CyberWing Hackathon

Om - OSINT me

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PROBLEM STATEMENT

EXPLANATION

The internet has an ocean of data that is free and available to everyone. These data, scattered over the internet, when collected and properly analysed can give a lot of insight to solve real-world problems. They can also help police to make better-informed decisions. OSINT or Open-Source Intelligence involves collecting data from public and open sources for intelligence purposes. Data could be in the form of audio, video, image, text, etc., and may be available from sources such as social media sites, public-facing servers, articles, newsletters, online discussion groups, blogs, and code repositories.

EXPECTED OUTCOMES

- To create a solution to fetch the complete information about a person when a username, e-mail address, phone number, or any unique identifier is provided as the input.
- This information can be gathered from all available sources on the internet including the dark web. The data so gathered should be analysed and correlated to predict possible future threats. In this, you can also include facial recognition and social media matching capabilities to derive meaningful insights.
- Alerting and ticketing capabilities should also be integrated into this.

INNOVATIVE SOLUTION

Open-Source Intelligence (OSINT) is primarily used in national security, law enforcement agencies and for business intelligence to produce actionable intelligence after gathering data from publicly available and accessible sources. The tremendous growth in Cyber Space increased the possibility and availability of such information publicly allows anyone with access to internet gain information and intelligence about the given individual or organisation.

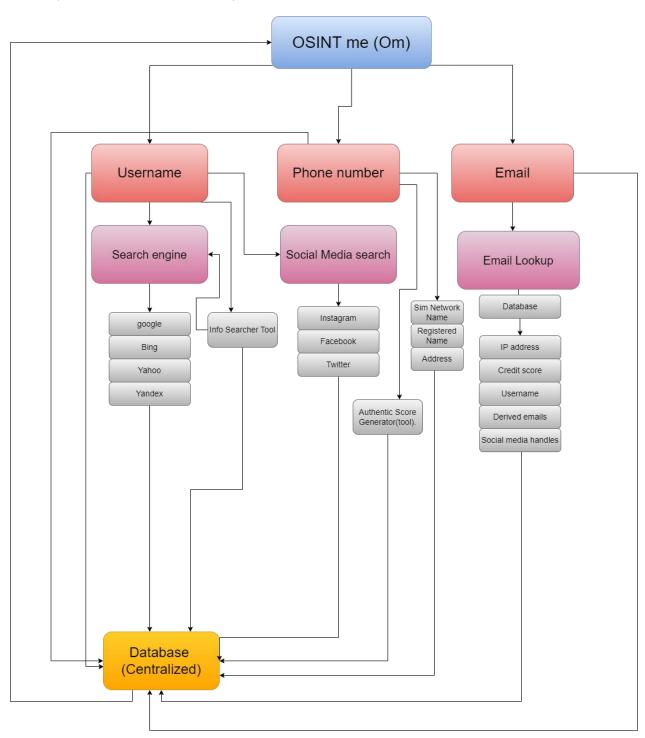
To help the police personnel to keep the law and order in cyber space, OSINT could be used. The tool we are proposing would enable them to gather, collate and gain intelligence to track any individuals or organisations based on the username, e-mail address, and phone number.

The proposed tool – Om (OSINT me) is a web-based tool which lets the police personnel to perform a <u>live or recorded search</u> based on the time-available. The <u>live search</u> is performed using an integrated toolchain and a crawler (web and dark) which can search an individual using any unique identifiers namely username, e-mail address, phone number. These results are stored in a database for later reference along with the search query. During a live search, we can optimize the search by mentioning should the search happen recursively and periodically. The <u>recorded search</u> is performed from the stored database. For both these search types we can create an alert such that, during the automatic periodical search if any information is identified the police personnel can be notified.

The results are displayed in the web page and can be downloaded as PDF file or can be mailed to any given mail id.

PROPOSED ARCHITECTURE

The proposed architecture shows the interactions between the search query engine (Om - User Interface), various other tools that are part of our toolchain and the database.



PROOF OF CONCEPT

The Command Line version of the proposed tool is implemented. Below image shows the options available to perform the OSINT using our tool Om.



The above figures shows the Proof of Concept for username search through our tool. We are yet to integrate the CLI to the UI.

SAMPLE VIDEO

Click Here to download.