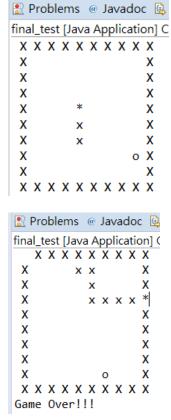
(60%) 請做出一個貪食蛇遊戲。說明:在10x10的區域中,最外圍由牆壁(符號X) 圍起來,裡面有一條蛇(蛇頭為*,蛇身為 x) 與一個食物(符號 o),蛇的初始長度為3,當蛇吃到一個食物,長度就會多1,最大的長度為10;食物被吃掉後,會在隨機位置上產生,但不會出現在牆壁與蛇身上;蛇吃到自己或是撞到牆壁遊戲就會結束。使用 Thread 讓蛇每隔 1 秒會往上一秒的方向自動前進,你可以輸入'w','a','s','d'控制蛇前進的方向。

You are required to write a <u>Snake</u> game. Description: In a 10x10 game region, the "X" represents a wall at the border and there are a snake (snake body is x and snake head is *) and food (denoted as o) in the game region. Initially, the length of the snack is 3. When the snake eats a food, the length increases by 1 (the maximum length is 10). After the food is eaten, the new food will be generated at a random position. However, the food doesn't appear on the wall and over the snake. The game is over if and only if the snake eats itself or hits the wall. Your program needs to use a <u>Thread</u> so that the snake automatically goes forward every second. You can control the direction of the snack's movement by inputting the 'w', 'a', 's', 'd'.

Example:



(40%) 請依序讀出 *number.txt* 的兩列(row)字串並忽略非數字的部分在 class Cal 內進行相加。要注意的是這兩個數字皆大於 integer, float, double, and long 的最大值,故無法宣告為這些型態進行相加。

限制 1: class Cal 的建構元內只能附值給區域變數 s1,s2

限制 2: Add()函數回傳型態為 String 的加總結果

限制 3: Write()函數將讀出的兩個數字以及總和寫入 result.txt,每個數字必須分隔一行。

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限制 4: 找不到 number.txt 時輸出 "Can't find number.txt" 和例外類別

You are required to load the string sequentially from two rows of *number.txt*. You need to filter out the alphabet then you can get two numbers. **Both of numbers are** greater than the maximum value of type integer, float, double and long, so you can't declare them as these types.

Limit 1: The constructor of class Cal can only assign value to local variables s1,s2.

Limit 2: Add() returns the sum with a type of string.

Limit 3: Write() writes two numbers and the sum to result.txt and each number must be separated by one line

Limit 4: When *number.txt* isn't found, output "Can't find number.txt" and exception category.

```
class Cal
{
    static String s1;
    static String s2;

    public Cal(String s1,String s2) // 不能更改此行 ( Can't revise this line )
    {
        // To Do
    }

    String Add() {
        // To Do
        return "";
    }

    void write(String s1,String s2,String s)
    {
        // To Do
    }
}
```