

# 107 Data Structure Homework 1

# Lake Problem(1)

- Design a maze (15 X 15)
  - Input : read file (input.txt)
  - 0 : land (not have water)
  - 1 ~ 4 : depth of water (from shallow to deep)
  - Number of zero > 50 %
  - N 、 W 、 S 、 E
- Find the lake with the most water
  - Print Page 3 and Page 5 (20%)
  - Print the coordinates of the biggest lake (20%)
  - Print the total number of the water that is the biggest lake (20%)

# Lake Problem

0	4	1	0	4	1	0	0	0	1
2	2	0	4	0	0	2	0	4	3
0	1	0	0	0	0	0	3	0	2
4	3	0	0	4	0	4	4	2	1
0	0	0	0	0	1	0	0	0	0
4	1	0	4	4	4	0	0	4	0
3	2	0	0	0	3	0	0	1	0
3	2	0	4	0	0	3	0	0	0
4	0	1	1	3	0	3	3	0	0
1	4	3	0	4	0	0	0	4	0

# Lake Problem

0	4	1	0	4	1	0	0	0	1
2	2	0	4	0	0	2	0	4	3
0	1	0	0	0	0	0	3	0	2
4	3	0	0	4	0	4	4	2	1
0	0	0	0	0	1	0	0	0	0
4	1	0	4	4	4	0	0	4	0
3	2	0	0	0	3	0	0	1	0
3	2	0	4	0	0	3	0	0	0
4	0	1	1	3	0	3	3	0	0
1	4	3	0	4	0	0	0	4	0

# Lake Problem

*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
4	1	*	*	*	*	*	*	*	*
3	2	*	*	*	*	*	*	*	*
3	2	*	4	*	*	*	*	*	*
4	*	1	1	3	*	*	*	*	*
1	4	3	*	4	*	*	*	*	*

# Lake Problem(2)

- Design a maze (15 X 15)
  - Input : read file (input.txt)
  - 0 : land (not have water)
  - 1 ~ 4 : depth of water (from shallow to deep)
  - Number of zero > 50 %
  - N 、 W 、 S 、 E
  - N and S connected
  - W and E connected
- Find the lake with the most water after connect
  - Print the coordinates of the biggest lake(20%)
  - Print the total number of the water that is the biggest lake (20%)

# Lake Problem

0	4	1	0	4	1	0	0	0	1
2	2	0	4	0	0	2	0	4	3
0	1	0	0	0	0	0	3	0	2
4	3	0	0	4	0	4	4	2	1
0	0	0	0	0	1	0	0	0	0
4	1	0	4	4	4	0	0	4	0
3	2	0	0	0	3	0	0	1	0
3	2	0	4	0	0	3	0	0	0
4	0	1	1	3	0	3	3	0	0
1	4	3	0	4	0	0	0	4	0

# Lake Problem

0	4	1	0	4	1	0	0	0	1
2	2	0	4	0	0	2	0	4	3
0	1	0	0	0	0	0	3	0	2
4	3	0	0	4	0	4	4	2	1
0	0	0	0	0	1	0	0	0	0
4	1	0	4	4	4	0	0	4	0
3	2	0	0	0	3	0	0	1	0
3	2	0	4	0	0	3	0	0	0
4	0	1	1	3	0	3	3	0	0
1	4	3	0	4	0	0	0	4	0



# Lake Problem

*	4	1	*	4	1	*	*	*	*
2	2	*	*	*	*	*	*	*	*
*	1	*	*	*	*	*	*	*	*
4	3	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*
4	1	*	*	*	*	*	*	*	*
3	2	*	*	*	*	*	*	*	*
3	2	*	4	*	*	*	*	*	*
4	*	1	1	3	*	*	*	*	*
1	4	3	*	4	*	*	*	*	*

# Lake Problem

- Send code
- Only accepted C
- Homework upload to **iLearning** platform
- **Deadline : 2018/10/17(三) 23:59**
- 檔名 : main.c
- **抄襲嚴懲，請打上註解不然不計分**