**ALGORITH**

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**정유석**

**CODE**

#include<stdio.h>

#include<stdlib.h>

#define MAX\_JOB 1000 //Max number of job

typedef struct{ //Dressmaker structure

int time, panalty, number;

float value;

}dressmaker;

dressmaker d[MAX\_JOB];

void swap(int, int); //Swap funtion (It make a sequence)

void main(){

int i, j, k ,cnt=0, min, min\_N;

int sequence[MAX\_JOB];

int t\_time, t\_panalty, t\_number;

for(k=0; k<3; k++){

//Receive number of jobs

printf("Input the number of job : ");

scanf("%d",&cnt);

fflush(stdin);

while(!(cnt>=0 && cnt<=1000)){ //Exception

printf("Re Input the number of job ! ( 0<=n<=1000 ) : ");

scanf("%d",&cnt);

fflush(stdin);

}

printf("Input DAY and PANALTY each jobs : \n");

for(i=0; i<cnt; i++){ //Receive the day and panalty

scanf("%d %d",&d[i].time,&d[i].panalty);

fflush(stdin);

d[i].value = (float)d[i].panalty / d[i].time; //store the value of each cost

d[i].number = i+1;

}

for(i=0; i<cnt; i++){// Bubble sort

for(j=0; j<cnt-1; j++){ //Re organize sequence of cost

if(d[j].value < d[j+1].value)

swap(j,j+1);

if(d[j].value == d[j+1].value){

if(d[j].time > d[j+1].time)

swap(j,j+1);

}

}

}

printf("\n ----------Path----------\n");

for(i=0; i<cnt; i++){ //Print

printf("%d ",d[i].number);

}

printf("\n");

}

}

void swap(int i, int j){

int t\_time, t\_panalty, t\_number;

float t\_value;

t\_time = d[i].time;

t\_panalty = d[i].panalty;

t\_number = d[i].number;

t\_value = d[i].value;

d[i].time = d[j].time;

d[i].panalty = d[j].panalty;

d[i].number = d[j].number;

d[i].value = d[j].value;

d[j].number = t\_number;

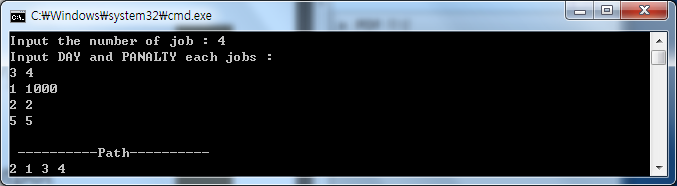
d[j].time = t\_time;

d[j].panalty = t\_panalty;

d[j].value = t\_value;

}

**PRINT**

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