Homework #2: OSINT

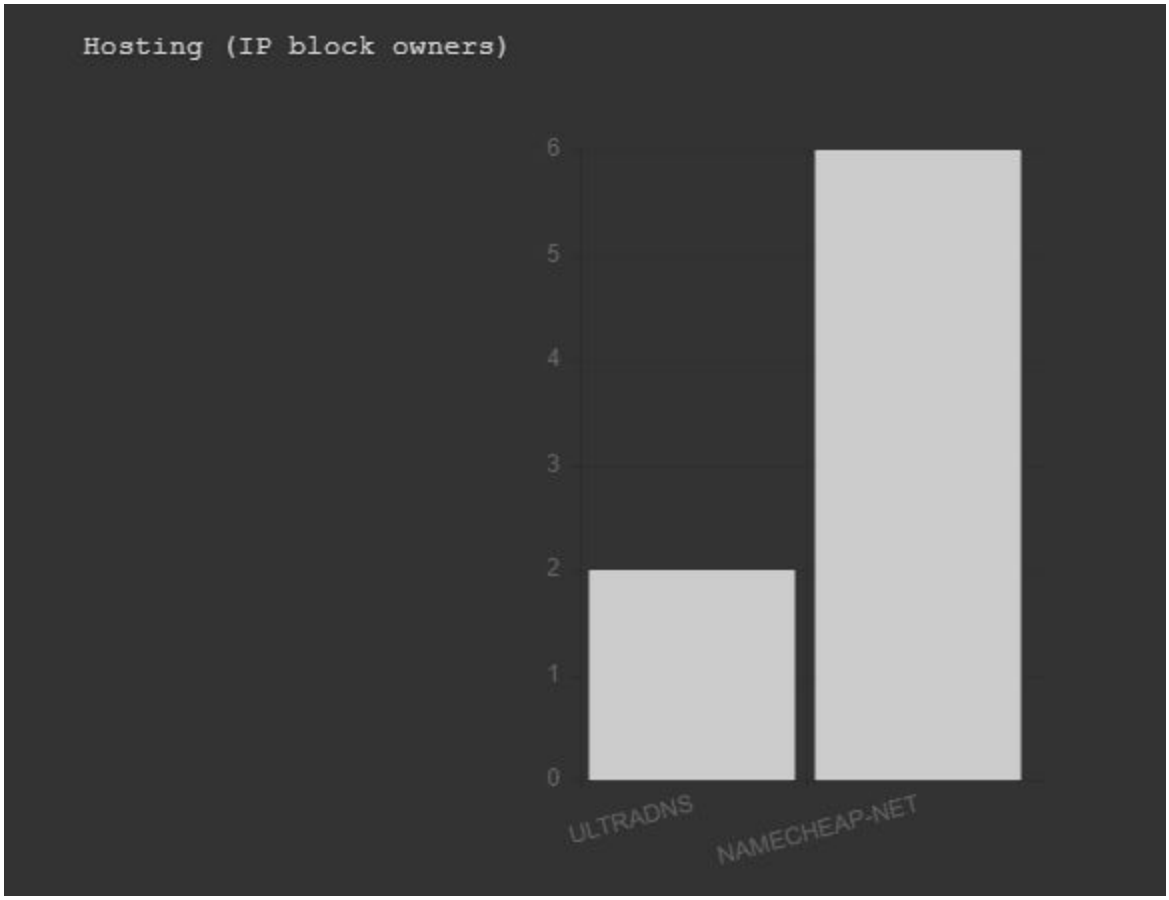
Honor Pledge: I pledge on my honor that I have not given or received any unauthorized assistance on this assignment/examination.

Assignment Goal: To apply the OSINT techniques discussed in lecture to solve a series of small challenges based around a fake scenario.

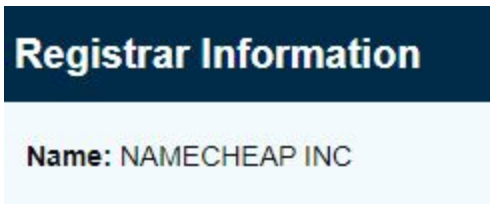
Consider the following scenario: An e-commerce company has suffered an attack by a hacking group. The company http://supersecure.store, has had their website defaced and some secret information has been exposed to the internet. You're a security analyst, who's goal is to use some OSINT techniques to discover information about the attackers.

1. Find information about the domain (25 points)
   Using DNSdumpster.com, I can ascertain that the host location is somewhere in the United States.

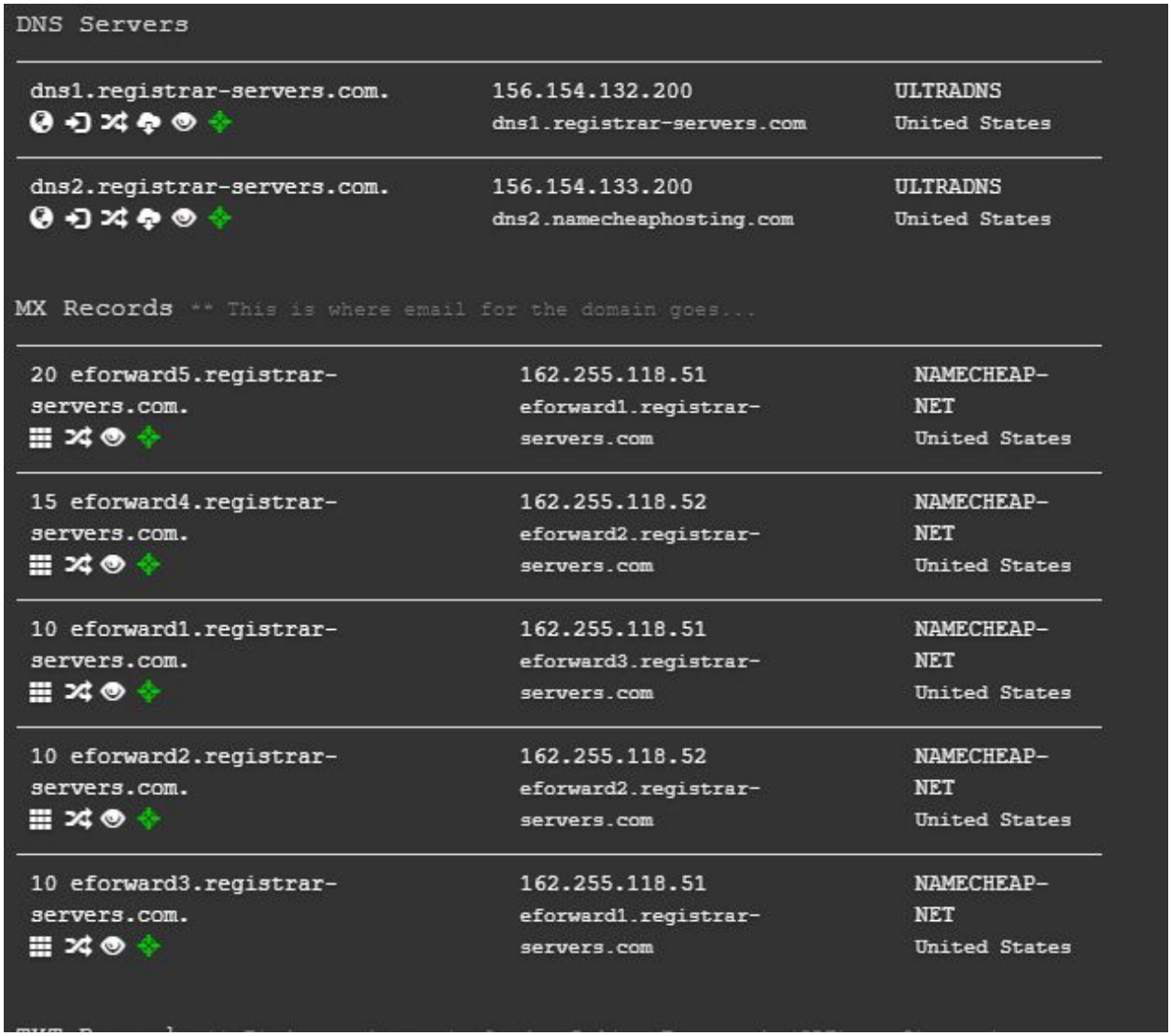
The domain is also registered through a registrar named NameCheap Inc.
From DNSDumpster:



From ICANN:



The IP address for the servers is 156.154.132.200 and for the email for the domain is 162.255.118.51. Source, DNSdumpster



DNS Servers

dns1.registrar-servers.com.	156.154.132.200 dns1.registrar-servers.com	ULTRADNS United States
dns2.registrar-servers.com.	156.154.133.200 dns2.namecheaphosting.com	ULTRADNS United States

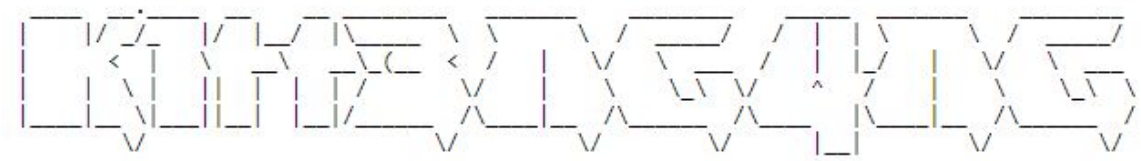
MX Records ** This is where email for the domain goes...

20 eforward5.registrar-servers.com.	162.255.118.51 eforward1.registrar-servers.com	NAMECHEAP-NET United States
15 eforward4.registrar-servers.com.	162.255.118.52 eforward2.registrar-servers.com	NAMECHEAP-NET United States
10 eforward1.registrar-servers.com.	162.255.118.51 eforward3.registrar-servers.com	NAMECHEAP-NET United States
10 eforward2.registrar-servers.com.	162.255.118.52 eforward2.registrar-servers.com	NAMECHEAP-NET United States
10 eforward3.registrar-servers.com.	162.255.118.51 eforward1.registrar-servers.com	NAMECHEAP-NET United States

A reverse IP lookup on Reverse IP Lookup - MxToolbox confirms that the DNS server is NameCheap Inc.

2. Check out the web scraper rules (25 points)
   Hidden login page http://supersecure.store:1337/
   Add “robots.txt” to the end of the URL http://supersecure.store/. So the URL becomes http://supersecure.store/robots.txt.

```
User-agent: Googlebot
Disallow: /

User-agent: k1tt3ng4ng
Allow: /

User-agent: *
Disallow: http://supersecure.store:1337/
```



Following the URL under “User-agent: *” will take you to the login screen.

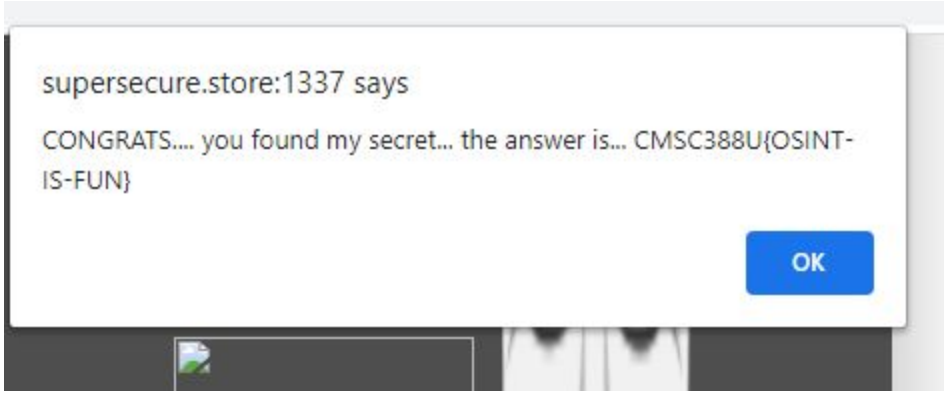
What pages are not allowed to be scrapped? (Hint: 🤖)
The pages that are not allowed to be scrapped are the pages after / at the end of the URL. as you can see in the above screen capture, the User-agent: GoogleBot disallows the ‘/’ to be viewed.

3. Find the credentials for the hidden login panel (25 points)
   After finding the secret login page, I right clicked and selected “view source”. This took me to this:

```
<head>
<link href="//maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min.css" rel="stylesheet" id="bootstrap-css">
<script src="//maxcdn.bootstrapcdn.com/bootstrap/4.0.0/js/bootstrap.min.js"></script>
<script src="//cdnjs.cloudflare.com/ajax/libs/jquery/3.2.1/jquery.min.js"></script>
<link rel="stylesheet" type="text/css" href="login-styles.css">
</head>
<script>
    function validate() {
        var username = document.getElementById("login").value;
        var password = document.getElementById("password").value;
        if(username == "k1tt3ng4ng" && password == "d0gzsuck") { // this is secure webdev at its finest
      alert("CONGRATS.... you found my secret... the answer is... CMSC388U{OSINT-IS-FUN}");
        } else {
            alert("WRONG PASSWORD");
        }
    }
</script>
<div class="wrapper fadeInDown">
  <div id="formContent">

    <div class="fadeIn first">
      <img src="" height=150px>
      <img src="http://pngimg.com/uploads/anonymous_mask/anonymous_mask_PNG32.png" width="25%" height="25%" alt="Hack Teh Planet" />
    </div>

    <form>
      <input type="text" id="login" class="fadeIn second" name="login" placeholder="login">
      <input type="text" id="password" class="fadeIn third" name="login" placeholder="password">
      <input type="submit" onclick="validate()" class="fadeIn fourth" value="Log In">
    </form>

    <div id="formFooter">
      <a class="underlineHover" href="http://www.nyan.cat/cats/pirate.gif">Need a Password?</a>
    </div>

  </div>
</div>
```

As you can see, on line 11, the username and password (credentials) are plainly in view.
Username: `k1tt3ng4ng`
Password: d0gzsuck

After this login, a JavaScript message pops up



The secret message is : CMSC388U{OSINT-IS_FUN}