

CS23431 - OPERATING SYSTEM

EXP 6(A) - FIRST COME FIRST SERVE

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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%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:

```
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
```