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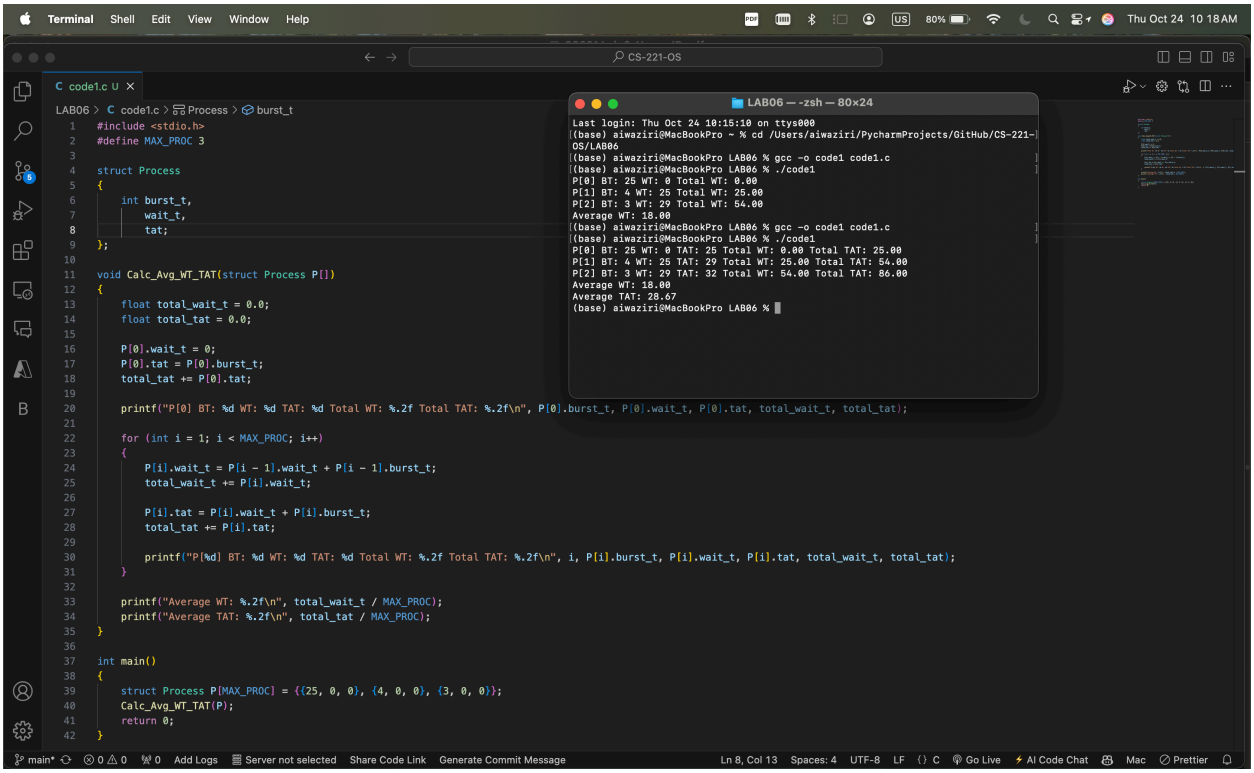
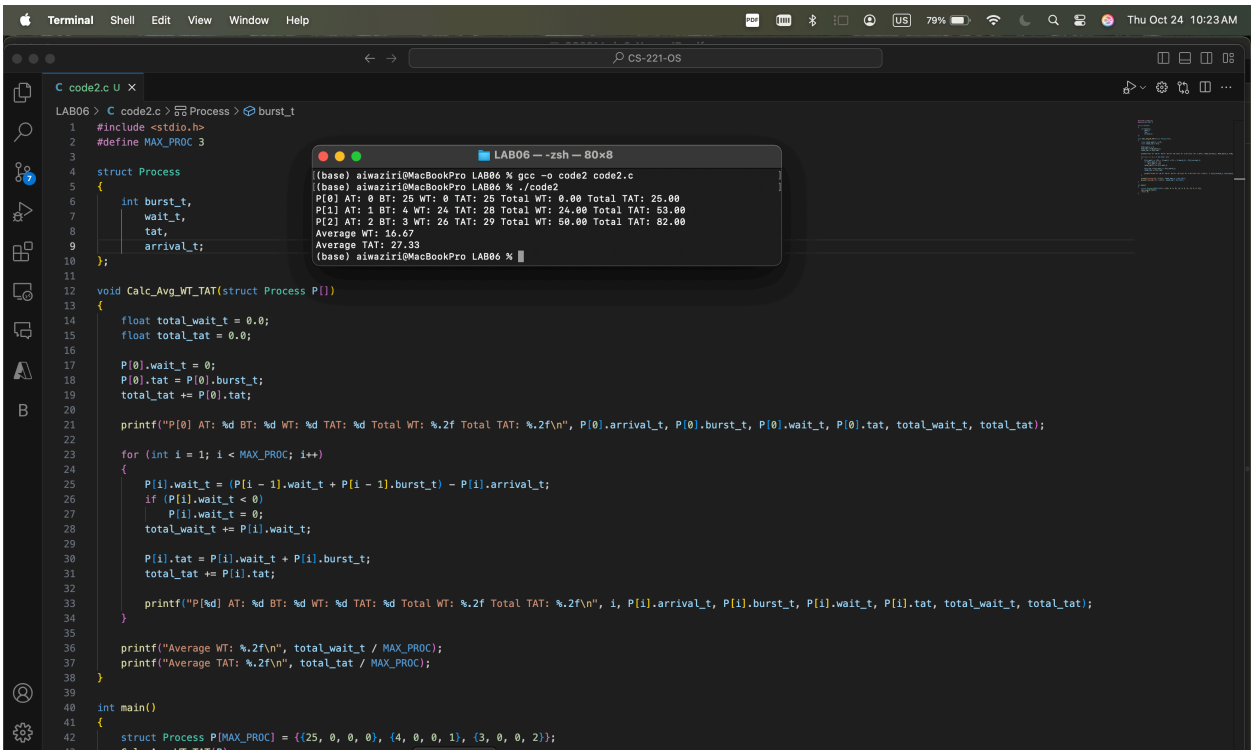
LAB06

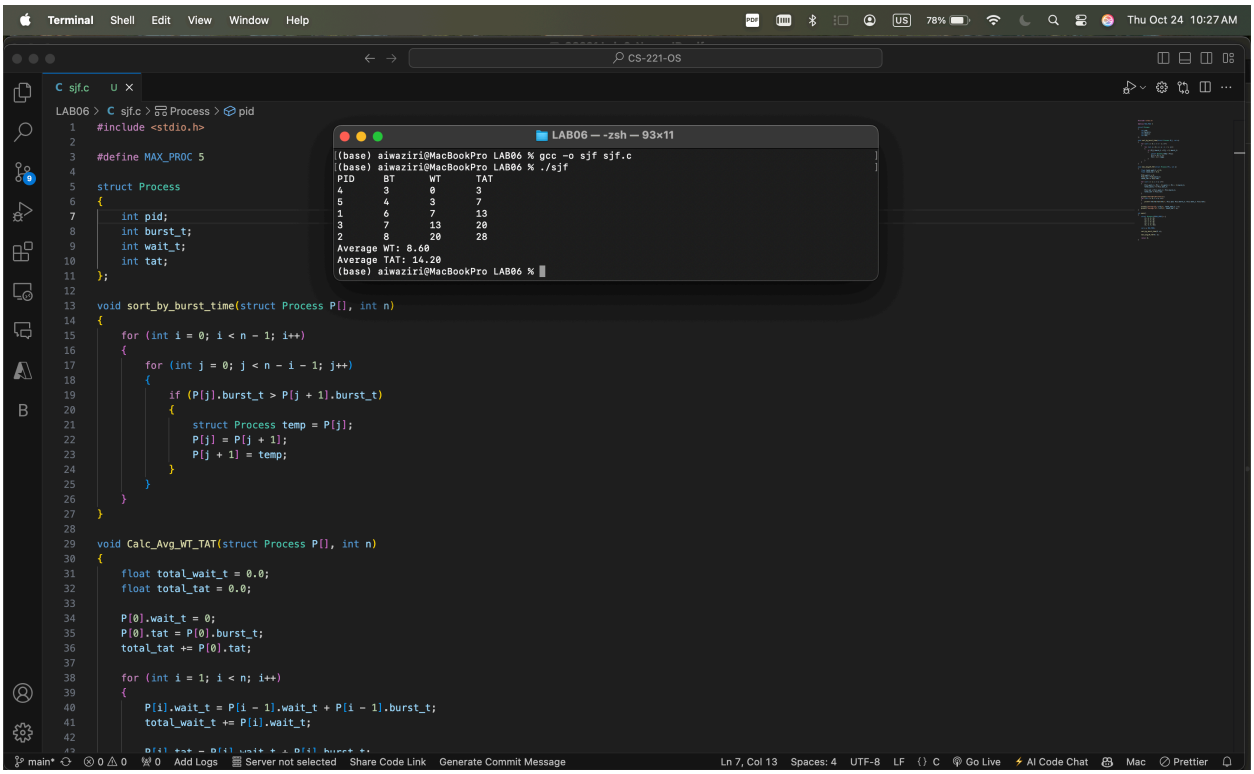
Q1:



Q2:


Terminal Shell Edit View Window Help
Thu Oct 24 10:23 AM
CS-221-OS
code2.c U
LAB06 > code2.c > Process > burst_t
#include <stdio.h>
#define MAX_PROC 3
struct Process
{
int burst_t,
wait_t,
tat,
arrival_t;
};
void Calc_Avg_WT_TAT(struct Process P[])
{
float total_wait_t = 0.0;
float total_tat = 0.0;
P[0].wait_t = 0;
P[0].tat = P[0].burst_t;
total_tat += P[0].tat;
printf("P[0] AT: %d BT: %d WT: %d TAT: %d Total WT: %.2f Total TAT: %.2f\n", P[0].arrival_t, P[0].burst_t, P[0].wait_t, P[0].tat, total_wait_t, total_tat);
for (int i = 1; i < MAX_PROC; i++)
{
P[i].wait_t = (P[i - 1].wait_t + P[i - 1].burst_t) - P[i].arrival_t;
if (P[i].wait_t < 0)
P[i].wait_t = 0;
total_wait_t += P[i].wait_t;
P[i].tat = P[i].wait_t + P[i].burst_t;
total_tat += P[i].tat;
printf("P[%d] AT: %d BT: %d WT: %d TAT: %d Total WT: %.2f Total TAT: %.2f\n", i, P[i].arrival_t, P[i].burst_t, P[i].wait_t, P[i].tat, total_wait_t, total_tat);
}
printf("Average WT: %.2f\n", total_wait_t / MAX_PROC);
printf("Average TAT: %.2f\n", total_tat / MAX_PROC);
}
int main()
{
struct Process P[MAX_PROC] = {{25, 0, 0, 0}, {4, 0, 0, 1}, {3, 0, 0, 2}};
LAB06 — -zsh — 80×8
(base) aiwaziri@MacBookPro LAB06 % gcc -o code2 code2.c
(base) aiwaziri@MacBookPro LAB06 % ./code2
P[0] AT: 0 BT: 25 WT: 0 TAT: 25 Total WT: 0.00 Total TAT: 25.00
P[1] AT: 1 BT: 4 WT: 24 TAT: 28 Total WT: 24.00 Total TAT: 53.00
P[2] AT: 2 BT: 3 WT: 26 TAT: 29 Total WT: 50.00 Total TAT: 82.00
Average WT: 16.67
Average TAT: 27.33
(base) aiwaziri@MacBookPro LAB06 %

Q3:


Terminal Shell Edit View Window Help
Thu Oct 24 10:27 AM
CS-221-OS
sjf.c
LAB06 > sjf.c > Process > pid
#include <stdio.h>
#define MAX_PROC 5
struct Process
{
int pid;
int burst_t;
int wait_t;
int tat;
};
void sort_by_burst_time(struct Process P[], int n)
{
for (int i = 0; i < n - 1; i++)
{
for (int j = 0; j < n - i - 1; j++)
{
if (P[j].burst_t > P[j + 1].burst_t)
{
struct Process temp = P[j];
P[j] = P[j + 1];
P[j + 1] = temp;
}
}
}
}
void Calc_Avg_WT_TAT(struct Process P[], int n)
{
float total_wait_t = 0.0;
float total_tat = 0.0;
P[0].wait_t = 0;
P[0].tat = P[0].burst_t;
total_tat += P[0].tat;
for (int i = 1; i < n; i++)
{
P[i].wait_t = P[i - 1].wait_t + P[i - 1].burst_t;
total_wait_t += P[i].wait_t;
LAB06 — -zsh — 93×11
(base) aiwaziri@MacBookPro LAB06 % gcc -o sjf sjf.c
(base) aiwaziri@MacBookPro LAB06 % ./sjf
PID BT WT TAT
4 3 0 3
5 4 3 7
1 6 7 13
3 7 13 20
2 8 20 28
Average WT: 8.60
Average TAT: 14.20
(base) aiwaziri@MacBookPro LAB06 %
main* Add Logs Server not selected Share Code Link Generate Commit Message
Ln 7, Col 13 Spaces: 4 UTF-8 LF C Go Live AI Code Chat Mac Prettier