

# HAKOONA-MATATA : CITIZEN SECURITY APP

## Description:

The Citizen Safety App is a groundbreaking application designed to safeguard individuals against cybercrimes by detecting and flagging malicious or fraudulent indicators in real-time. This app empowers users to protect themselves from online threats by analysing various elements such as mobile numbers, SMS headers, URL links, UPI addresses, Bitcoin wallet addresses, and SMS templates to identify potential risks and alert users promptly.

## Features:

1. **Real-time Malicious Indicator Detection:** The app continuously monitors the incoming data such as SMS, URLs, and other digital communication channels for potential threats.
2. **Mobile Number Analysis:** Analyses incoming calls and messages to identify suspicious patterns associated with mobile numbers such as spam calls, phishing attempts, or scam messages.
3. **SMS Header Inspection:** Scrutinises SMS headers to detect spoofed or suspicious sources, ensuring users are aware of potential phishing or fraudulent messages.
4. **URL Link Scanner:** Scan URL links received through messages or other platforms to identify phishing websites, malware-infected pages, or suspicious domains.
5. **UPI Address Verification:** Validates UPI addresses during transactions to prevent users from falling victim to UPI-related scams or fraudulent payments.
6. **Bitcoin Wallet Address Checker:** Verifies Bitcoin wallet addresses to prevent users from engaging in fraudulent cryptocurrency transactions or scams.
7. **SMS Template Analysis:** Analyzes the content and structure of SMS templates to identify common scam patterns, ensuring users are informed about potential threats.

8. **Alert System:** Instantly alert users when a potential threat is detected, providing them with information on the type of threat and recommended actions to take.
9. **User Reporting:** Allow users to report suspicious activity or false positives, helping improve the app's detection algorithms and database.
10. **User Education:** Provide educational resources within the app to help users recognize and avoid common cyber threats, empowering them to protect themselves proactively.

## Installation:

- **Download:** Clone or download the Python file from the project repository.
- **Dependencies:** Ensure you have Python installed on your system. Additionally, install Python libraries mentioned in the project documentation ie gradio, truecallerpy, blockcypher.
- **Run the File:** Open a terminal or command prompt, navigate to the directory containing the Python file, and run the file using the command `python citizen_safety_app.py`.

```
!pip install gradio
```

```
!pip install truecallerpy
```

```
!pip install blockcypher
```

## Usage:

## Citizen Safety App

Mobile Number	output 0
<input type="text"/>	<input type="text"/>
SMS	output 1
<input type="text"/>	<input type="text"/>
URL Link	output 2
<input type="text"/>	<input type="text"/>
UPI	output 3
<input type="text"/>	<input type="text"/>
Bitcoin Wallet	output 4
<input type="text"/>	<input type="text"/>

**Step 1 : Run the Python File:** Launch the Python file using the instructions provided in the Installation section.

**Step 2 : Input Details:** Enter the required details such as mobile number, SMS content, URL link, UPI ID, and Bitcoin Wallet address into the designated fields.

**Step 3 : Click Submit:** After entering the details, click the submit button to initiate the analysis process.

**Step 4 : Review Results:** The app will analyse the inputted details and provide alerts if any suspicious activity is detected. Review the results to determine if further action is necessary.