Experiment -5

#include <stdio.h>

struct Process {

int pid, bt, priority;

};

int main() {

int n;

printf("Enter number of processes: ");

scanf("%d", &n);

struct Process p[n];

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

p[i].pid = i + 1;

printf("Enter Burst Time and Priority of P%d: ", i + 1);

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

}

// Sort by priority (higher value = higher priority)

for (int i = 0; i < n - 1; i++) {

for (int j = i + 1; j < n; j++) {

if (p[i].priority < p[j].priority) {

struct Process temp = p[i];

p[i] = p[j];

p[j] = temp;

}

}

}

int wt = 0, tat = 0, totalWT = 0, totalTAT = 0;

printf("\nProcess\tBT\tPriority\tWT\tTAT\n");

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

tat = wt + p[i].bt;

printf("P%d\t%d\t%d\t\t%d\t%d\n", p[i].pid, p[i].bt, p[i].priority, wt, tat);

totalWT += wt;

totalTAT += tat;

wt += p[i].bt;

}

printf("\nAverage WT = %.2f", (float)totalWT / n);

printf("\nAverage TAT = %.2f\n", (float)totalTAT / n);

return 0;

}