

CTF Problems

October 26, 2017

Overview

Here are a list of problems we'll be tackling this session! They're divided into categories based on difficulty and this will give you insight into what California CTF will be like next year. We'll keep adding to this google doc throughout the quarter. Also, some of the links may seem sketch, but I tested them out and they're fine.



Beginner Problems

These problems are from pwnable.kr and they also happen to have video solutions online! All you need for these problems is the ability to read code and google. So, no prior experience required, just the ability to Google!

Next week, we'll be going into depth with specific problem types. Remember to poke a mentor if you get stuck. :)

fd

Topic: Unix file descriptors (& file descriptions, duh)

URL: <http://pwnable.kr/play.php>

Where can my robot go?

Topic: Web Hacking, Website crawling

URL: https://ctflearn.com/index.php?action=find_problem_details&problem_id=107

CTFLearn: Web4

Topic: SQL Injection

URL: <http://web.ctflearn.com/web4/>

CTFLearn: Book Report

Topic: Cryptography

URL: https://ctflearn.com/index.php?action=find_problem_details&problem_id=99

CTFLearn: Forensics 101

Topic: Steganography

URL: https://ctflearn.com/index.php?action=find_problem_details&problem_id=96

Intermediate to Advanced Problems

Here are some more problems for people with prior CTF experience! Remember to poke one of the mentors if you get stuck at any step.

flag

Topic: Reverse Engineering

URL: <http://pwnable.kr/play.php>

cmd1

Topic: Linux - Path Variables

URL: <http://pwnable.kr/play.php>

Single-byte XOR cipher

Topic: Cryptography

URL: <https://cryptopals.com/sets/1/challenges/3>

Over the Wire

Topic: This website covers a variety of topics, from reverse engineering to crypto.

URL: overthewire.org/wargames/

Resources

- CTF UCLA 2017's Beginner's Guide (tons of resources listed here):
 - tinyurl.com/ctfbeginnersguide
- KITCTF's Guide
 - <https://kitctf.de/learning/getting-started>
- https://www.reddit.com/r/netsecstudents/comments/2wdkle/any_beginner_guides_for_ctf/
- Trail of Bits:
 - <https://trailofbits.github.io/ctf/>
- SSH tutorial for Windows users
 - https://support.suso.com/supki/SSH_Tutorial_for_Windows