

OS LAB WEEK 3

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Q: SRTF or SJF Preemptive using C

#include <stdio.h>

```
int main()
{
    int a[10],b[10],x[10],i,j,smallest,count=0,time,n;
    double avg=0,tt=0,end;
    printf("enter the number of Processes:\n");
    scanf("%d",&n);
    printf("enter arrival time\n");
    for(i=0;i<n;i++)
        scanf("%d",&a[i]);
    printf("enter burst time\n");
    for(i=0;i<n;i++)
        scanf("%d",&b[i]);
    for(i=0;i<n;i++)
        x[i]=b[i];

    b[9]=9999;

    for(time=0;count!=n;time++)
    {
```

```

    smallest=9;
    for(i=0;i<n;i++)
    {
        if(a[i]<=time && b[i]<b[smallest] && b[i]>0 )
            smallest=i;
    }
    b[smallest]--;
    if(b[smallest]==0)
    {
        count++;
        end=time+1;
        avg=avg+end-a[smallest]-x[smallest];
        tt= tt+end-a[smallest];
    }
}
printf("\n\nAverage waiting time = %lf\n",avg/n);
    printf("Average Turnaround time = %lf",tt/n);
    return 0;
}

```

Output:-

```
enter the number of Processes:
6
enter arrival time
0
0
3
5
7
3
enter burst time
8
9
3
4
10
12

Average waiting time = 11.833333
Average Turnaround time = 19.500000

...Program finished with exit code 0
Press ENTER to exit console. 
```