

## Negative weight cycle

**Medium** Accuracy: 57.68% Submissions: 8617 Points: 4

Given a weighted directed graph with  $n$  nodes and  $m$  edges. Nodes are labeled from 0 to  $n-1$ , the task is to check if it contains a negative weight cycle or not.

**Note:** `edges[i]` is defined as  $u, v$  and weight.

### Example 1:

**Input:**  $n = 3$ , `edges = {{0,1,-1},{1,2,-2},{2,0,-3}}`

**Output:** 1

**Explanation:** The graph contains negative weight cycle as  $0 \rightarrow 1 \rightarrow 2 \rightarrow 0$  with weight  $-1, -2, -3, -1$ .

### Example 2:

**Input:**  $n = 3$ , `edges = {{0,1,-1},{1,2,-2},{2,0,3}}`

**Output:** 0

**Explanation:** The graph does not contain any negative weight cycle.

### Your Task:

You don't need to read or print anything. Your task is to complete the function **`isNegativeWeightCycle()`** which takes  $n$  and `edges` as input parameter and returns 1 if graph contains negative weight cycle otherwise returns 0.

**Expected Time Complexity:**  $O(n*m)$

**Expected Space Complexity:**  $O(n)$

**Constraints:**

$1 \leq n \leq 100$

$1 \leq m \leq n*(n-1)$ , where  $m$  is the total number of Edges in the directed graph.

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