Problem Link:

<https://leetcode.com/problems/sort-matrix-by-diagonals/?envType=daily-question&envId=2025-08-28>

Solution:

class Solution {

public:

vector<vector<int>> sortMatrix(vector<vector<int>>& grid) {

int n = grid.size();

map<int, vector<int>> d;

for(int i = 0; i < n; ++i)

for(int j = 0; j < n; ++j)

d[i - j].push\_back(grid[i][j]);

for(auto& p : d)

{

if(p.first >= 0)

sort(p.second.begin(), p.second.end(), greater<int>());

else

sort(p.second.begin(), p.second.end());

}

map<int, int> m;

for(int i = 0; i < n; ++i)

for(int j = 0; j < n; ++j)

{

int k = i - j;

grid[i][j] = d[k][m[k]++];

}

return grid;

}

};