```cpp
#include<iostream>
using namespace std;
#define N 3
int main()
{
    srand((unsigned)time(NULL));
    int a[N+5][N+5];
    for (int i=0;i<N;i++) {
    for (int j=0;j<N;j++) {
            a[i][j]=rand()%4+1;
        }
    }

    for (int i=0;i<N;i++) {
        for (int j=0;j<N;j++) {
            cout<<a[i][j]<<" ";
        }
        cout<<endl;
    }

    int maxn[N+5],minn[N+5];

//  for (int i=0;i<N;i++) {
//      minn[i]=10;
//  }
    //han zui xiao lie zui da
    for (int j=0;j<N;j++) {
        maxn[j]=a[0][j];
        for (int i=1;i<N;i++) {
            if (a[i][j]>maxn[j]) {
                maxn[j]=a[i][j];
            }
        }
    }

    for (int i=0;i<N;i++) {
        minn[i]=a[i][0];
        for (int j=1;j<N;j++) {
            if (a[i][j]<minn[i]) {
                minn[i]=a[i][j];
            }
        }
    }
    cout<<"_____"<<endl;
    cout<<"每行最小值";
    for (int i=0;i<N;i++) {
```

```cpp
            cout<<minn[i]<<" ";
        }
        cout<<endl;
        cout<<"每列最大值";
        for (int i=0;i<N;i++) {
            cout<<maxn[i]<<" ";
        }
        cout<<endl;

        cout<<"-------------------"<<endl;
        int M_max[N][N],M_min[N][N];
        for (int i=0;i<N;i++) {
            for (int j=0;j<N;j++) {
                M_max[i][j]=M_min[i][j]=0;
            }
        }
        for (int j=0;j<N;j++) {
        for (int i=0;i<N;i++) {
                if (a[i][j]==maxn[j]) {
                    M_max[i][j]=1;
                }
            }
        }

        for (int i=0;i<N;i++) {
        for (int j=0;j<N;j++) {
                if (a[i][j]==minn[i]) {
                    M_min[i][j]=1;
                }
            }
        }
        int bj=0;
        cout<<"列最大"<<endl;
        for (int i=0;i<N;i++) {
            for (int j=0;j<N;j++) {
                cout<<M_max[i][j]<<" ";
            }
            cout<<endl;
        }
        cout<<"-------------------"<<endl;
        cout<<"行最小"<<endl;
        for (int i=0;i<N;i++) {
            for (int j=0;j<N;j++) {
                cout<<M_min[i][j]<<" ";
            }
            cout<<endl;
        }
        cout<<"-------------------"<<endl;
```

```
 96        for (int i=0;i<N;i++) {
 97            for (int j=0;j<N;j++) {
 98                if (M_min[i][j]+M_max[i][j]==2) {
 99                    cout<<i<<" "<<j<<" "<<a[i][j]<<"是一个马鞍点"<<endl;
100                    bj=1;
101                }
102            }
103        }
104        if (bj) {
105            cout<<"存在马鞍点";
106
107        }else{
108            cout<<"不存在马鞍点";
109        }
110        return 0;
111  }
```

```
 1  4 3 2
 2  3 3 2
 3  4 1 1
 4  _____
 5  每行最小值2 2 1
 6  每列最大值4 3 2
 7  --------------------
 8  列最大
 9  1 1 1
10  0 1 1
11  1 0 0
12  --------------------
13  行最小
14  0 0 1
15  0 0 1
16  0 1 1
17  --------------------
18  0 2 2是一个马鞍点
19  1 2 2是一个马鞍点
20  存在马鞍点
```