

OPERATING SYSTEM - CS23431

EXP 6(a)

FCFS

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PROGRAM:

```
#include <stdio.h>
int main() {
    int n, i; printf("Enter number of processes: "); scanf("%d", &n);
    int bt[n], wt[n], tat[n];

    printf("\nEnter burst time for each process:\n");
    for (i = 0; i < n; i++) {
        printf("P[%d]: ", i + 1);
        scanf("%d", &bt[i]);
    }

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

    for (i = 0; i < n; i++) {
        tat[i] = bt[i] + wt[i];
    }

    int total_wt = 0, total_tat = 0;
    for (i = 0; i < n; i++) {
        total_wt += wt[i];
        total_tat += tat[i];
    }

    printf("\nProcess\tBurst Time\tWaiting Time\tTurnaround Time\n");
    for (i = 0; i < n; i++) {
        printf("P[%d]\t\t%5d\t\t%5d\t\t%5d\n",
            i + 1, bt[i], wt[i], tat[i]);
    }

    printf("\nTotal waiting time   = %d\n", total_wt);
    printf("Total turnaround time = %d\n", total_tat);
}
```

```
printf("Average waiting time  = %.2f\n", (float)total_wt / n);  
printf("Average turnaround time = %.2f\n", (float)total_tat / n);
```

```
return 0;
```

```
}
```

OUTPUT:

```
Average turn around time is: 27  
[student@localhost ~]$ vi fcfs164.c  
[student@localhost ~]$ gcc fcfs164.c  
[student@localhost ~]$ ./a.out  
Enter number of process: 3  
  
Enter burst time for each process: 24  
3  
3  
Process  Burst time  Waiting time  Turn Around Time  
0  24  0  24  
1  3  24  27  
2  3  27  30  
  
Total waiting time is: 51  
Total turn around time is: 81  
Average waiting time is: 17  
Average turn around time is: 27  
[student@localhost ~]$ █
```