

Phishing Website Detection Tool

1. Introduction

The Phishing Website Detection Tool is a rule-based Python application that scans a given URL for suspicious characteristics commonly found in phishing websites. It helps raise awareness about potentially harmful links using predefined heuristics.

2. Abstract

Phishing websites often disguise themselves as legitimate ones to steal sensitive user information. This tool applies several rule-based checks, such as the presence of IP addresses, '@' symbols, suspicious keywords, and shortening services, to flag potentially harmful URLs. It provides users with immediate feedback on whether a URL is safe or suspicious.

3. Tools Used

- Python 3.x
- re (regex library)

4. Steps Involved in Building the Project

1. Defined rule-based conditions to identify phishing indicators.
2. Implemented URL checks for '@' symbol, IP address, shortening services, and suspicious keywords.
3. Parsed user input and evaluated against defined rules.
4. Displayed clear output if the URL was suspicious or appeared safe.
5. Included ethical disclaimer at the top of the script.

5. Conclusion

This rule-based phishing detection tool acts as a quick and effective utility to help users identify potentially dangerous URLs. It is an ideal starting point for cybersecurity learners and can be extended in the future with machine learning for more accuracy.