**EXPERIMENT: 06** ToConstruct a C program to implement preemptive priority scheduling algorithm

**PROGRAM:**

#include <stdio.h>

int main() {

int n, t = 0, done = 0;

printf("Enter no. of processes: ");

scanf("%d", &n);

int at[n], bt[n], pr[n], rt[n], ct[n], wt[n], tat[n];

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

printf("P%d AT BT PR: ", i+1);

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

rt[i] = bt[i];

}

while (done < n) {

int idx = -1, best = 9999;

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

if (at[i] <= t && rt[i] > 0 && pr[i] < best)

best = pr[i], idx = i;

if (idx != -1) {

rt[idx]--; t++;

if (rt[idx] == 0) {

ct[idx] = t;

tat[idx] = ct[idx] - at[idx];

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

done++;

}

} else t++;

}

float awt=0, atat=0;

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

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

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

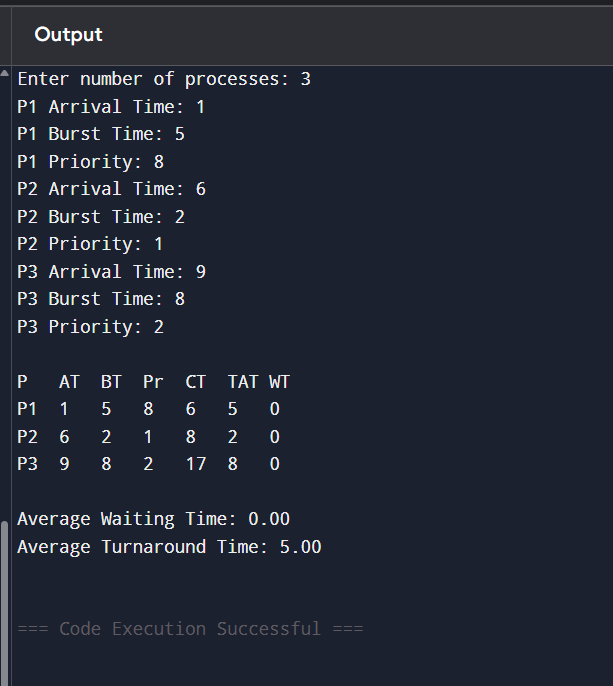
awt += wt[i]; atat += tat[i];

}

printf("\nAvg WT=%.2f, Avg TAT=%.2f\n", awt/n, atat/n);

}

**OUTPUT:**

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