Given a number N, return a string consisting of "0"s and "1"s that represents its value in base **-2** (negative two).

The returned string must have no leading zeroes, unless the string is "0".

**Example 1:**

**Input:** 2

**Output:** "110"

**Explantion:** (-2) ^ 2 + (-2) ^ 1 = 2

**Example 2:**

**Input:** 3

**Output:** "111"

**Explantion:** (-2) ^ 2 + (-2) ^ 1 + (-2) ^ 0 = 3

**Example 3:**

**Input:** 4

**Output:** "100"

**Explantion:** (-2) ^ 2 = 4

**Note:**

1. 0 <= N <= 10^9