Round Robin scheduling

#include <stdio.h>

int main() {

int n, i, time = 0, tq;

int bt[20], rt[20], wt[20], tat[20], completed = 0;

float avg\_wt = 0, avg\_tat = 0;

printf("Enter number of processes: ");  
 scanf("%d", &n);

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

printf("Enter burst time for process %d: ", i + 1);

scanf("%d", &bt[i]);

rt[i] = bt[i]; // Initialize remaining time

}

printf("Enter time quantum: ");

scanf("%d", &tq);

while (1) {

int done = 1;

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

if (rt[i] > 0) {

done = 0;

if (rt[i] > tq) {

time += tq;

rt[i] -= tq;

} else {

time += rt[i];

wt[i] = time - bt[i];

tat[i] = time;

rt[i] = 0;

}

}

}

if (done == 1)

break;

}

printf("\nProcess\tBurst\tWaiting\tTurnaround\n");

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

avg\_wt += wt[i];

avg\_tat += tat[i];

printf("P%d\t%d\t%d\t%d\n", i + 1, bt[i], wt[i], tat[i]);

}

printf("\nAverage Waiting Time = %.2f", avg\_wt / n);

printf("\nAverage Turnaround Time = %.2f\n", avg\_tat / n);

return 0;

}