Program 6-1

Sollin's Algorithm

本章節的程式作業是要實現 Sollin's Algorithm.輸入會是一個 adjacency matrix 用來表示 input 的無向圖長相.輸出請將建好的 minimum cost spanning tree 的各 edge 依照權重值由小到大排序輸出.詳見 sample input 和 sample output.

註 ： 所有的 input 將會由一個 blank 或是\n 隔開,所有的 input 數字將會為正整數且不超過一個 signed integer 的範圍.
Sample input 的第一個輸入為 node 數(範例來說,7 就代表此圖有 7 個 node), 接下來的 input 就是一個 7*7 的 adjacency matrix.

The program about 6-1 is to realize Sollin's Algorithm. The input will be an adjacency matrix to represent the undirected graph. The output should be the edges of the minimum cost spanning tree in ascending order.

Note : All the inputs will be separated by a blank or a '\n'. And all the inputs will not be greater than a signed integer.
For the sample input. The first '7' means that the input graph has 7 nodes. And The following input will be the 7*7 matrix.

See the attached file for the Sample_Input1.

Sample output:
(0,5) = 10
(2,3) = 12
(1,6) = 14
(1,2) = 16
(3,4) = 22
(4,5) = 25

Program 6-2

AOE network

3. § [*Programming project*] Write a C program that allows the user to input an AOE network. The program should calculate and output the *early(i)* and *late(i)* times and the degree of criticality for each activity. If the project is not feasible, it should indicate this. If the project is feasible it should print out the critical activities in an appropriate format.

See the attached file for the Sample_Input2.

Sample output:

activity	early time e	late time l	slack $l-e$
a_1	0	0	0
a_2	0	2	2
a_3	0	3	3
a_4	6	6	0
a_5	4	6	2
a_6	5	8	3
a_7	7	7	0
a_8	7	7	0
a_9	7	10	3
a_{10}	16	16	0
a_{11}	14	14	0

General Information:

- **Deadline：2015/1/12 23:59.**
- **Upload your assignment to Moodle system.**
- **Upload file format: Student-Id_Name.rar , Ex.P76991094_王小明.rar**
- **Your file should consist of the following items:**
- **Source Code**
- **Readme file (Program description)**
- **Any copies will be scored as zero.Do not plagiarize!!!**
- **Late homework will not be accepted.**
- **Source code format: .c/.cpp (do NOT save your code in a .txt or PDF file etc.)**

這次的兩個程式需以”讀檔”方式，不能讀檔的一律 0 分計算

(if you didn’t use the corresponding input method, you will get zero points.)

若上傳的 source code 檔案格式是 c/cpp 以外的檔案格式,將一律零分計算

(if the source code you upload is not in the format of c/cpp, you will get zero points.)