# Problem 3142: Check if Grid Satisfies Conditions

## Problem Information

**Difficulty:** Easy
**Acceptance Rate:** 44.51%
**Paid Only:** No
**Tags:** Array, Matrix

## Problem Description

You are given a 2D matrix `grid` of size `m x n`. You need to check if each cell `grid[i][j]` is:

* Equal to the cell below it, i.e. `grid[i][j] == grid[i + 1][j]` (if it exists). * Different from the cell to its right, i.e. `grid[i][j] != grid[i][j + 1]` (if it exists).

Return `true` if **all** the cells satisfy these conditions, otherwise, return `false`.

**Example 1:**

**Input:** grid = [[1,0,2],[1,0,2]]

**Output:** true

**Explanation:**

**![](https://assets.leetcode.com/uploads/2024/04/15/examplechanged.png)**

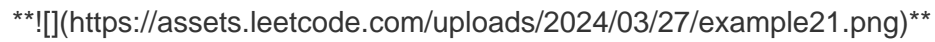All the cells in the grid satisfy the conditions.

**Example 2:**

**Input:** grid = [[1,1,1],[0,0,0]]

**Output:** false

**Explanation:**

**![](https://assets.leetcode.com/uploads/2024/03/27/example21.png)**

All cells in the first row are equal.

**Example 3:**

**Input:** grid = [[1],[2],[3]]

**Output:** false

**Explanation:**

![](https://assets.leetcode.com/uploads/2024/03/31/changed.png)

Cells in the first column have different values.

**Constraints:**

* `1 <= n, m <= 10` * `0 <= grid[i][j] <= 9`

## Code Snippets

**C++:**

```cpp
class Solution {
public:
bool satisfiesConditions(vector<vector<int>>& grid) {

}
};
```

**Java:**

```java
class Solution {
public boolean satisfiesConditions(int[][] grid) {

}
```

```
        }
```

**Python3:**

```python
class Solution:
    def satisfiesConditions(self, grid: List[List[int]]) -> bool:
```