**EXPERIMENT: 08** To Construct a C program to simulate Round Robin scheduling algorithm with C.

**PROGRAM:**

#include <stdio.h>

int main() {

int n, tq, bt[10], rem[10], wt[10], tat[10], ct[10];

int t = 0, done = 0;

printf("Enter number of processes: ");

scanf("%d", &n);

printf("Enter time quantum: ");

scanf("%d", &tq);

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

printf("Burst time of P%d: ", i+1);

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

rem[i] = bt[i];

}

while (done < n) {

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

if (rem[i] > 0) {

if (rem[i] > tq) {

t += tq;

rem[i] -= tq;

} else {

t += rem[i];

rem[i] = 0;

ct[i] = t;

tat[i] = ct[i]; // AT = 0 for all

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

done++;

}

}

}

}

float awt=0, atat=0;

printf("\nP\tBT\tCT\tTAT\tWT\n");

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

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

awt += wt[i]; atat += tat[i];

}

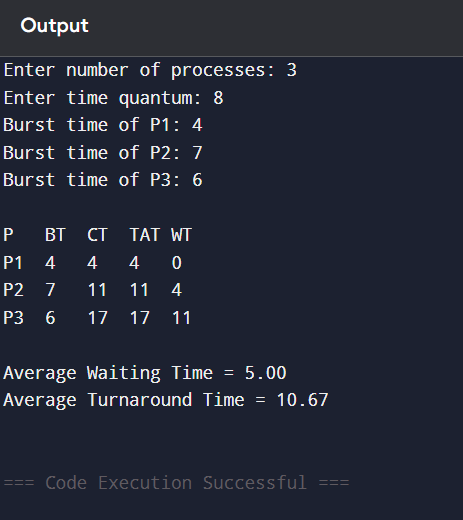
printf("\nAverage Waiting Time = %.2f", awt/n);

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

return 0;

}

**OUTPUT:**

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