**URL Length Analyzer**

**Problem Statement :**

The increasing prevalence of phishing attacks and malicious URLs highlights the need for a simple and accessible tool to assess URL legitimacy. Many suspicious URLs exhibit patterns such as excessive length, making basic analysis a valuable first step in detection. This project addresses the problem by providing a Python-based URL Length Analyzer that classifies URLs as "Legitimate" or "Suspicious" based on their length. The tool supports both single and bulk URL analysis, generates visualizations for insights, and creates detailed reports, making it a practical solution for cybersecurity beginners and professionals.

**Abstract :**

The URL Length Analyzer is a lightweight and efficient Python-based tool designed to analys the legitimacy of URLs based on their length. This project aims to provide a quick, easy-to-use solution for identifying potentially malicious or suspicious URLs, which often exhibit certain characteristics such as excessive length. By leveraging basic string operations and visualization tools, the analyzer classifies URLs as either "Legitimate" or "Suspicious."

The tool supports both single URL analysis and batch processing of URLs from a CSV file, making it adaptable to various use cases. For every analysis, the results are presented in a user-friendly format, including a pie chart that visualizes the proportion of legitimate versus suspicious URLs. Additionally, the tool generates a detailed CSV report to assist in further investigation or documentation.

This project is an excellent starting point for cybersecurity enthusiasts, as it introduces fundamental concepts of URL analysis and basic data visualization. It has practical applications in the field of cybersecurity, including aiding in phishing detection and providing insights into URL patterns. The simplicity of the tool makes it suitable for beginners, while its adaptability ensures it can be extended to more advanced features in the future.