

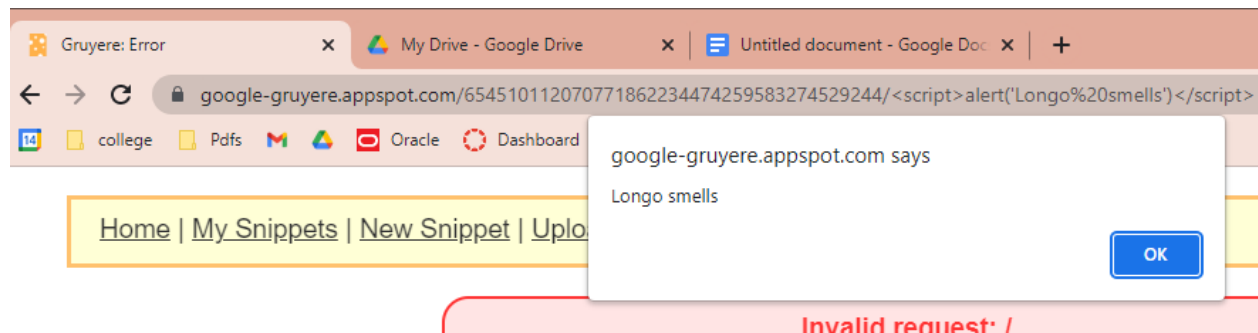
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SEC-260

Challenge 1 - XSS

On the right side of the Codelab page, you will find links to challenges. To further understand XSS techniques, complete the following 3 challenges:

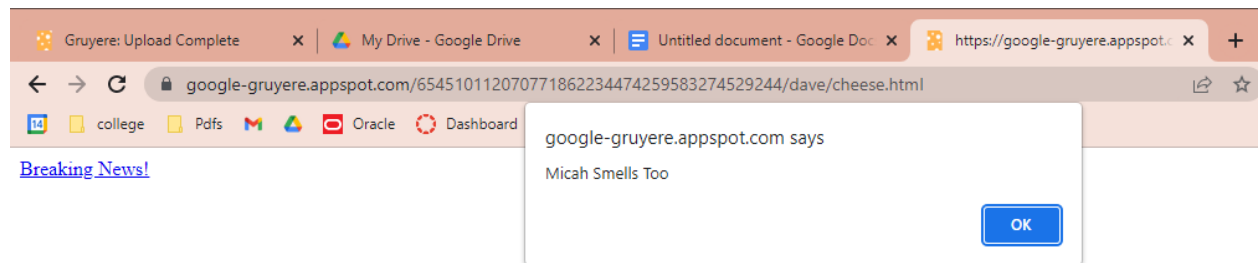
1. Reflected XSS



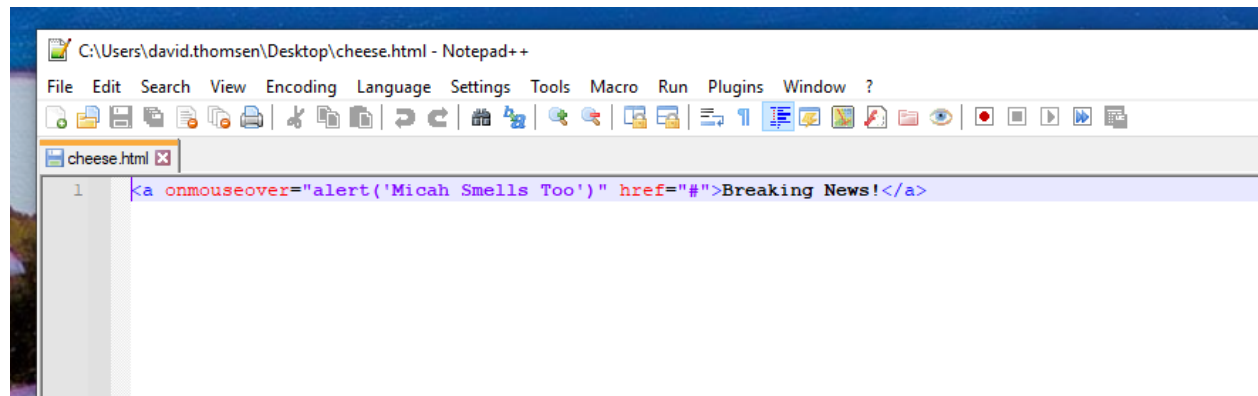
a.

2. Stored XSS

a.



b.



3. Stored XSS via HTML Attribute

a.

The screenshot shows a web browser window with the URL `google-gruyere.appspot.com/654510112070771862234...`. A security warning dialog box is displayed in the center, stating "google-gruyere.appspot.com says" and "1". The background page is titled "Gruyere: Profile" and features a yellow background with orange circles. The page has a navigation bar with links: "Home", "My Snippets", "Profile", and "Sign out". The main content area is titled "Edit your profile." and contains the following form fields:

- User id: dave
- User name:
- OLD Password:
- NEW Password:
- Icon: (32x32 image, URL to image location)
- Homepage:
- Profile Color:
- Private Snippet:

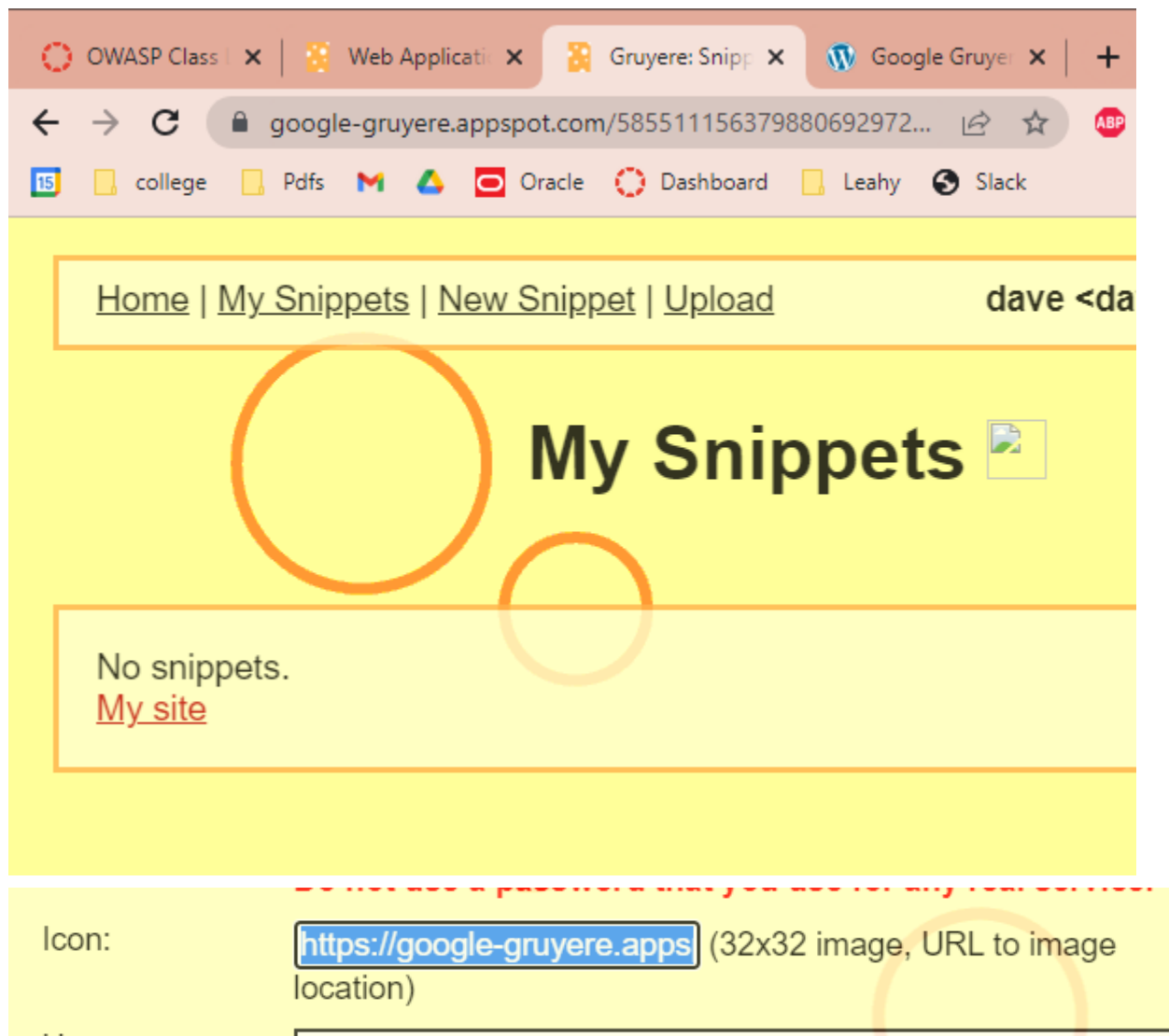
A red warning message is displayed below the password fields: "WARNING: Gruyere is not secure. Do not use a password that you use for any real service."

b.

Challenge 2 - XSRF

Find a way to trick someone into deleting one of their Snippets

Submit:



1. <https://google-gruyere.appspot.com/585511156379880692972338957215780276385/deleteSnippet?index=0>
 - a. (could disguise this with a bit.ly, didn't so you can see the syntax.)

Screenshot demonstrating the CSRF exploit

Brief description of how CSRF and XSS can be used together

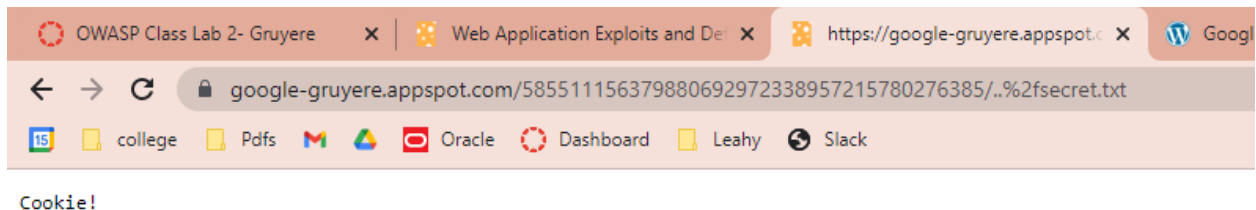
By using XSS to create a link that may end up causing harm to a user's account or data, you can use CSRF to disguise it as another link or make it less obvious that it is malicious.

Challenge 3 - Information Disclosure by Path Traversal

See if you can read the contents of the "secret.txt" file on the Gruyere server using a path traversal attack. Hint: you will likely need to use percent encoding to specify the path in the browser

Submit:

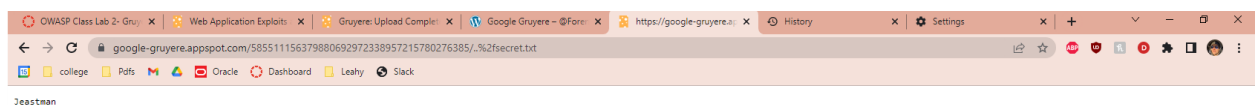
Screenshot of the secret.txt file contents



What was the URL you used to access the file?

google-gruyere.appspot.com/98469834098234895723098498/..%2fsecret.txt

Challenge 4 - Data Tampering by Path Traversal



Follow the challenge hints and see if you are able to overwrite the existing secret.txt file with a new one that you created.

Hint: After you replace the secret.txt file - try and load it from a different browser session as there seems to be some session issues that will keep the old file loading even if you clear the cache.

Submit:

Screenshot of the new secret.txt file contents being served by the Gruyere app

Briefly describe how an attacker could use this file replacement vulnerability to compromise a web server

An attacker could use this vulnerability to replace key files that make the web server operate, or they can use it to keep a back door open if they want to get back into the server at some point.