
        smallest = i;
    }
}

    burst_time[smallest]--;
    if(burst_time[smallest] == 0)
    {
        count++;
        end = time + 1;
        wait_time = wait_time + end - arrival_time[smallest] - temp[smallest];
        turnaround_time
        = turnaround_time + end - arrival_time[smallest];
    }

}
    average_waiting_time = wait_time / limit;
    average_turnaround_time = turnaround_time / limit;
    printf("\n\nAverage Waiting Time: %f\n", average_waiting_time);
    printf("\n Average Turnaround Time: %f\n", average_turnaround
            _time);
    return 0;

}
```

"D:\Workspace\program files\Programming.exe"

```
Enter the Total Number of Processes:4

Enter Details of 4 Processes

Enter Arrival Time:     0
Enter Burst Time:       10

Enter Arrival Time:     0
Enter Burst Time:       2

Enter Arrival Time:     0
Enter Burst Time:       1

Enter Arrival Time:     0
Enter Burst Time:       4


Average Waiting Time:   2.750000
Average Turnaround Time:        7.000000

Process returned 0 (0x0)   execution time : 20.464 s
Press any key to continue.
```