

EXP 4

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#include<stdio.h>
int main()
{
    int bt[20],p[20],wt[20],tat[20],i,j,n,total=0,pos,temp;
    float avg_wt,avg_tat;
    printf("Enter number of process:");
    scanf("%d",&n);

    printf("\nEnter Burst Time:n");
    for(i=0;i<n;i++)
    {
        printf("p%d:",i+1);
        scanf("%d",&bt[i]);
        p[i]=i+1;
    }

    //sorting of burst times
    for(i=0;i<n;i++)
    {
        pos=i;
        for(j=i+1;j<n;j++)
        {
            if(bt[j]<bt[pos])
                pos=j;
        }

        temp=bt[i];
        bt[i]=bt[pos];
        bt[pos]=temp;

        temp=p[i];
        p[i]=p[pos];
        p[pos]=temp;
    }

    wt[0]=0;

    for(i=1;i<n;i++)
    {
        wt[i]=0;
        for(j=0;j<i;j++)
            wt[i]+=bt[j];

        total+=wt[i];
    }

    avg_wt=(float)total/n;
    total=0;
```

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printf("\nProcess\t\t Burst Time\t\t tWaiting Time\tTurnaround Time");
for(i=0;i<n;i++)
{
    tat[i]=bt[i]+wt[i];
    total+=tat[i];
    printf("\nProcess\t\t Burst Time\t\t tWaiting Time\tTurnaround Time",p[i],bt[i],wt[i],tat[i]);
}

avg_tat=(float)total/n;
printf("\nAverage Waiting Time=%f",avg_wt);
printf("\nAverage Turnaround Time=%f",avg_tat);

```

```

Enter total number of processes(maximum 20):3
Enter Process Burst Time:5
P[2]:8
P[3]:2
Process\t\tBurst Time\tWaiting Time\tTurnaround Time\tP[1]\t5\t0\t5\tP[2]\t8\t5\t13\tP[3]\t2\t13\t15\t\n\nAverage Waiting Time:6\nAverage Turnaround Time:11
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Process exited after 4.344 seconds with return value 0
Press any key to continue . . .

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