

Ministry of Higher Education and Scientific Research University of Babylon College of Information Technology



**Department of Information Security** 

Study: (Morning)

## Applying The Distribution of the Weird Numbers for Enhancing a Security Algorithm

A Graduate Project Submitted to the department of Information Security of the College of Information Technology, University of Babylon, in Partial Fulfillment of the Requirements for the Bachelor's degree in the Information Security of Information Technology.

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## Abstract

The security of online transactions, particularly in the realm of travel ticket booking, is of paramount importance. In this paper, we propose a novel approach to enhance the security algorithm used in a travel ticket booking website. We introduce the Wired number algorithm to strengthen the security of OTP (One-Time Password) codes sent during account creation and payment authentication processes. By leveraging the Wired number algorithm, OTP codes become significantly more difficult to guess, thereby enhancing user authentication and transaction security. Furthermore, we combine the Wired number algorithm with hashing techniques to complicate the hashed password pattern stored in the database. This additional layer of security makes it exceedingly difficult for attackers to guess stored passwords, even in the event of a security breach. Our approach significantly bolsters the security of the travel ticket booking website, ensuring the safety and security of user data and transactions.