Introduction to web security

**Module Description:** This module discusses security problems on the web, with a focus on web browser security. Other security issues include spam, phishing.

**Prerequisite Knowledge:**  Students are expected to understand the introduction to cybersecurity concepts module.

**Length of Completion:** This module includes 1 micro modules. The total length of the module is around 8 hours which include 4 hours for the labs.

**Level of Instruction:** This module intended for upper division undergraduate students majoring in computer science or computer engineering.

**Learning Setting:** This module is suitable for many forms of delivery: online/in-class/hybrid.

**Lab Environment:** None

**Activity/Lab Tasks:** There will be in-class discussion and an out-of-class written assignment.

**Lab Files that are Needed:** None

# learning outcomes

MODULE learning oUTCOMES

* Students will be able to understand attacks against browsers.
* Students will be able to understand injection attacks, such as SQL injection attack, cross site scripting attack.
* Students will be able to understand spam and phishing.

# module Details

**Instructional Files and Online Resources that are Needed:**

Slides:

Lesson 1: Web attacks (CSP-M5-L1.pptx)

**Assessment:**

Written homework questions (CSP-HW5.docx)

# lessons

**Overview of Lessons:**

Lesson 1: Web attacks

**Lesson 1 Learning Outcomes:**

Upon completion of this lesson:

* Students will be able to understand attacks against browsers.
* Students will be able to understand injection attacks, such as SQL injection attack, cross site scripting attack.
* Students will be able to understand spam and phishing.

**Lesson 1 Details:**

**Warm Up:**

What problems do they see when using browsers? Shopping habits are being recoded? Some tools got installed automatically?

**Lesson:**

Topics to be covered in this lesson include:

* Attacks against browsers

Malicious websites

* Injection attacks
* Spam and phishing

**Active Learning Activity:**

Discussion:

How to identify phishing email from regular emails?

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