

Exercises

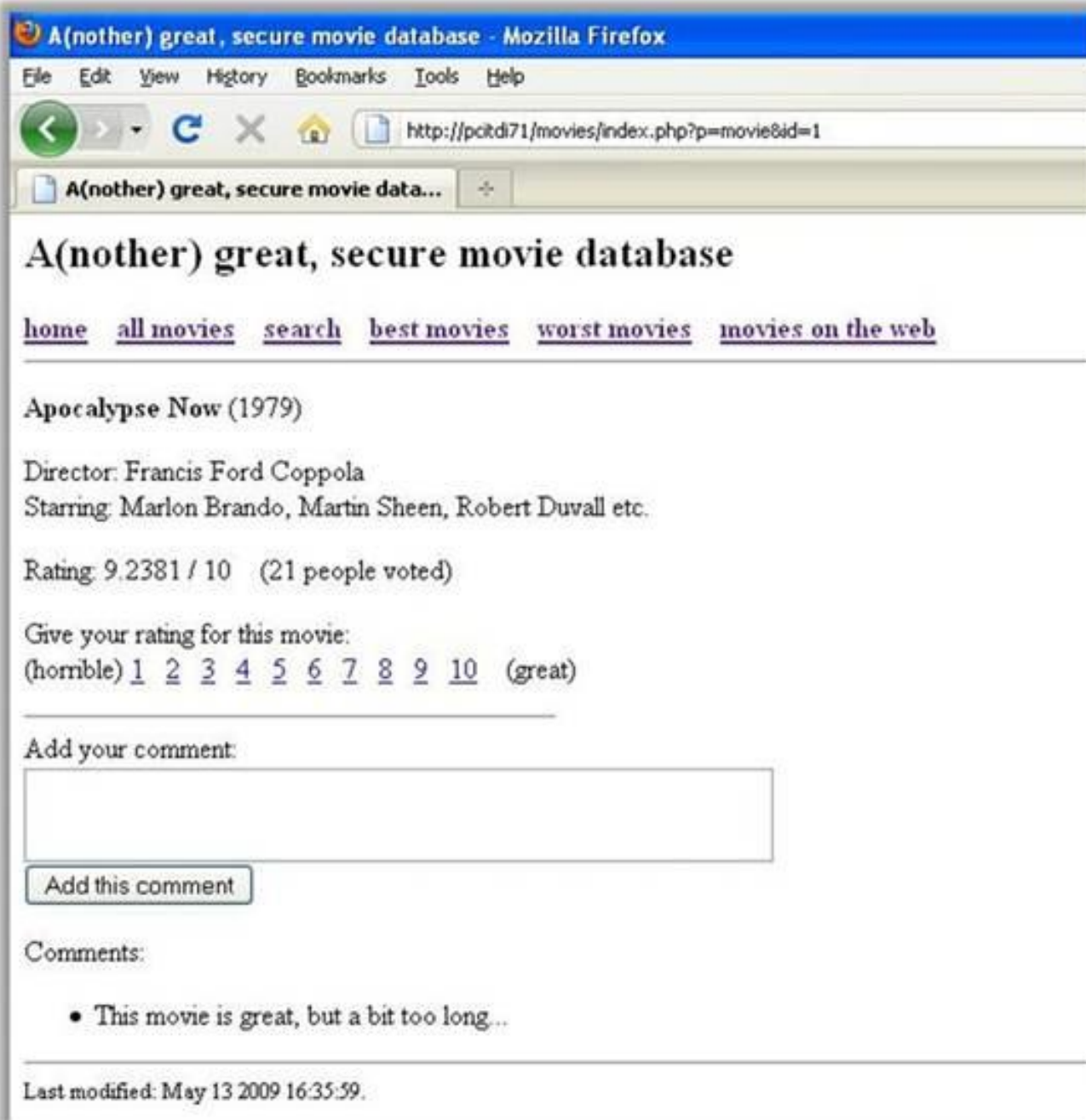
Software security

Exercises

- Small pieces of code in C, Java, web (PHP), Javascript

sample	C		Java	Web					JS
#1	#1	#2	#1	#1					#1
				question 1	question 2	question 3	question 4	question 5	

- Find security vulnerabilities
- Exploit them
(as an external attacker, without changing the code)
- Correct them
- Any order – start with your programming language
- Javascript exercise is an extra challenge



A screenshot of a Mozilla Firefox browser window displaying a web page titled "A(nother) great, secure movie database". The browser's address bar shows the URL "http://pcitd71/movies/index.php?p=movie&id=1". The page content includes a navigation menu with links for "home", "all movies", "search", "best movies", "worst movies", and "movies on the web". The main content area features the movie "Apocalypse Now (1979)", listing the director as Francis Ford Coppola and the starring cast as Marlon Brando, Martin Sheen, and Robert Duvall. It also shows a rating of 9.2381 / 10 based on 21 votes and a rating scale from 1 (horrible) to 10 (great). Below the rating is a comment form with a text input field and an "Add this comment" button. A single comment is displayed: "This movie is great, but a bit too long...". The footer of the page indicates it was last modified on May 13, 2009, at 16:35:59.

A(nother) great, secure movie database

[home](#) [all movies](#) [search](#) [best movies](#) [worst movies](#) [movies on the web](#)

Apocalypse Now (1979)

Director: Francis Ford Coppola
Starring: Marlon Brando, Martin Sheen, Robert Duvall etc.

Rating: 9.2381 / 10 (21 people voted)

Give your rating for this movie:
(horrible) [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) (great)

Add your comment:

Comments:

- This movie is great, but a bit too long...

Last modified: May 13 2009 16:35:59.

PHP

PHP exercise is a sample Web application

“Movie database”

- play with it a bit, to see what it can do
- 5 sub-questions about different vulnerabilities
=> because Web applications are often vulnerable
- **even if you don't know PHP, try it** – it's easy
(and you may need it one day)

Hints, solutions, answers

If you don't know how to proceed, **see the hint**

If you are still stuck, **see the solution**

Start with the **sample exercise** to see how hints and solutions work

When **providing answers**:

- try different things
- call me if you are sure that you have a good answer, but docs don't accept it

After providing a correct answer => **read the solution**
(you may still learn something interesting!)

The goal

- **Complete at least 3 exercises**
 - displaying hints and even solutions is OK
 - the more exercises completed the better
- **Competition**: which team solves most (all?) exercises?
 - (without seeing solutions)
- But the main goal is TO LEARN



1. Go to <https://cern.ch/csc-security>

2. Log in with your CERN account

3. Enter your table number + both names

Your name(s) is/are

4. Follow instructions from the “Download” section

- **Download**

Download and prepare the exercises

5. Visit the “Movie Database” app:

<https://whitehat.cern.ch/movies?key=xxxxxxx>