Enhance Luhn algorithm for validation of identity card numbers (ID card)

ABSTRACT

The Luhn algorithm is a simple checksum formula used in various fields to check the validity of identification numbers, including credit card numbers, International Mobile Equipment Identity (IMEI) numbers, and Identity Card Numbers (ID card). However, during a real test, a weakness was found in the validating ID card. We intend to enhance the Luhn algorithm for the validation of ID card numbers. The enhancement is expected to be useful for many sites that use the algorithm.

Keyword: Security; Luhn algorithm; ID card numbers validation