Given a non-negative integer N, find the largest number that is less than or equal to N with monotone increasing digits.

(Recall that an integer has *monotone increasing digits* if and only if each pair of adjacent digits x and y satisfy x <= y.)

**Example 1:**

**Input:** N = 10

**Output:** 9

**Example 2:**

**Input:** N = 1234

**Output:** 1234

**Example 3:**

**Input:** N = 332

**Output:** 299

**Note:** N is an integer in the range [0, 10^9].