201533661 이승수’s homework#5 date: 2016.10.05

<code>.

#include <stdio.h>

#include <stdlib.h>

struct request{

int job;

int penalty;

}Job[100];

FILE \*inF, \*outF;

void swap(int \*a, int \*b);

void main()

{

int jobNum = 0;

float dailyPenalty[100] = {0};//penalty for each day

int index[100] = {0};//store index ofjobs

inF = fopen("input#1.txt","r");

fscanf(inF,"%d",&jobNum);

for (int i = 1; i <= jobNum; i++)

{

fscanf(inF,"%d %d",&Job[i].job,&Job[i].penalty);

}

fclose(inF);

for (int i = 1; i <= jobNum; i++)/\*compute dailyPenalty and store index of each jobs\*/

{

dailyPenalty[i] = (float)Job[i].penalty / Job[i].job;

index[i] = i;

}

for (int i = 1; i <= jobNum; i++)/\*sort index array by dailyPenalty\*/

{

for (int j = jobNum; j >i; j--)

{

if (dailyPenalty[index[j - 1]] < dailyPenalty[index[j]])

swap(&index[j - 1], &index[j]);

else if (dailyPenalty[index[j - 1]] == dailyPenalty[index[j]] && Job[index[j - 1]].job > Job[index[j]].job)

swap(&index[j-1],&index[j]);

}

}

outF = fopen("output#1.txt","w");

for (int i = 1; i <= jobNum; i++)

{

fprintf(outF,"%d ", index[i]);

}

fclose(outF);

}

void swap(int \*a, int \*b)

{

int temp;

temp = \*a;

\*a = \*b;

\*b = temp;

}