

## 1017. Convert to Base -2

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:  $(-2)^2 + (-2)^1 = 2$

```
class Solution {
    public String baseNeg2(int N) {
        StringBuilder sb = new StringBuilder();

        while (N != 0) {
            sb.append(N & 1);
            N = -(N >> 1);
        }

        return sb.length() > 0 ? sb.reverse().toString() : "0";
    }
}
```