A list of ideas for what your project could do. Each will require your own research and testing to build out the script. You should think beyond the basic functionality and consider options like HELP and the look and feel of the Interface. Some of these ideas would be good to package together in your project (i.e. file integrity check and backup)

- **File integrity checker** (Script that checks critical files such as /etc/passwd and /etc/shadow and compares their hashes against a known good copy of the files to determine if they have been modified or not. If they have been modified then it could provide some sort of notification to you)
- **Backup script** (Script performs a backup of critical files and provides a report in some form)
- **Host discovery script** (you could add include prompts to the user for specific information and options for how the host discovery scan works such as number of pings)
- **Port scan script** (Most difficult suggestion so far but you can build one with bash - think of what nmap and Nessus do and try to emulate the very basic functionality of that in a script)
- **VPN connection** (Create a secure VPN to another system, monitor connection for a man in the middle attack and have it disconnect if it detects one)
- **Backdoor script** (Create a custom service on the victims machine that triggers a 'reverse shell connection' when the computer starts up, or have a script that creates a new user with sudo permissions and have the user be placed in the middle of the /etc/passwd file instead of at the bottom to avoid detection)
- **Post-Exploitation script** (Script that performs a post exploitation task such as extracting data meeting certain criteria or a keylogger which saves all information typed into the terminal to a log file that is sent to the attacker periodically)
- **Privilege Escalation script** (Create your own script that you can upload to a compromised Linux server and execute to automate the finding of information and misconfigurations)
- **Task Automation** (Think of any task that you find you are performing on a regular basis in the terminal and think through how you could automate it. Things you can add include prompts for user input, interactive menus, options for output, ability to have task perform every X seconds/minutes/hours)
- **Wi-Fi** (Last year, one student made a script that would monitor a selected Wi-Fi interface, display discovered SSID's, prompt for variety of attacks that could be attempted against a specified SSID)
- **Own Version of Existing Tool** (Review what tools you have enjoyed using previously, or tools that you used that lacked functionality you required. Can you use Bash to create a script that offers similar functionality?)