

Project Proposal

Grant Haataja, David Wilson, Michael Turnbull

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For our class project the 3 of us would like to collaborate and create a hacking game. The premise will be as follows: The user will play as a penetration-testing AI tasked with gaining control of multiple machines.

To create the game, we will simulate an operating system in a shell environment, using the common necessary Unix commands. We will also add commands of our own for penetration testing tools, such as information gathering, port scanning, vulnerability scanning, password cracking, and so on.

To create the game, we will use many important penetration testing concepts we learned in this class over the past few weeks, to make the game as close to realistic penetration testing as possible. Each of the phases of a penetration test will be observed and modeled in the game.

We will use python3 to write the scripts that will model the environment and the machines to be hacked in the game. There will also be dialogue and a storyline with multiple endings based on player actions.

Lastly, since playing the game will be a simulated penetration test, our final report will be a formalized report of our simulated AI hacking the machines in the game. The report will include all specifications listed for this project.