Module 19
(Group and Individual Projects)

• At the end of this module, you should understand the types of projects that you can do for this class (you must do one). You should know what the deliverables are for each type of project and have a good idea what the schedule for the deliverables will be.
Undergraduate Project Groups

• Undergraduates will work on projects in groups of 2 to 4 people.
• Project groups are self-organized and will be identified by the end of class today.
• People who are absent today will either join existing groups or be formed into a single absentee group.
• Each project group will identify a leader and communicate their members and leader to me.
Project Types

- Open source security project
- Report on some current security issue/concern
- Laboratory exercise development (grad only)
Open-source Projects

- Identify an open-source security project that can benefit from your help. One source of these is the Open Web Application Security Project: 
  https://www.owasp.org/index.php/Category:OWASP_Project
- Other projects, like w3af, open source extensions to the Burp suite
- Convert Malzilla to some language other than Pascal
- Actionscript bytecode debugger (perhaps modify Monster debugger)
- Nikto (http://www.cirt.net/nikto2) Look at issues on github (good plan for finding what's needed on any open source project).
Project: What do you Deliver to Me?

- Project concept (One paragraph by next Tuesday)
  - What project will you work on and what do you propose to do for it?
  - I may reject this or ask for changes.
- Project plan (One page by the following Thursday)
  - How will you do it?
  - What is your schedule?
- Project updates (When solicited throughout the semester)
- Project report (Draft due by Thanksgiving, final due last class).
Reports

• The report-based projects will address some current security issue.

• The report-approval process is the following:
  – Research issue
  – Write draft report
  – Provide draft to instructor by the end of October
Report: What do you Deliver to Me?

- Paper concept (One paragraph by next Tuesday)
  - What security issue will you address?
  - I may reject this or ask for changes.
- List of references (Due by the following Tuesday)
- Paper drafts (When solicited throughout the semester)
- Report (5-8 pages in IEEE style, final due last class).
Lab Exercise Projects

- Project to be carried out in a virtual machine network

- Types:
  - Vulnerable dynamic (possible database backed) web site
  - Interesting Vulnerable server configuration

- Sources of ideas:
  - http://exploit-db.com
  - Metasploit exploit lists
Lab: What do you Deliver to Me?

• Lab concept (One paragraph by next Tuesday)
  – What kind of lab exercise will you develop?
  – I may reject this or ask for changes.

• Lab exercise development plan (Due by the following Tuesday)

• Interim project updates (When solicited throughout the semester)

• Report (explains vulnerability, how it is discovered, and how it is exploited, together with any necessary configuration information) and one or more VMWare VMs in the correct snapshot state to begin the lab.