Project Report: Unified Ethical Hacking Toolkit (GUI Version)

Name: [Sachin Kumar]

Roll Number: [2312res552]

Date: 02-08-2025

Project Title: Unified Ethical Hacking Toolkit (GUI Version)

Abstract

This project presents a GUI-based cybersecurity toolkit designed for ethical hacking beginners. It integrates popular open-source tools like Nmap, Subfinder, and Nuclei to provide a simplified learning platform for scanning and enumeration tasks. A graphical user interface built using Python's tkinter allows users to execute scans with just one click, making complex recon tasks more accessible.

Key Features

- Graphical interface for ethical hacking beginners
- Port scanning using Nmap
- Subdomain enumeration with Subfinder
- Vulnerability scanning via Nuclei templates
- One-click installation using Bash script

Tools Integrated

- Nmap (Fast Port Scanner)
- Subfinder (Passive Subdomain Enumeration)
- Nuclei (Template-based Vulnerability Scanner)
- Assetfinder

- Httprobe

- Subzy (Subdomain Takeover Detection)

- crt.sh (Certificate Search Tool)

GUI Overview

The GUI was developed using Python's tkinter module. It includes:

- Input field for target domain/IP

- Buttons to run each type of scan

- Pop-up windows to display scan results

Setup Instructions

1. Extract the project zip file.

2. Run the installer: chmod +x install_tools.sh

./install_tools.sh 3.

Launch the GUI:

python3 gui_launcher.py

Learning Outcomes

- Students gain hands-on experience with cybersecurity tools

- Understand basic reconnaissance and vulnerability assessment

- Practice using automation and scripting to simplify tasks

- Learn how GUIs can improve accessibility in security operations

Conclusion

The Unified Ethical Hacking Toolkit (GUI Version) bridges the gap between theory and practice for new learners in cybersecurity. It simplifies complex recon techniques and allows students to focus on understanding rather than syntax. This project also showcases how Python can integrate open-source tools into powerful, usable applications.