



Ethical Student Hackers

Making a CTF

The Legal Bit

- The skills taught in these sessions allow identification and exploitation of security vulnerabilities in systems. We strive to give you a place to practice legally, and can point you to other places to practice. These skills should not be used on systems where you do not have explicit permission from the owner of the system. It is VERY easy to end up in breach of relevant laws, and we can accept no responsibility for anything you do with the skills learnt here.
- If we have reason to believe that you are utilising these skills against systems where you are not authorised you will be banned from our events, and if necessary the relevant authorities will be alerted.
- Remember, if you have any doubts as to if something is legal or authorised, just don't do it until you are able to confirm you are allowed to.

Code of Conduct

- Before proceeding past this point you must read and agree to our Code of Conduct - this is a requirement from the University for us to operate as a society.
- If you have any doubts or need anything clarified, please ask a member of the committee.
- Breaching the Code of Conduct = immediate ejection and further consequences.
- Code of Conduct can be found at
<https://shefesh.com/downloads/SESH%20Code%20of%20Conduct.pdf>

What is a CTF?

CAPTURE THE FLAG

Attack defend - Teams compete to keep their systems running by defending their infrastructure and attacking other teams.

Jeopardy style - Lots of different challenges of varying topics and difficulties. Teams compete to get the most points and top the leaderboard.

Jeopardy Style - Key Components

- Know your audience
 - Select challenge categories
- Select a theme (optional but fun!)
 - Choose a framework to use
 - Write the challenges

Audience

Who are they? **Students, professionals, beginners...**

What do you want out of your ctf? **Just for fun, recruitment stage...**

What technology will they have available? **Cost of tools, specs of laptops...**

Where will the CTF take place? **Online, in person...**

Do you want teams or individuals?

Challenge Categories

Web, Forensics, Miscellaneous, Cryptography,
Networking, Reverse Engineering, Pwn/Exploit, Real
Life, Trivia/Recon

Theme

Themes make it fun!



Framework

Your framework needs to handle the challenges you write!

CTFd - Free and open source, option of hosting for you (paid)

<https://demo.ctfd.io/>

AWS/Google Cloud/Azure - Used to host your CTF. We will be using AWS

Note: Some of the cloud platforms have policies for pen testing. Please check their policies before hosting with them :)

Write the challenges

- Work as a team
- Try to be creative
- Look at past CTFs for inspiration <https://ctftime.org/>
- Look at tools available
<https://github.com/apsdehal/awesome-ctf>
- Don't over complicate things (unless you are making a very, very hard challenge!)

Making a basic CTF

Set up CTFd

Create a couple of challenges

Challenge for you to solve

Upcoming Sessions

What's up next?

www.shefesh.com/sessions

15th March - Web App Hacking

22nd March - HTB Walkthrough

Easter Break

Any Questions?



www.shefesh.com
Thanks for coming!