Secure Code Team Based Final Project

Purpose

The purpose of the project is to research, as a team, a secure code topic in more detail, and to present your findings to the class. The project will be an in-depth survey of a secure code topic.

Deadlines

There are three official deadlines or the project.

Submission of the Topic: Due: Thursday, July 29, 2021
Presentation Slide Set: Due: Sunday, August 8, 2021
Presentations: Due: Monday, August 9, 2021, and August 11, 2021
Projects Quiz: Due: Wednesday, August 11, 2021 by 11 pm

Choosing a Topic

Choose an area of interest within secure code concepts. Ideally, this is intended to be a small research project. Your work must include code samples and defense. You work must include code samples and defense. Choose from the topics below:

- Operating System Security
  - discussion can include, access control and file system security, user authentication, authentication in remote file systems, intrusion detection
- Threat model of some system. Example threat model of an Automated Teller Machine
  - Identify parts of the system (user interface, data base, etc.), how they will be represented, who will have access
  - Use STRIDE as part of modeling process
  - Identify security features the different components of the system should have (e.g. where should encryption be used and what type, etc.)
- Cryptography
  - discussion can include, different types, appropriate use, blockchain and application of cryptography.
- Other ideas in the secure code realm, not the network security realm.

Doing the Work

It is recommended that you start on the project early allowing time for any difficulties that might arise unexpectedly. It is also a good idea to allow yourself time to write up your project. The point of the project is to take something we've looked at to a deeper level, don't just regurgitate what we've already discussed, teach us something we don't know!

Presentation

Presentations will be a 5 minutes per team member (team of 2 would be 10 minutes minimum, all other teams will be 15 minutes minimum no more that +2 minutes) demonstrations/presentations to the class during class times. Order will be determined randomly so be prepared to present on day one.

Submitting your Idea(s)

By Thursday, July 29, 2021 submit a PDF containing three proposals where each proposal is at least one-half page. The proposals will include the topic idea, what you believe you will need to do to complete the project and what the final product will look like as well as what your presentation will involve.

Each team will submit a single PDF. The proposal will contain at the very top the team members names in alphabetical order by last name.

The pdf will be named team number fpp.pdf (Example: team16fpp.pdf)

Your proposal is your architectural overview of your project. You can use it as a roadmap for what you are trying to accomplish, with your project and how it will be presented.