1. What activities did you complete for your senior project?

I successfully completed the design of the network and the construction of the network. All virtual machines are able to communicate and send data to one another. The attacker machine was also created and able to communicate to the machines. As an initial exploit, the buffer overflow python script is successful in exploiting one of the user machines. From there it is possible to pivot to the other user in the network. After this I ran through a group of active directory exploits that are commonly used and was able to effectively use them against the Windows default settings. After moving laterally as far as I could, I documented each of the exploits. After this I started on a report with detailed documentation and instructions for remediation. Finally, I created an automated PowerShell script that is able to be run in order to change the password policy on all machines, require SMB message signing, disable LLMNR, and disable NetBIOS.

1. How much time did you spend on your senior project?

100-120 hours

1. What problems did you run into?
   * Network connectivity issues
   * User account setup issues
   * Overflow python script testing and issues
   * Bloodhound being blocked by Windows Firewall
   * TIME!

1. What activities do you plan to do next week for your senior project?

I will complete the finalized report on the exploits found and remediations to the vulnerabilities and create a detailed list of steps on how I intend to demonstrate the finalized project to the committee.

1. Are you on track to complete your work on time?

**Yes**