**COMPUTER SUBJECT:** BASIC NETWORK CONCEPTS

**TYPE:** GROUP WORK EXERCISE/DISCUSSION

**IDENTIFICATION:** HOMEWORK1/MC

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**LEVEL:** EASY

**DURATION:** 1-3 hours

**SIZE:** 100 lines!!

**OBJECTIVE:** Introduction to network basic

**REQUIREMENTS: Computer Security**

**COMMANDS:**

IDENTIFICATION: HOMEWORK1/MC

# CSF Chapter 1 Assignments

The following assignments must be solved in groups (4-5 persons) and followed up by a short presentation in the class later.

Assignment 0

Find 10 security threats/attacks and for each state:

* type(direct/indirect)
* likelihood (high, medium, low), how likely is this attack
* impact (high, medium, low), how severe is the damage of a successful attack

Assignment 0 Overview of attacks

|  |  |  |  |
| --- | --- | --- | --- |
| No# / Type | Category | Impact | Likelihood |
| 1 DDOS | Direct | High | High some companies |
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ref: <https://www.hongkiat.com/blog/famous-malicious-computer-viruses/>
ref: <https://www.popsci.com/scitech/article/2009-04/top-10-computer-viruses#page-11>

Assignment 1

Visit <http://www.digitalattackmap.com/>

Pick out 1-2 interesting periods of activity and describe the following:

* + The date (period)
	+ A major botnet’s activity and list:

Source and Destination

How long the attack has been occurring

How has the attack been pulled off?

At home watch the video by Stephen Vries at

<https://www.owasp.org>

Assignment 2

Find at least two major companies/organizations/NGO’s that have been attacked lately.

Explain what happened and how the company handled the situation.

Assignment 3

Look at the following keywords and state a short answer:

1. What is confidentiality?
2. What is integrity?
3. What is authentication?
4. What is authorization?
5. What is availability?
6. What is a Denial of Service (DoS) attack?
7. What is DDos?
8. What is a virus?
9. What is a Trojan horse?
10. What is a worm?
11. What is a botnet?
12. What is a zero day?
13. What is an n-day?
14. Is a bug the same as vulnerability?
15. What is a weakness?
16. Name 4 ways an attacker can act anonymously online

Assignment 4

Look at your list from assignment 0.

Then choose 1-2 of these attacks and detail the description, i.e. state the:

* exploitability, how easy is it to do (and possibility of doing it)
* prevalence(likelihood), how often does it occur (how common is it)
* detectability, how easy is it to detect the vulnerability
* impact, how severe is the damage of a successful attack

all using the scale: high, medium, low

Tip: Take a good look at [www.owasp.org](http://www.owasp.org) …..find top ten security risks