17.CPU burst times

#include <stdio.h>

int main(){

int numProcesses = 3;

int burstTime[] = {24, 3, 3};

int quantum = 4;

int remainingTime[numProcesses];

int waitingTime[numProcesses], turnaroundTime[numProcesses];

int i;

for (i = 0; i < numProcesses; i++) {

remainingTime[i] = burstTime[i];

waitingTime[i] = 0;

turnaroundTime[i] = 0;

}

int time = 0;

while (1) {

int allProcessesCompleted = 1;

for (i = 0; i < numProcesses; i++) {

if (remainingTime[i] > 0) {

allProcessesCompleted = 0;

if (remainingTime[i] > quantum) {

time += quantum;

remainingTime[i] -= quantum;

} else {

time += remainingTime[i];

waitingTime[i] = time - burstTime[i];

remainingTime[i] = 0;

}

}

}

if (allProcessesCompleted == 1) {

break;

}

}

for (i = 0; i < numProcesses; i++) {

turnaroundTime[i] = burstTime[i] + waitingTime[i];

}

float totalWaitingTime = 0, totalTurnaroundTime = 0;

for (i = 0; i < numProcesses; i++) {

totalWaitingTime += waitingTime[i];

totalTurnaroundTime += turnaroundTime[i];

}

printf("Average waiting time: %f\n", totalWaitingTime/numProcesses);

printf("Average turnaround time: %f\n", totalTurnaroundTime/numProcesses);

return 0;

}

OUTPUT

