SOCIAL AND INFORMATION NETWORKS

TITLE

EMPERICAL CHALLENGES TO TACKLE PROBLEMS OF CYBER SECURITY IN SOCIAL NETWORKS

MADE BY:-

KARTIKAY GUPTA (18BCE2199)

SUBMITTED TO :

PROF. SANJIBAN SEKHAR ROY

ABSTRACT

In this robust era of soaring Data catalogue symmetry , demands of online social sites such as Facebook, Twitter and Instagram have effectively risen until hitherto. Starting from online chat boxes and Bluetooth chat applications nowadays youth of the perilous institute have shifted to the latest update of what's app and the officials have to webinars which are now are all crowded with hub-hub of people. The kaleidoscope of non-rivalry cyber crimes have worsen the bombarded situation. "Cyber" is a word that effectively allures the black hat hackers to rush back and forth online which invites chaos on the network. Hence, here we have proposed a project that deals with the situation. This project aims at providing self awareness among youths against cyber crimes prevalent in our society through self aiding procedural ethical programming means. This Project basically aims to proliferate the existing orthodox of the people to the peak.

INTRODUCTION:

Cyber crime refers to doing online crimes on computers in a connected network involving crimes on various social networking sites. Cyber security is characterized as the security of information on cloud from robbery, harm or unapproved get to. Presently the inquiries emerge from where the most extreme security ruptures happens in the system? The more vague is the clients, the more there interest of getting to the data some may do purposely and some unwittingly, from this realities clearly our mind will float towards the long range informal communication destinations. Informal communication locales, for example, Facebook, Myspace, twitter, Orkut and so on have gotten so well known among the individuals that they have begun to share each and every snapshot of their lives on these destinations Social systems administration destinations are perhaps the most effortless type of correspondence nowadays and have become an unavoidable thing for youth . Each division of the general public are subject to these But social destinations have negative viewpoints additionally Because of the developing ubiquity of these locales they fill in as an objective for cybercrime and assaults. It is generally founded on how clients are utilizing these destinations like Facebook and a lot more Attackers can without much of a stretch access and assemble their own and delicate data Users are less mindful and least worried about the security setting and they effectively become casualty of protection and character

rupture Lack of cyber learning is the fundamental driver of overall realities because of which private photographs and individual data are shared among the system In this paper our principle center is towards how to leave every one of the issues of security in long range interpersonal communication locales. We have attempted to break down and decipher information from every one of the perspectives and assessment of equivocal clients from particular foundation the goal of recognizing powerlessness with protection and security framework is to control web violations related with security and character rupture on person to person communication destinations. And furthermore it expects to improve default security arrangement of long range interpersonal communication destinations Facebook Information security is significant nowadays to anybody utilizing a PC or to any association that utilizes PCs and systems administration in their everyday tasks That is about everybody ,.Information security ought to be at the front line of everybody's brain since such an extensive amount our own data is out there on the Internet .

AIM :

This project aims at providing self awareness among youths against cyber crimes prevalent in our society through self aiding procedural ethical programming means.

As a self or first aid , for instance the cyber security officials are reluctant to help. One can trace the host name ,Ip address and the location of the Individual who threatens the victim by performing cyber crimes.

FUNCTION MODULE :

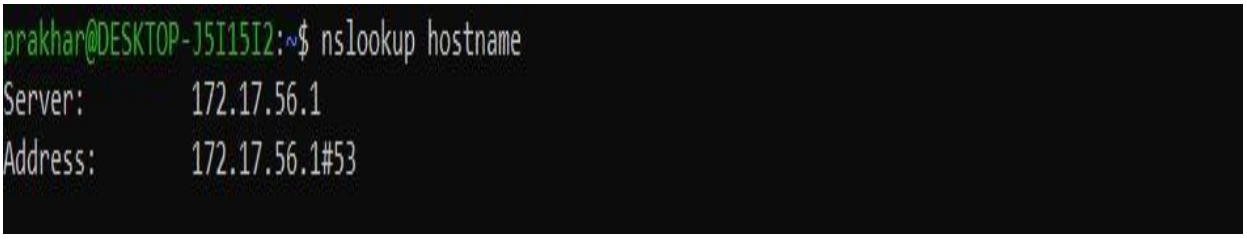
List of UNIX command to find IP address from hostname :

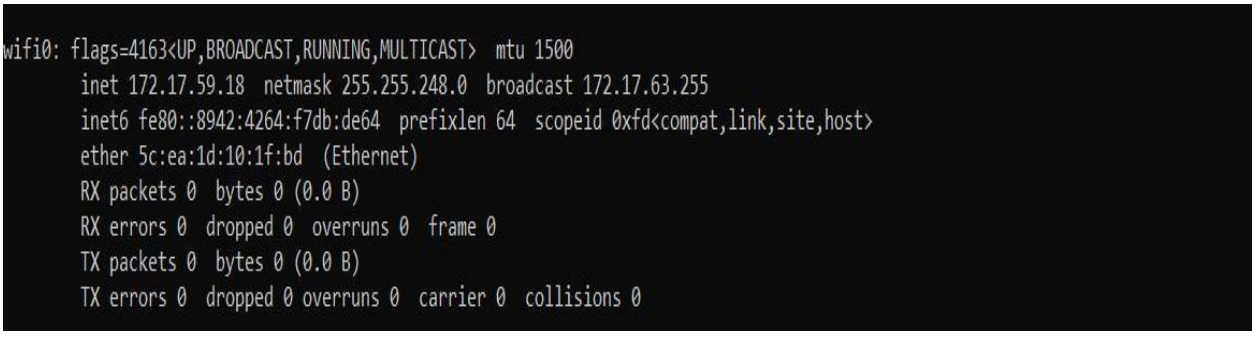
Ifconfig order model :

How about we see case of ifconfig order to discover IP address of localhost on which you are working: …ifconfig order shows parcel of data about different NIC cards in framework, you can check either for "inet" or "inet addr" for seeing IP address to separate NIC cards.

nslookup command example :

… nslookup is one of the essential UNIX direction to discover IP address from hostname and again from hostname to IP address Similar toping you can likewise utilize nslookup order to discover IP address of both neighborhood host and remote host in any UNIX based framework nslookup is commonly accessible in the greater part of UNIX based framework e g Linux, Solaris, IBM AIX or some other UNIX framework





To get hostname :

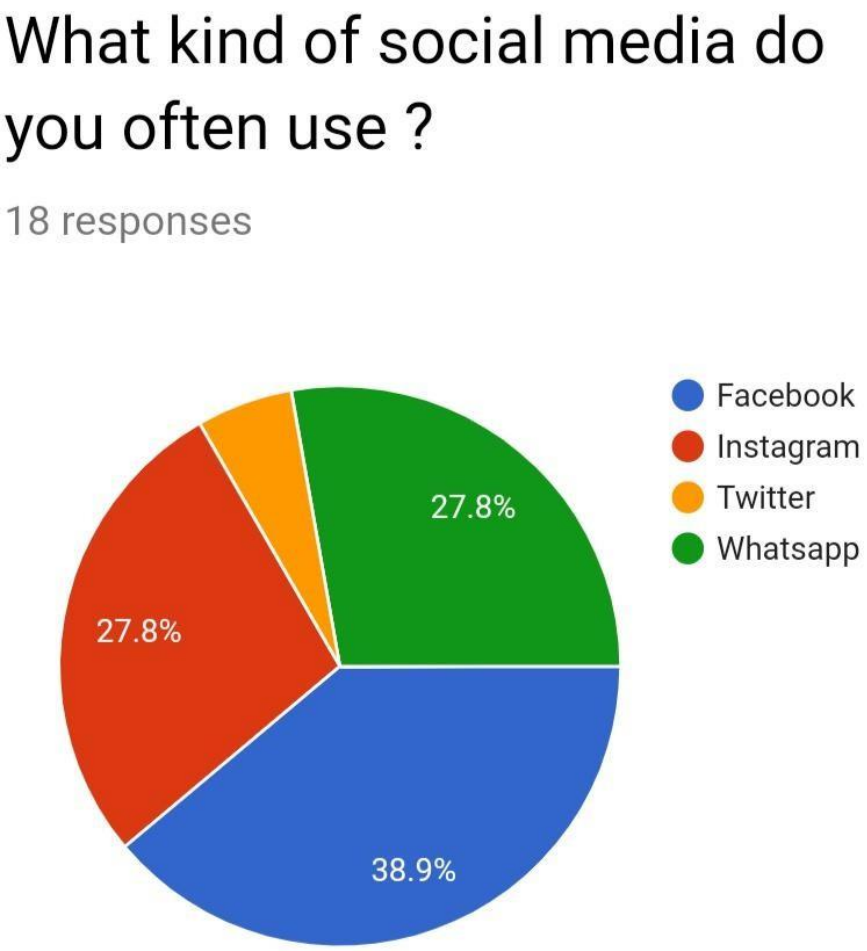
```
prakhar@DESKTOP-J5I15I2:~$ hostname -I
172.17.59.18
```

ping command example :

Our plain old ping order can likewise be utilized to discover IP address of localhost or some other host gave you know the hostname ping is utilized to check shrink target server is alive or not however while utilizing with alternative -s it additionally show IP address of relating host also Ping is really one of the of 10 valuable systems administration direction in UNIX , see that connection for different directions.

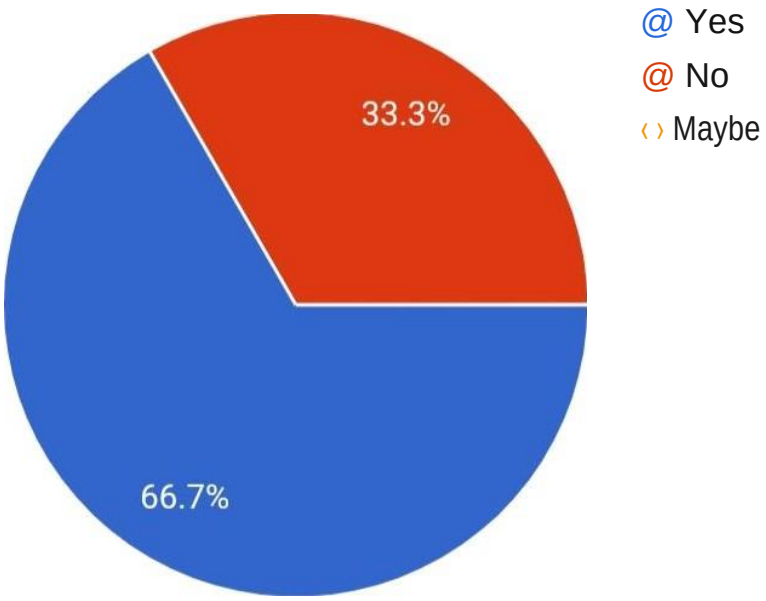
```
Microsoft Windows [Version 10.0.18362.418]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\Dell>ping -a 103.221.233.12

Pinging 103.221.233.12 with 32 bytes of data:
Reply from 103.221.233.12: bytes=32 time=133ms TTL=53
Reply from 103.221.233.12: bytes=32 time=283ms TTL=53
Reply from 103.221.233.12: bytes=32 time=61ms TTL=53
Reply from 103.221.233.12: bytes=32 time=338ms TTL=53

Ping statistics for 103.221.233.12:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 61ms, Maximum = 338ms, Average = 203ms

C:\Users\Dell>hostname/i
sethostname: Use the Network Control Panel Applet to set hostname.
hostname -s is not supported.

C:\Users\Dell>hostname -s
sethostname: Use the Network Control Panel Applet to set hostname.
hostname -s is not supported.

C:\Users\Dell>ping -a 172.17.56.1

Pinging 172.17.56.1 with 32 bytes of data:
Reply from 172.17.56.1: bytes=32 time=5ms TTL=64
Reply from 172.17.56.1: bytes=32 time=3ms TTL=64
Reply from 172.17.56.1: bytes=32 time=3ms TTL=64
Reply from 172.17.56.1: bytes=32 time=2ms TTL=64

Ping statistics for 172.17.56.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 5ms, Average = 3ms

C:\Users\Dell>
```

STATISTICAL ANALYSIS:-



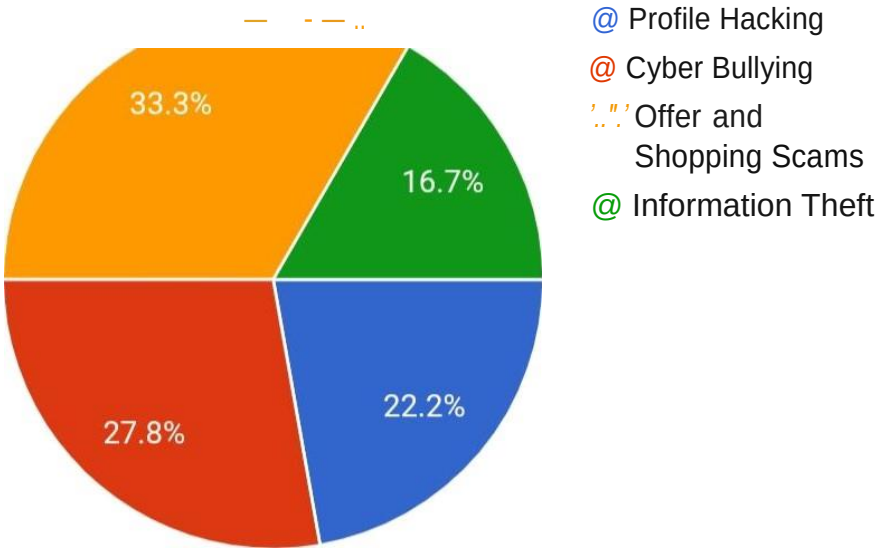
Have you ever faced cyber-crime or someone you know who has?

18 responses



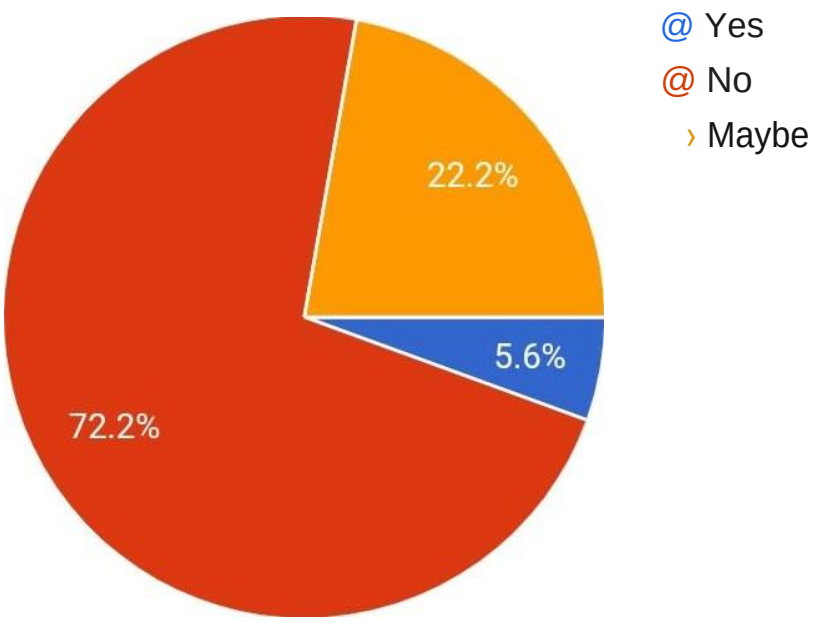
What kind of cyber-crime do you feel is most common on social networks?

18 responses



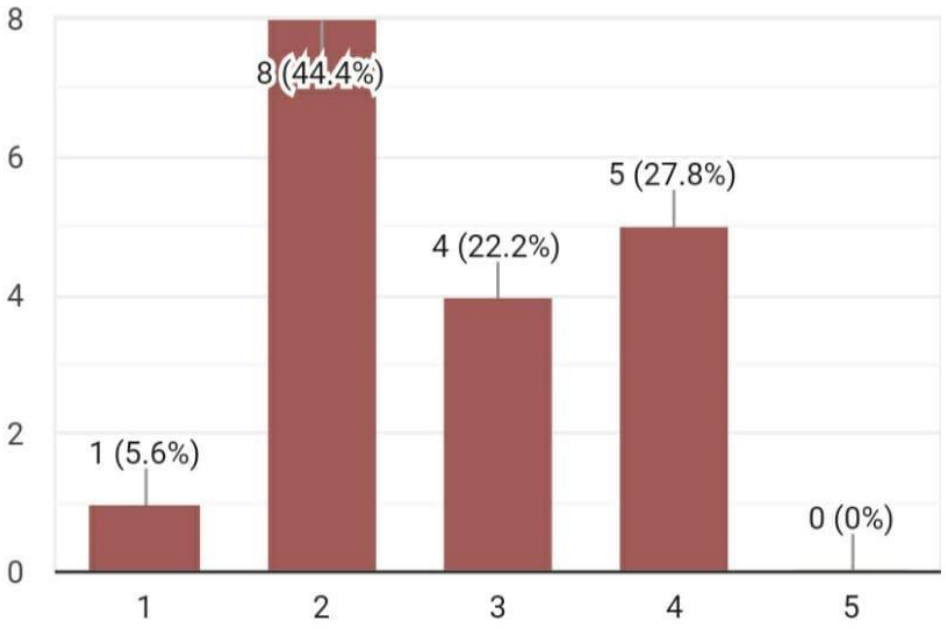
Do you think that the current cyber laws are enough to prevent cyber-crimes?

18 responses



How much do you rate yourself for having knowledge of cyber security measures?

18 responses

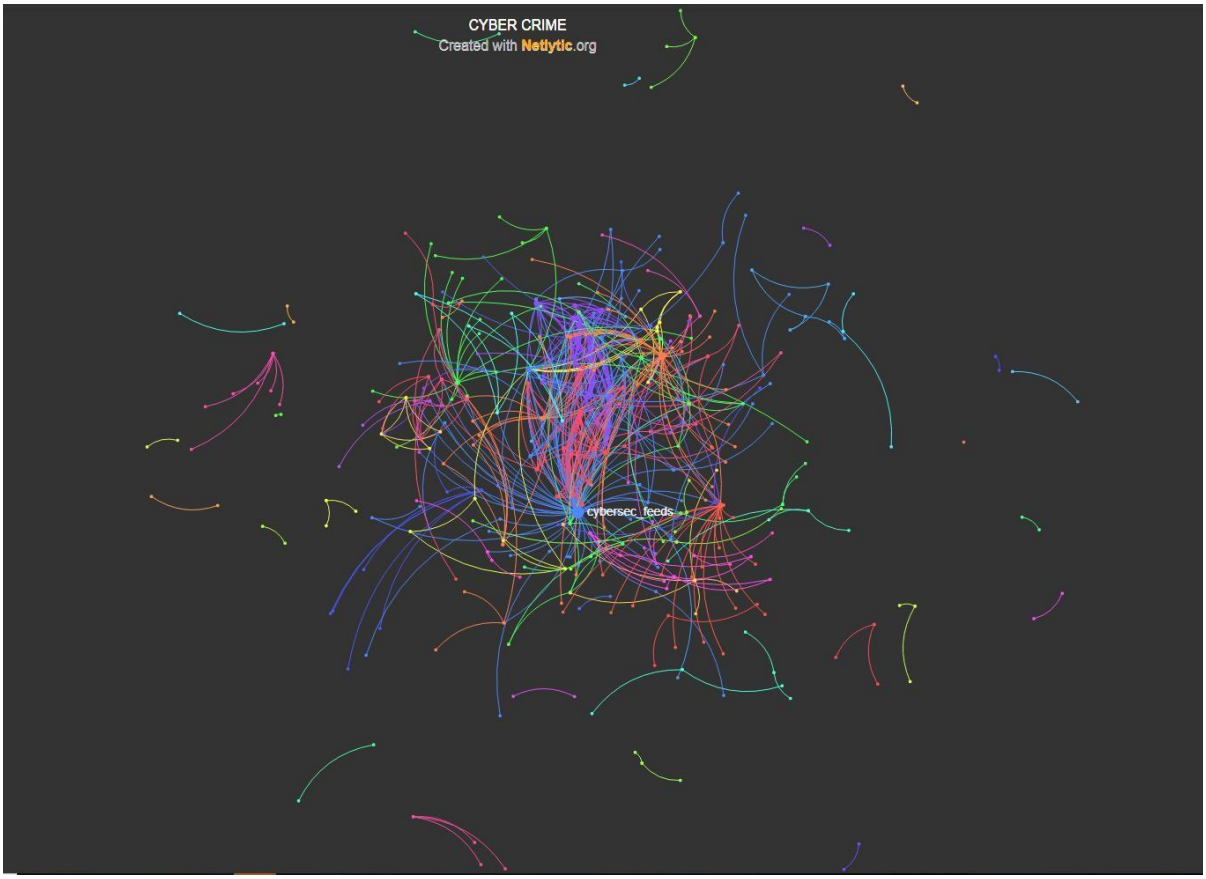


IMPROVISION OF NETLYTIC SOFTWARE :

ADVANCED SEARCH TERM : **CYBER CRIME**

WORD CLOUD :

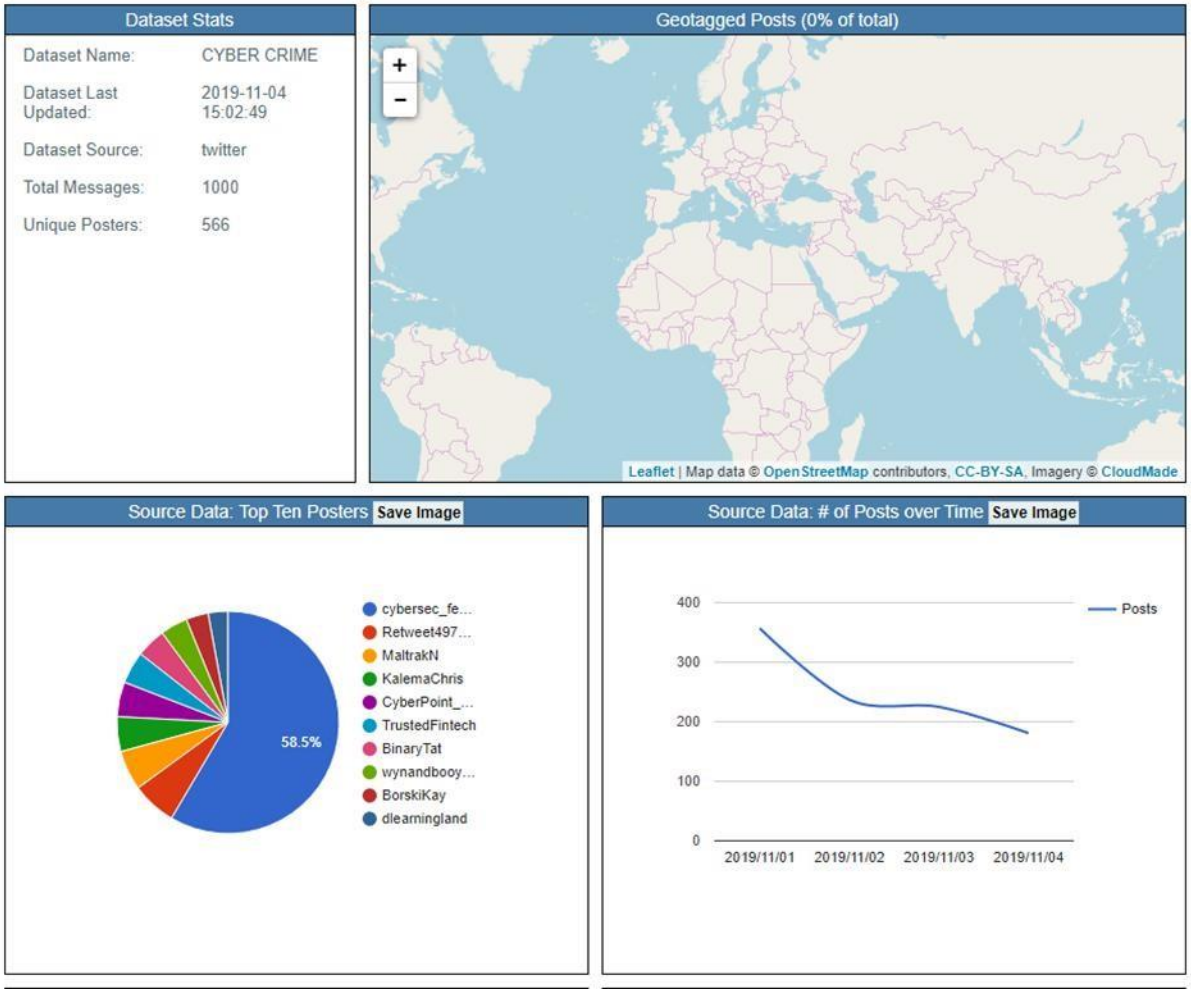
FRUCHTERMAN REINGOLD SIMULATION :

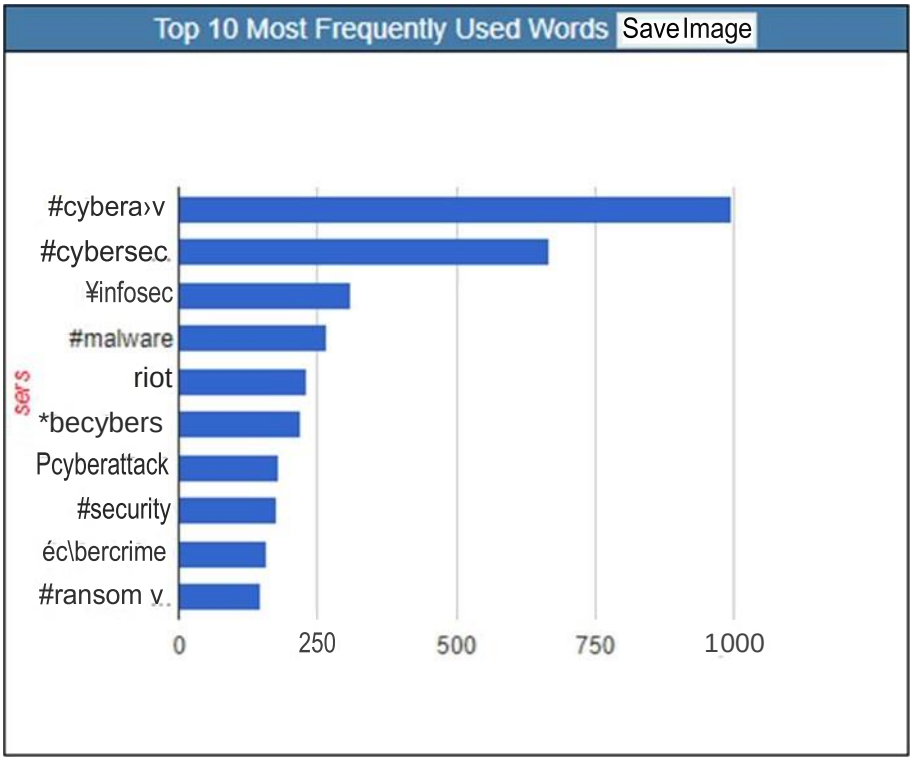


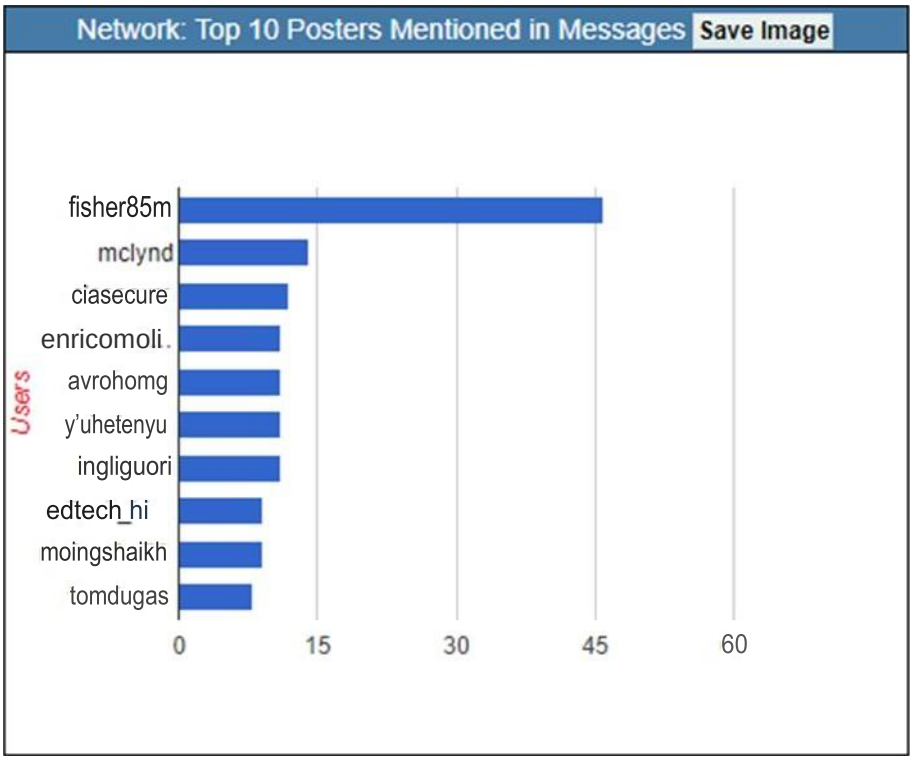
NETWORK PROPERTIES :

Diameter: 13
Density: 0.004020
Reciprocity: 0.048940
Centralization: 0.092610
Modularity: 0.772400

REPORT :


Dataset Stats
Dataset Name: CYBER CRIME
Dataset Last Updated: 2019-11-04 15:02:49
Dataset Source: twitter
Total Messages: 1000
Unique Posters: 566
Geotagged Posts (0% of total)
Leaflet | Map data © OpenStreetMap contributors, CC-BY-SA, Imagery © CloudMade
Source Data: Top Ten Posters Save Image
58.5%
cybersec_fe...
Retweet497...
MaltrakN
KalemaChris
CyberPoint_...
TrustedFintech
BinaryTat
wynandbooy...
BorskiKay
dlearningland
Source Data: # of Posts over Time Save Image
400
300
200
100
0
Posts
2019/11/01
2019/11/02
2019/11/03
2019/11/04


Top 10 Most Frequently Used Words
Save Image
#cybera›v
#cybersec
¥infosec
#malware
riot
*becybers
Pcyberattack
#security
éc\bercrime
#ransom v
0
250
500
750
1000


Network: Top 10 Posters Mentioned in Messages
Save Image
fisher85m
mclynd
ciasecure
enricomoli
avrohomg
y'uhetenyu
ingliguori
edtech_hi
moingshaikh
tomdugas
Users
0
15
30
45
60

PROGRAM 1:

(TO FIND LOCAL HOSTNAME AND IP ADDRESS)

Execute | Share | Source File | STDIN

```java
package com.crunchify.tutorials;

import java.net.InetAddress;
import java.net.UnknownHostException;

/**
 * @author Crunchify.com
 */

public class CrunchifyGetIPHostname {

    public static void main(String[] args) {

        InetAddress ip;
        String hostname;
        try {
            ip = InetAddress.getLocalHost();
            hostname = ip.getHostName();
            System.out.println("Your current IP address : " + ip);
            System.out.println("Your current Hostname : " + hostname);

        } catch (UnknownHostException e) {

            e.printStackTrace();
        }
    }
}
```

OUTPUT :

Result

```
$javac com/crunchify/tutorials/CrunchifyGetIPHostname.java
$java -Xmx128M -Xms16M com/crunchify/tutorials/CrunchifyGetIPHostname
Your current IP address : 3601d1976abd/172.17.0.2
Your current Hostname : 3601d1976abd
```

(PROGRAM 2)

Execute | Share Source File STDIN

```java
import java.net.InetAddress;
public class Main {
    public static void main(String[] args)
       throws Exception {
        InetAddress addr = InetAddress.getLocalHost();
        System.out.println("Local HostAddress:  "+addr.getHostAddress());
        String hostname = addr.getHostName();
        System.out.println("Local host name: "+hostname);
    }
}
```

OUTPUT :

Result

```
$javac Main.java
$java -Xmx128M -Xms16M Main
Local HostAddress:  172.17.0.2
Local host name: 3601d1976abd
```

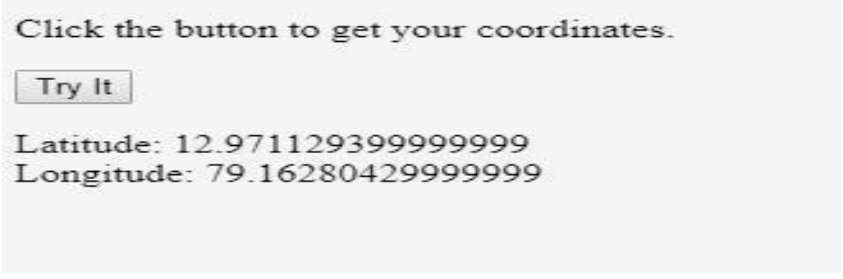
(PROGRAM 3)

(HTML CODE TO FIND CURRENT LOCATION OF THE HOST)

index.html

```
<!DOCTYPE html>
<html>
<body>

<p>Click the button to get your coordinates.</p>

<button onclick="getLocation()">Try It</button>

<p id="demo"></p>

<script>
var x = document.getElementById("demo");

function getLocation() {
  if (navigator.geolocation) {
    navigator.geolocation.getCurrentPosition(showPosition);
  } else {
    x.innerHTML = "Geolocation is not supported by this browser.";
  }
}

function showPosition(position) {
  x.innerHTML = "Latitude: " + position.coords.latitude +
  "<br>Longitude: " + position.coords.longitude;
}
</script>

</body>
</html>

```

OUTPUT :



CONCLUSION :

This composition put its eye not just on the comprehension of the digital violations but additionally clarifies the effects over the various levels of the general public. This will help to the network to verify all the online data basic associations which are not protected because of such digital violations. The comprehension of the conduct of digital culprits what's more, effects of digital wrongdoings on society will discover the adequate way to beat the circumstance. The best approach to conquer these wrong doings can comprehensively be grouped into three classifications: Cyber Laws (alluded as Cyber laws), Education and Policy making. All the above approaches to deal with digital wrong doings either are having very less huge work or having nothing in huge numbers of the nations. This absence of work requires to improve the current work or on the other hand to set new ideal models for controlling the digital assault..