```
public class Solution {
   public boolean searchMatrix(int[][] matrix, int target) {
      if (matrix.length == 0 || matrix[0].length == 0) return false;
      int row = matrix.length, col = matrix[0].length-1;
      int r = 0, c = col;

      while (r < row && c >= 0) {
        if (target == matrix[r][c]) return true;
        else if (target > matrix[r][c]) r++;
        else c--;
      }

      return false;
   }
}
```