Problem of the Week

Proposed by Bernardo Ábrego and Silvia Fernández

March 6-13

Let N be a number with 10 digits written in base ten with the following property: The first digit indicates the number of zeros in N, the second digit indicates the number of ones, the third digit the number of twos, and so on until the tenth digit which indicates the number of nines in N.

Find the number N. Explain your reasoning.