1260. Shift 2D Grid

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Given a 2D `grid` of size `m x n` and an integer `k`. You need to shift the `grid` `k` times.

In one shift operation:

- Element at `grid[i][j]` moves to `grid[i][j + 1]`.
- Element at `grid[i][n - 1]` moves to `grid[i + 1][0]`.
- Element at `grid[m - 1][n - 1]` moves to `grid[0][0]`.

Return the *2D grid* after applying shift operation `k` times.

Example 1:

$$\begin{bmatrix}1 & 2 & 3\\4 & 5 & 6\\7 & 8 & 9\end{bmatrix} \rightarrow \begin{bmatrix}9 & 1 & 2\\3 & 4 & 5\\6 & 7 & 8\end{bmatrix}$$

```
Input: grid = [[1,2,3],[4,5,6],[7,8,9]], k = 1
Output: [[9,1,2],[3,4,5],[6,7,8]]
```

Example 2:

$$\begin{bmatrix}3 & 8 & 1 & 9\\19 & 7 & 2 & 5\\4 & 6 & 11 & 10\\12 & 0 & 21 & 13\end{bmatrix} \rightarrow \begin{bmatrix}13 & 3 & 8 & 1\\9 & 19 & 7 & 2\\5 & 4 & 6 & 11\\10 & 12 & 0 & 21\end{bmatrix} \rightarrow \begin{bmatrix}21 & 13 & 3 & 8\\1 & 9 & 19 & 7\\2 & 5 & 4 & 6\\11 & 10 & 12 & 0\end{bmatrix}$$

$$\rightarrow \begin{bmatrix}0 & 21 & 13 & 3\\8 & 1 & 9 & 19\\7 & 2 & 5 & 4\\6 & 11 & 10 & 12\end{bmatrix} \rightarrow \begin{bmatrix}12 & 0 & 21 & 13\\3 & 8 & 1 & 9\\19 & 7 & 2 & 5\\4 & 6 & 11 & 10\end{bmatrix}$$

```
Input: grid = [[3,8,1,9],[19,7,2,5],[4,6,11,10],[12,0,21,13]], k = 4
Output: [[12,0,21,13],[3,8,1,9],[19,7,2,5],[4,6,11,10]]
```

Example 3:

```
Input: grid = [[1,2,3],[4,5,6],[7,8,9]], k = 9
Output: [[1,2,3],[4,5,6],[7,8,9]]
```

Constraints:

- `m == grid.length`
- `n == grid[i].length`
- `1 <= m <= 50`
- `1 <= n <= 50`
- `-1000 <= grid[i][j] <= 1000`
- `0 <= k <= 100`

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Java Autocomplete

```java
class Solution {
    public List<List<Integer>> shiftGrid(int[][] grid, int k) {

    }
}
```