**Project Batch No: 2**

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**Analysis of malicious URLs using Machine Learning**

**Abstract:** Nowadays, WEB has become a highest priority issue in the field of cyber security, giving platform for various online criminal activities. Massive online social networks like Facebook, Twitter, etc. with hundreds of millions of active users are increasingly being used by Cyber criminals to spread malicious URLs, which exploit vulnerabilities on the user’s machine for personal gain. URLs are used as the main vehicle in this domain. To tackle this major issue, the community is mainly focused on techniques for blacklisting the malicious URLs. The detection of malicious URLs is one of the highest priority issues for cyber security practitioners. There are plenty of machine learning techniques to address this issue, the most used approach remains blacklisting. The main obstacle of using machine learning is the difficulties in data collection.

The main notion of our project is to identify the malicious URLs based on certain lexical features. The project model analyzes the lexical-based feature of malicious URLs. It shows that lexical analysis is effective and efficient for proactive detection of malicious URLs. It provides the set of sufficient features necessary for optimal & accurate categorization and evaluate the accuracy of the technique over thousands of URLs.

**Keywords:** malicious URLs, machine learning techniques, lexical-based features, cybersecurity

**Introduction:**

**Literature Survey (Minimum 5 papers –Published between 2016 and 2020):**

1. Detecting Malicious URLs using Lexical Analysis (September 2016): Title + brief description
2. Paper2:
3. Paper3:
4. Paper4:
5. Paper5:

**Proposed Methodology/Architecture diagram:**

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