

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



Department of Information Security

Study: (Morning)

## **LAN Network Scanner**

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.

By

Abdullah Maan Jaber

**Supervised by** 

Dr. Moayad Najm Abdullah

2023-2024

## **Abstract**

The LAN Network Scanner project utilizes Nmap technology to provide detailed insights into devices on a network, including device manufacturers, device status, and port information. While Nmap's comprehensive scanning capabilities enhance the accuracy and depth of network analysis, the project faces a notable weakness when attempting to scan protected devices, as security measures can impede successful data extraction. LAN Network Scanners play a crucial role in cybersecurity, aiding in the detection of vulnerabilities, monitoring network traffic, and identifying potential threats within a network. By scanning for open ports, identifying connected devices, and assessing overall network infrastructure health, these scanners provide organizations with valuable insights to strengthen their cybersecurity defenses. To address the limitation posed by security measures hindering data extraction from protected devices, future updates of the project should focus on overcoming these challenges. Despite the project's current ability to provide detailed information about network devices, including device manufacturer, status, and port data, its effectiveness is limited when scanning protected devices. Therefore, future updates must aim to overcome these limitations, enhancing the project's overall efficacy and usefulness in network scanning and analysis.