

```
//Shortest job first (SJF)
```

```
#include <stdio.h>
```

```
#include <string.h>
```

```
typedef struct process {
```

```
    char pname[10];
```

```
    int burst;
```

```
    int wt;
```

```
    int rt;
```

```
    int tat;
```

```
} p1;
```

```
int main() {
```

```
    p1 p[10];
```

```
    float avg_tat = 0;
```

```
    float avg_wt = 0;
```

```
    float avg_rt = 0;
```

```
    int n;
```

```
    printf("\n ENTER THE NUMBER OF PROCESS :");
```

```
    scanf("%d", &n);
```

```
    for (int i = 0; i < n; i++) {
```

```
        p[i].pname[0] = 'p';
```

```
        p[i].pname[1] = i;
```

```
        p[i].pname[2] = '\0';
```

```
        printf("\nENTER THE BURST TIME:");
```

```
        scanf("%d", &p[i].burst);
```

```
    }
```

```
    for (int i = 0; i < n; i++) {
```

```
        for (int j = i + 1; j < n; j++) {
```

```
            if (p[i].burst > p[j].burst) {
```

```
                p1 swap = p[i];
```

```
                p[i] = p[j];
```

```
                p[j] = swap;
```

```
            }
```

```
        }
```

```
    }
```

```

for (int i = 0; i < n; i++) {
    p[i].wt = avg_rt;
    p[i].rt = p[i].wt;
    p[i].tat = p[i].burst + p[i].wt;
    avg_tat = avg_tat + p[i].tat;
    avg_rt = avg_rt + p[i].burst;
}

avg_wt = 0;
for (int i = 0; i < n; i++) {
    avg_wt = p[i].wt + avg_wt;
}
avg_wt = avg_wt / n;
avg_tat = avg_tat / n;

printf("\nAVERAGE WAITING TIME:%f", avg_wt);
printf("\nAVERAGE TURN AROUND TIME :%f", avg_tat);

return 0;
}

```