59. Spiral Matrix II

题目描述： **https://leetcode.com/problems/spiral-matrix-ii/**

> 给定一个整数n，将[1 - n * n]个数，按照螺旋的顺序填入n*n的二维数组内
>
> 例如：给定 n = 3
>
> ```
> [[1,2,3]
>  [8,9,4]
>  [7,6,5]]
> ```

解题思路：

4个for

代码：

```
class Solution {
public:
    vector<vector<int>> generateMatrix(int n) {
        vector<vector<int> > res(n, vector<int>(n));
        int s = n*n, k = 1;
        int l = -1, r = n-1, u = 0, b = n-1;
        while(k <= s){
            for(int i = ++l; i <= r && k <= s; i++){
                res[u][i] = k++;
            }
            for(int i = ++u; i <= b && k <= s; i++){
                res[i][r] = k++;
            }
            for(int i = --r; i >= l && k <= s; i--){
                res[b][i] = k++;
            }
            for(int i = --b; i >= u && k <= s; i--){
                res[i][l] = k++;
            }
        }
        return res;
    }
};
```