Active Directory Auditing for Cybersecurity Maturity Model Certification (CMMC) Compliance

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Alpha 4

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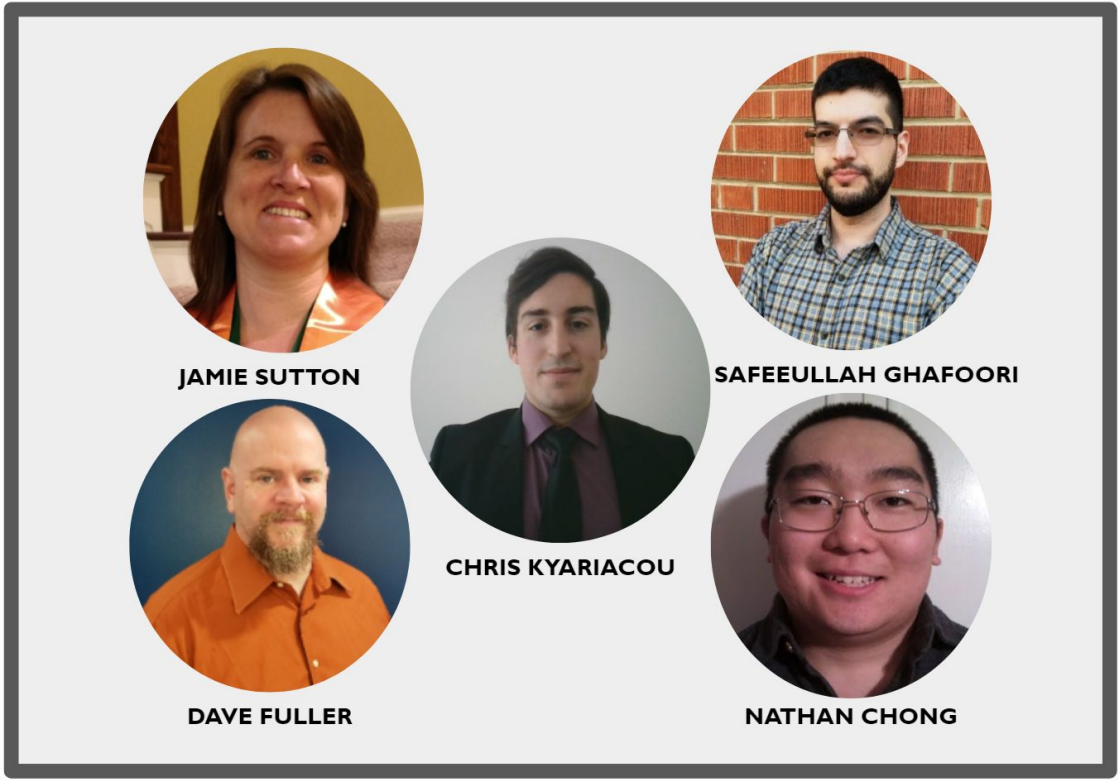


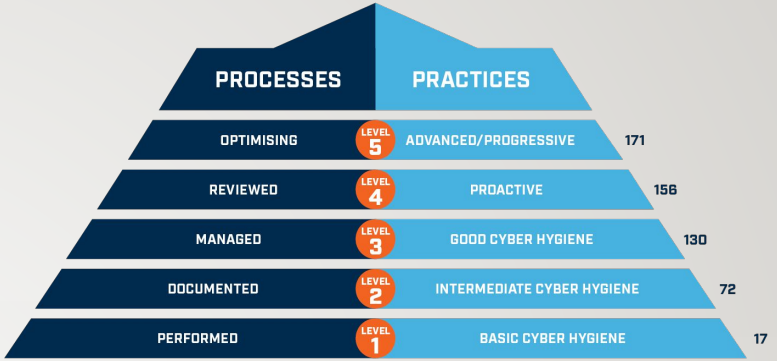
CMMC Compliance

Cybersecurity Maturity Model Compliance

Primary Goal: Safeguard controlled unclassified information (CUI) across the DoD supply chain.

CUI: Any information or data created or possessed by the government or another entity on the government's behalf.

CMMC Compliance Levels



Level 1: Addressing FAR 52.204-21 cybersecurity principles.

Level 2: Build on CMMC Level 1 and addresses a little over half on NIST 800-171 controls.

Level 3: Build on CMMC Level 2 and addresses all NIST 800-171 controls.

Level 4 & 5: Build off CMMC Level 3 and include controls from a range of frameworks:

- CERT RMM v1.2
- NIST SP 800-53
- NIST SP 800-172
- ISO 27002
- CIS CSC 7.1
- Unattributed "CMMC" references that are not attributed to existing frameworks.

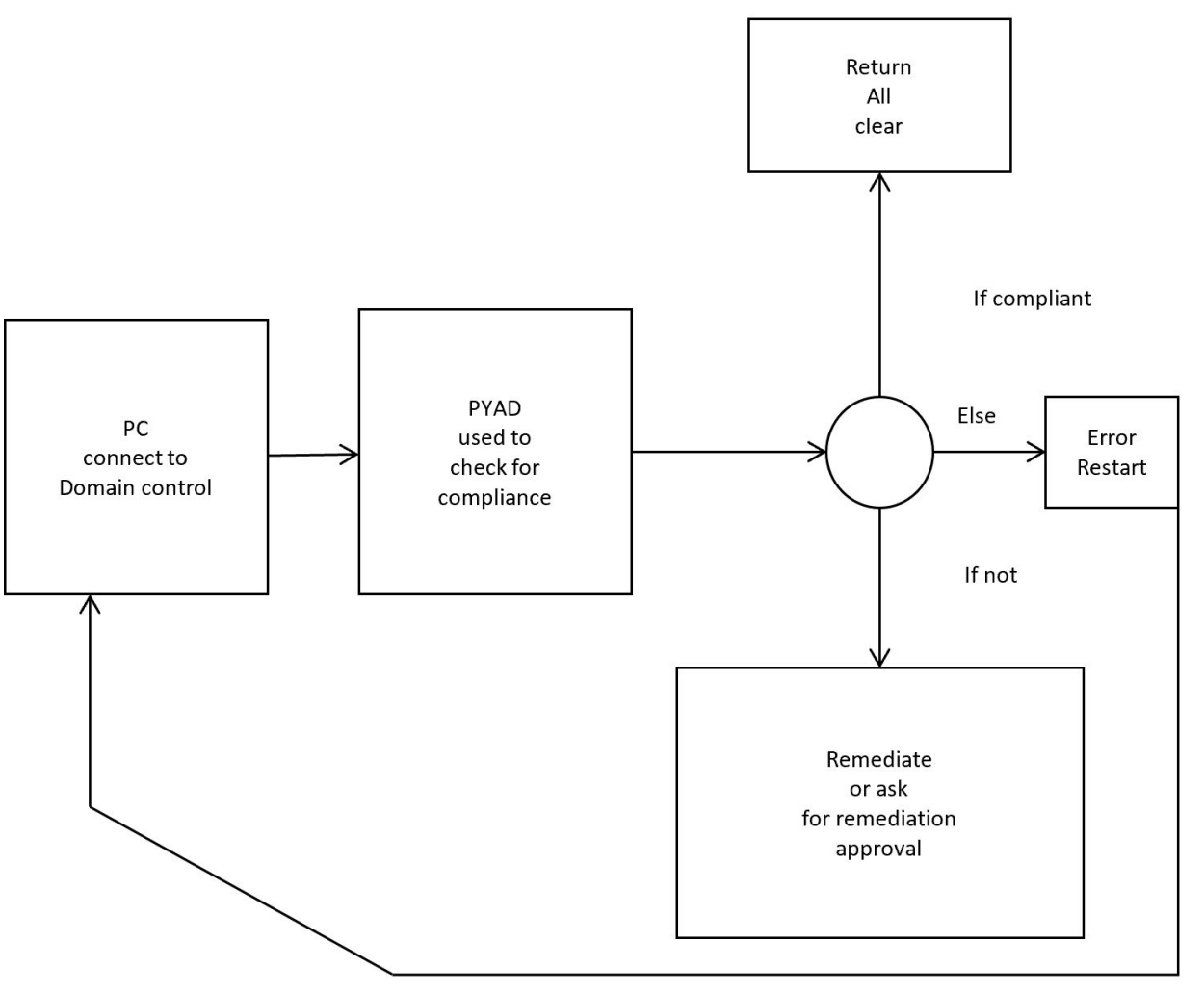
Auditing Active Directory for CMMC Level 3

Main Objective: Create an auditing system that can audit AD servers to ensure CMMC Level 3 Compliance.

- **Must be open source and not rely on proprietary software**
- **Must be automatable (Using Ansible, etc.)**
- **Must be reliable & efficient**
- **Must be easily maintained**
- **Must be scalable (To include other functions in the future for Level 4 & 5)**

Desired Result

- pyad 0.6.0 to query for info
- Info passed to check if Remediation is necessary
- Take appropriate action based on findings or issues that occurred

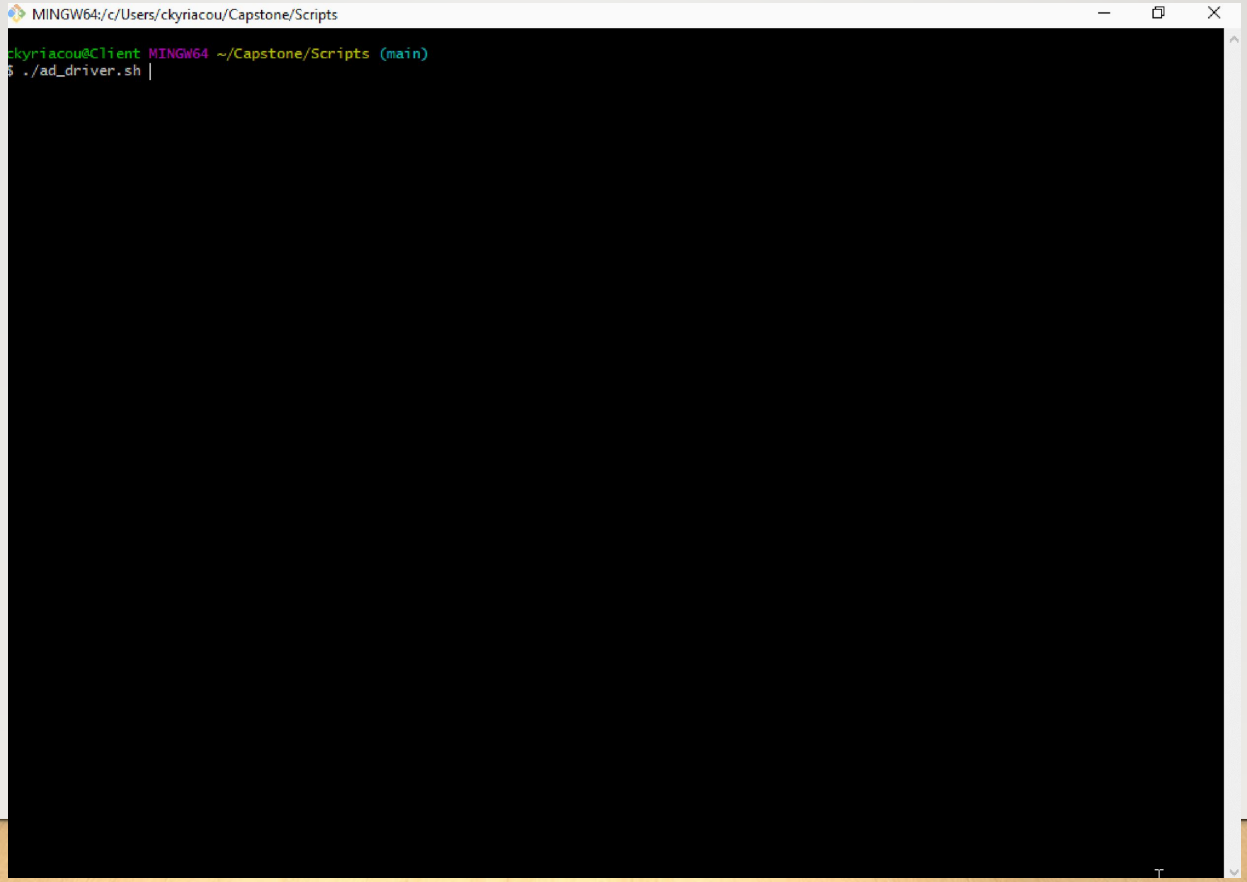


Current Prototype

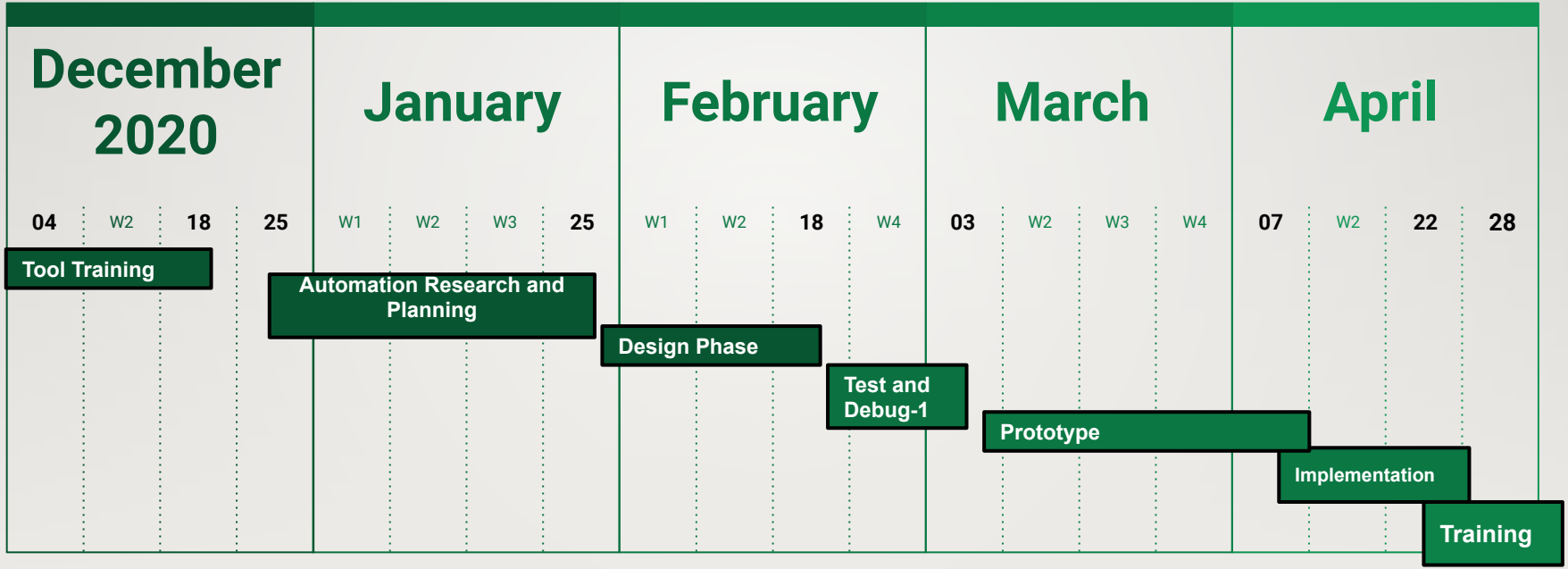
Prototype 1 - (Client/Server communication w/ Python)

Windows_10_VM
Requests
Audit Info

Active Directory Server
VM
Replies with
Information



IT-493 Spring 2021 Project Schedule



Questions?