

Spiral Matrix

For this problem we need to traverse the matrix in spiral order (clockwise).

Key Idea:

- Use four boundaries:
 - top (start row)
 - bottom (end row)
 - left (start column)
 - right (end column)
- Traverse in 4 directions:
 1. Left \rightarrow Right (top row)
 2. Top \rightarrow Bottom (right column)
 3. Right \rightarrow Left (bottom row, if any)
 4. Bottom \rightarrow Top (left column, if any)
- Shrink boundaries after each traversal.

Complexity:

- Time: $O(m \times n)$ (visit each element once)
- Space: $O(1)$ (excluding output)