

Proposal for conducting an Capture The Flag event (CTF)

Cyber security is a high priority of companies, small and big, as cyber attacks have been on the rise in recent years. In response to these attacks, security professionals and college students have been through rigorous training as how hackers are able to get into the companies and how to defend against them. One way of cyber security training is through a cyber security capture the flag (CTF) event. A cyber security CTF is a competition between security professionals and/or students learning about cyber security. This competition is used as a learning tool for everyone that is interested in cyber security and it can help sharpen the tools they have learned during their training.

These events consist of a series of challenges that vary in their degree of difficulty, and that require participants to exercise different skill sets to solve. **Once an individual challenge is solved, a “flag” is given to the player and they submit this flag to the CTF server/ report based on how this challenge was cracked.** The challenges can be a wide range of topics like **web application vulnerabilities, operating system hardening, reverse engineering, encryption, social engineering, cryptography** and the list goes on. The challenges can be any combination of these topics and individual ones too.

Duration of the event is decided based on the difficulty level of the challenges selected. Generally ,it is around 12-48 hrs.

Skill set requirements for CTF:

- Basic knowledge about client and server communication
- Networking basics
- Basic knowledge about OS architecture (linux and windows)
- Basics of web exploitation and system hacking
- Knowledge about OWASP top 10

Evaluation criteria :

The participants who stand in the top 3 positions will be declared winners. The participants are scored based on the difficulty level of the challenge they solve, the time they take to submit their write ups and how well they explain their walkthrough in the write up . The write up should consist detailed explanation on how they cracked the challenge .The scores are predefined for each challenge before the start of the event