Basic Details of the Team and Problem Statement

Ministry/Organization Name/Student Innovation: National Technical Research Organisation,(NTRO)

PS Code: SIH1454

Problem Statement Title: Create an intelligent system using AI/ML to detect phishing domains which imitate look and feel of genuine domains

Team Name: Threat Trackers

Team Leader Name: Darshan Badgujar

**Institute Code (AISHE):** C-41256

Institute Name: K. K. Wagh Institute of Engineering Education and Research, Nashik

Theme Name: Blockchain & Cybersecurity

Idea/Approach Details

The proposed solution is to develop a comprehensive solution for detecting phishing URLs using **AI/ML** by combining a **browser extension** and a **Mobile application**. Phishing attacks continue to be a major threat, and this project will provide users with tools to identify and report suspicious URLs, enhancing their online security.

- [ ] **Real time** link analysis through extension and mobile application.

- [ ] **Detection module** verifies link using phishing indicators like URL Features, Hyperlink Features and Textual Features.

- [ ] **Image Processing Technique** for web page analysis using **OCR** tool.

- [ ] For apprehensive users, a **user input** options is available on website.

- [ ] Provide detection of phishing links received through **emails** or **sms**.

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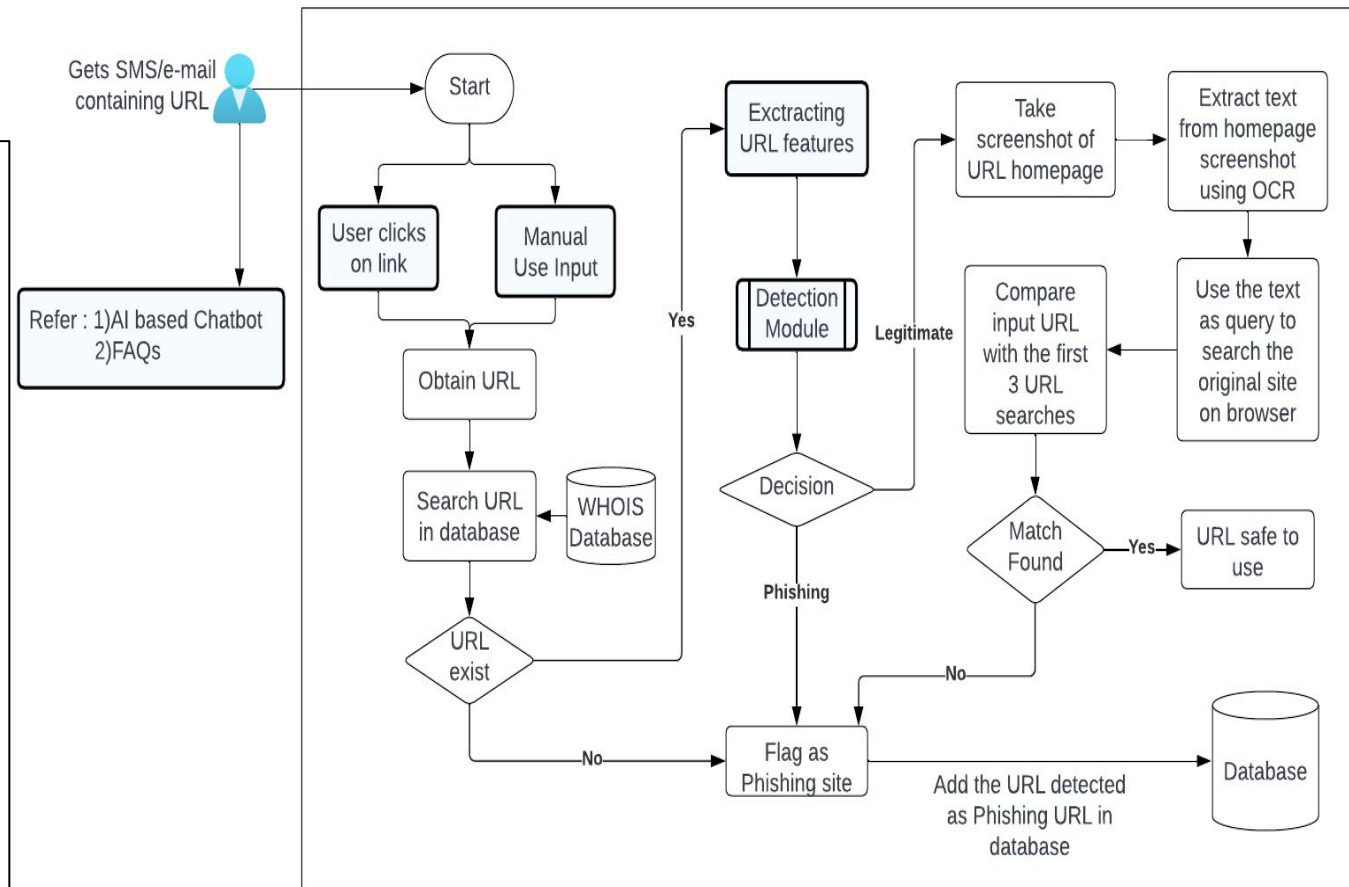
Technical Stack:

Idea/Approach Details

☐ **Individuals:** This project aims to ensure the safety and protection of individuals from frauds and scams.

☐ **Small Business:** Email communication, website visitors and online transactions are safeguarded.

☐ **Educational Institutes:** By integrating phishing detection methods into their email systems and websites, educational institutions may defend their students, teachers, and staff against phishing attempts.

☐ **E-Commerce companies:** Phishing detection tool may be used by e-commerce companies to safeguard their online storefronts and protect client information.

☐ **Security Researchers:** Researchers may make use of phishing detection tools to analyze and look into phishing attacks in order to develop countermeasures.

☐ **Law Enforcement and Cybersecurity Agencies:** To tackle cybercrime on a worldwide basis, law enforcement organizations might use phishing databases to coordinate with counterparts in other nations.

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☐ **Hybrid model** has the potential to achieve promising level of **accuracy**.

☐ **Customizable features**: User can customize the alert notifications according to their preferences.

☐ A detailed **report analysis** will be provided to the user which will keep users informed about potential threats and their overall security posture.

☐ **Real-time threat analysis** will be provided in our website, which will give the user rapid assessment of there provided URL. This will provide user with immediate feedback with instant satisfaction.

☐ Making use of **Browser-Friendly Extension** which will be compatible on all the browsers such as Chrome, Opera,FireFox etc.

☐ Implementing a **credit system** to reward the user everytime they report a phishing website. User can use the earned credits to redeem vouchers and coupons.

☐ Implementing a **24/7 AI based Chatbot Support**.

Team Member Details

Team Leader Name: Darshan Badgujar
Branch (Btech/Mtech/PhD etc):   BE   Stream (ECE, CSE etc):AI&DS   Year (I,II,III,IV): III

Team Member 1 Name: Shubhankan Sharma

Branch (Btech/Mtech/PhD etc): BE   Stream (ECE, CSE etc):AI&DS   Year (I,II,III,IV): III

Team Member 2 Name: Akshat Patil

Branch (Btech/Mtech/PhD etc): BE   Stream (ECE, CSE etc):AI&DS   Year (I,II,III,IV): III

Team Member 3 Name: Janhavi Alai

Branch (Btech/Mtech/PhD etc): BE   Stream (ECE, CSE etc):AI&DS   Year (I,II,III,IV): III

Team Member 4 Name: Ojas Ambekar

Branch (Btech/Mtech/PhD etc): BE   Stream (ECE, CSE etc):AI&DS   Year (I,II,III,IV): III

Team Member 5 Name: Vidhi Makwana

Branch (Btech/Mtech/PhD etc): Btech   Stream (ECE, CSE etc):AI&DS   Year (I,II,III,IV): II

Team Mentor 1 Name: Prof. Yogita Bhise

Category (Academic/Industry): Academic   Expertise (AI/ML/Blockchain etc):Data Analyst   Domain Experience (in years): 15 Years

Team Mentor 2 Name: Prof. Priya Rakibe

Category (Academic/Industry): Academic   Expertise (AI/ML/Blockchain etc): Data Mining, Web Development   Domain Experience (in years): 10 Years