Cyrin Automated Testing

Team Members: Ren Aamodt, Neal Buerman, Jack Lyrek, Mason Kornezos
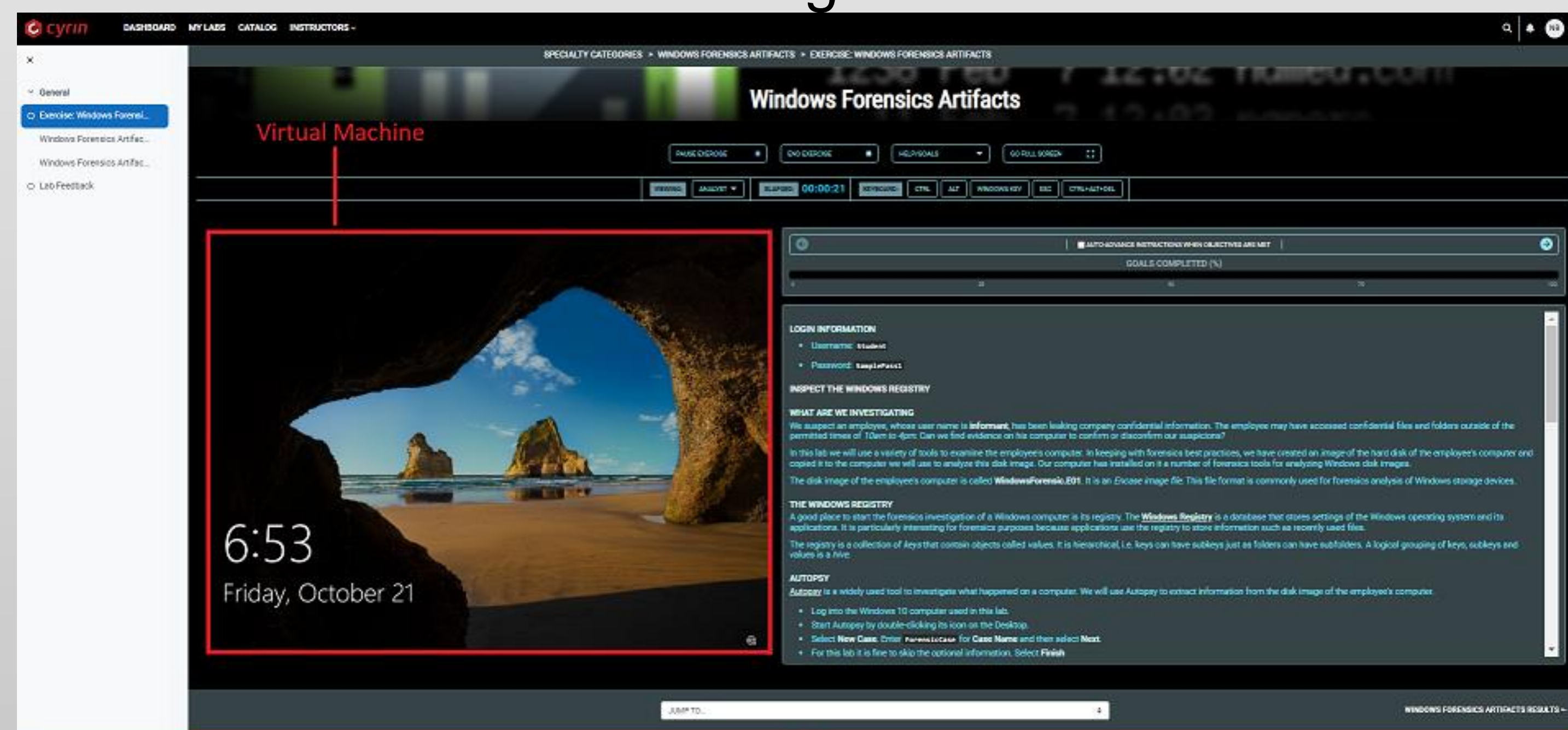Sponsor: ATCorp

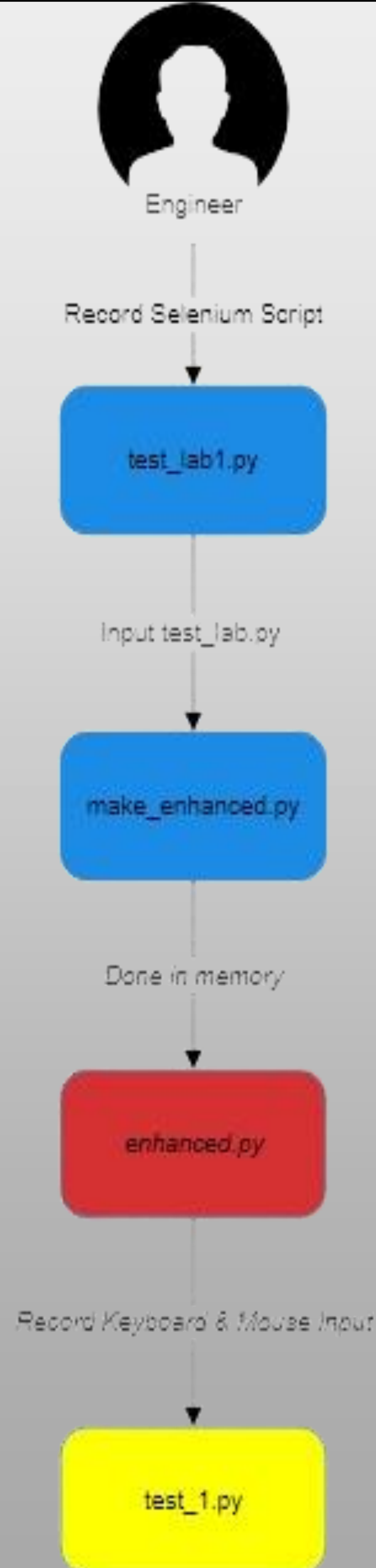ARCHITECTURE TECHNOLOGY CORPORATION

Cyrin Cyber Range

The CYRIN cyber training platform provides effective training for college and university engineering trainees, network engineers, and corporate cyber defenders. CYRIN can ready any cyber defense team to repel cyber threats with CYRIN's virtual machine and agent driven environment, realistic attacks, and cyber war gaming individual or team exercises with accurate training results.

The Problem

- Labs within the CYRIN cyber range need necessary updates that can have unintended effects on other portions of the lab.

- Due to the nature of virtual machines being embedded inside a web environment, automated web testing is not a plausible solution.

- There needs to be a robust way to automatically test all possible CYRIN labs and interact with the virtual machine.
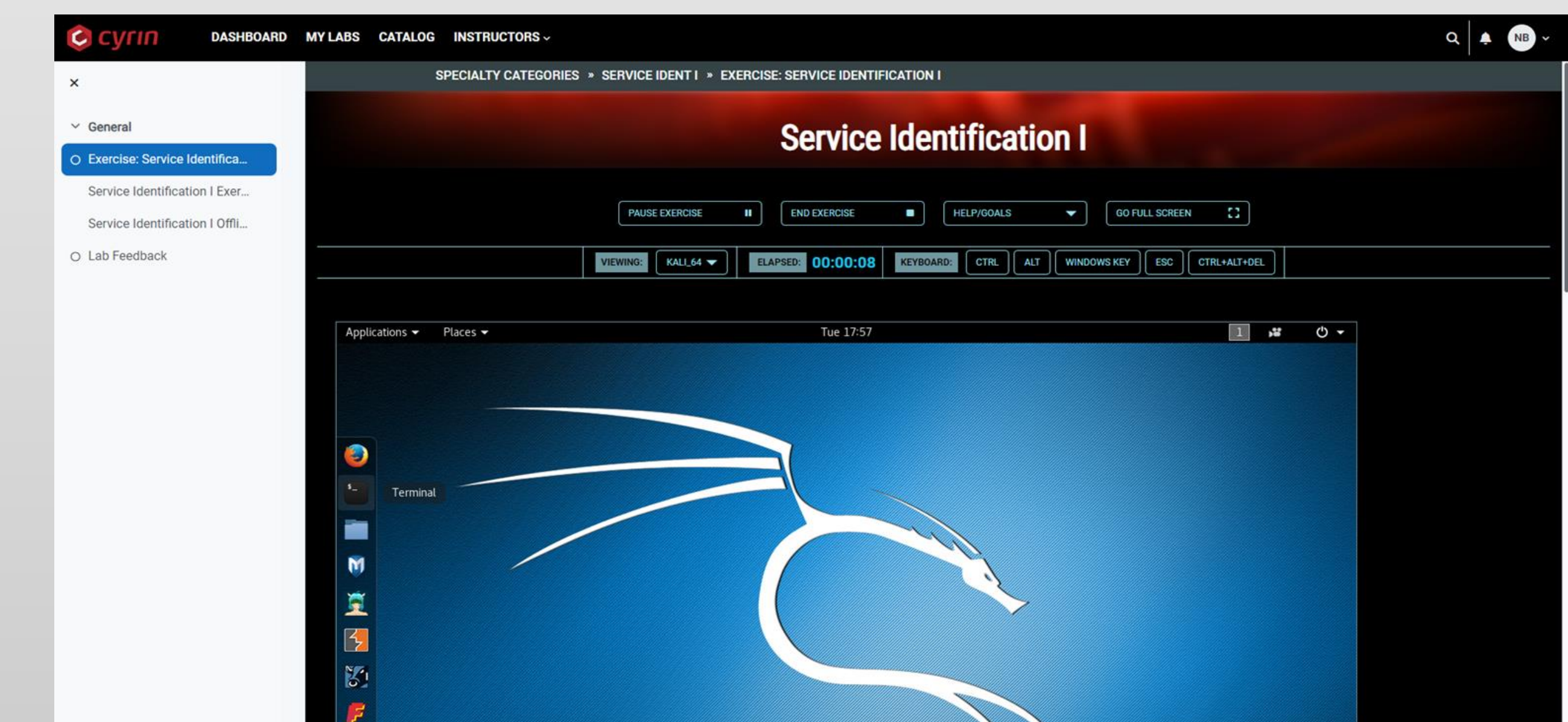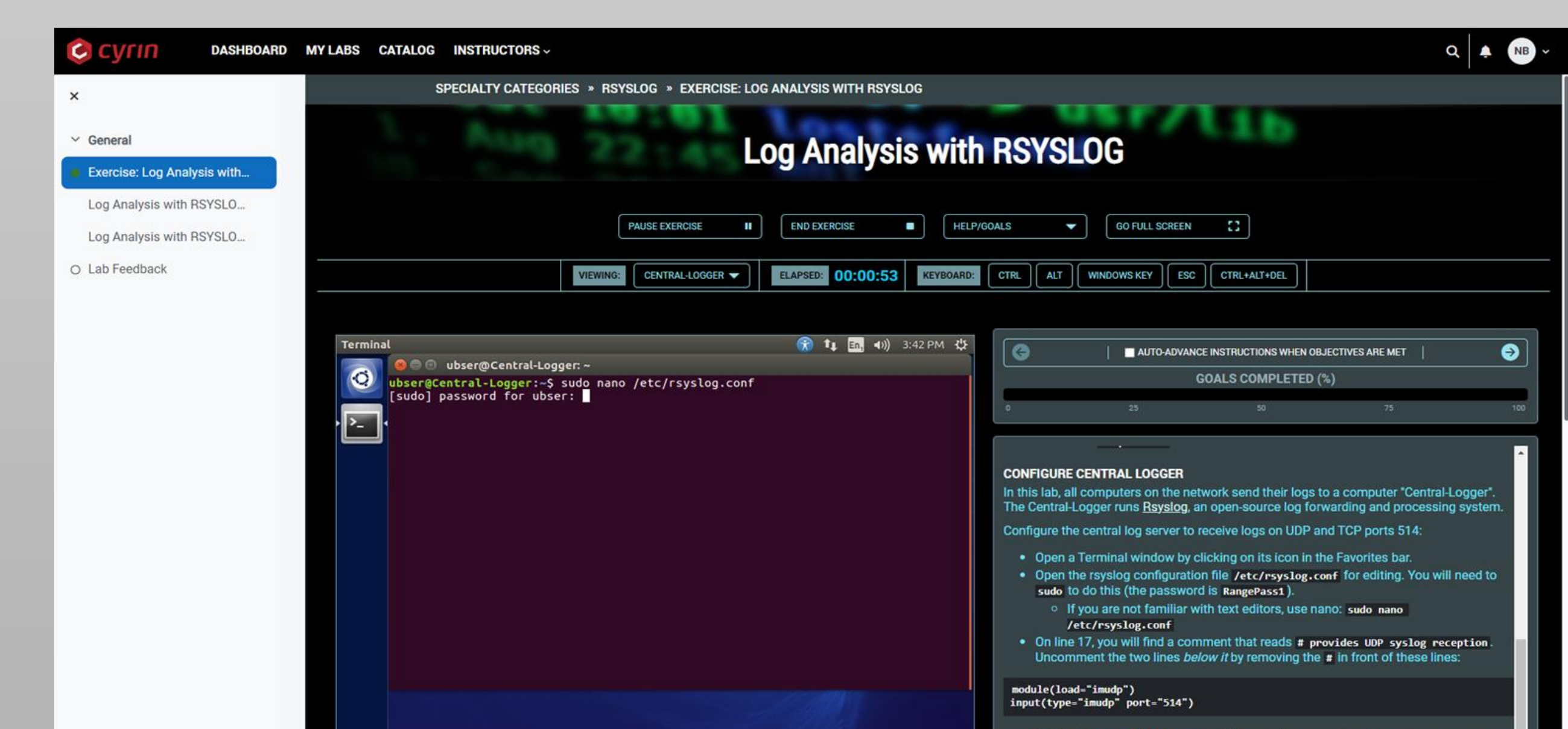
Practical Workflow

Engineer

Record Selenium Script

test_lab1.py

Input test_lab.py

make_enhanced.py

Done in memory

enhanced.py

Record Keyboard & Mouse Input

test_1.py

The Solution

The main product of the work done is the make_enhanced.py script. Which records user inputs for each lab and can replay them later for testing.

Action 1

Action 2

Action 3