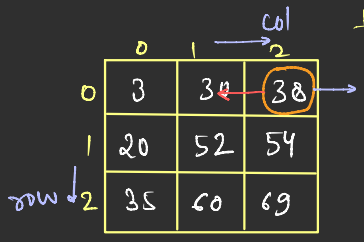
(13). Search in the Row wise -column wise Sorted matrix

Given a mat[][] & an integer x.

Each row & column of the matrix is sorted in increasing order.

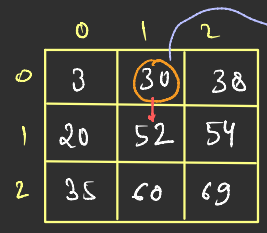


greater than target ⇒ all the element in that column are greater than target.

mat[0][2]

⇓

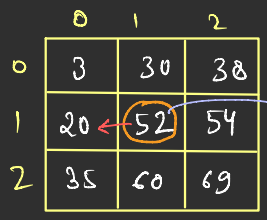
Skip the column → col--



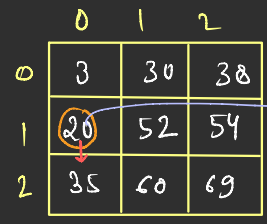
mat[0][1] < target ⇒ all element on the left in this row are less than the target

⇓

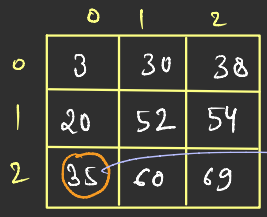
Skip the row → row++



mat[1][1] > target ⇒ Skip the column → col--



mat[1][0] < target ⇒ Skip the row → row++



mat[2][0] == target ⇒ Target found

```cpp
// User function template for C++
class Solution {
  public:

    bool matSearch(vector<vector<int>> &mat, int x) {
        int rows = mat.size(), cols = mat[0].size();
        int i = 0, j = cols-1;
        while(i<rows && j>=0) {
            if(mat[i][j] > x)
                j--;
            else if(mat[i][j] < x)
                i++;
            else return true;
        }
        return false;
    }
};
```