

FOSTER

Master of
Professional Accounting



CASES IN CYBERSECURITY

Advanced Cases in Assurance Services (ACCTG 521)

Class 13 | MPAcc class of 2025



Agenda

Review

Overview

Deliverable

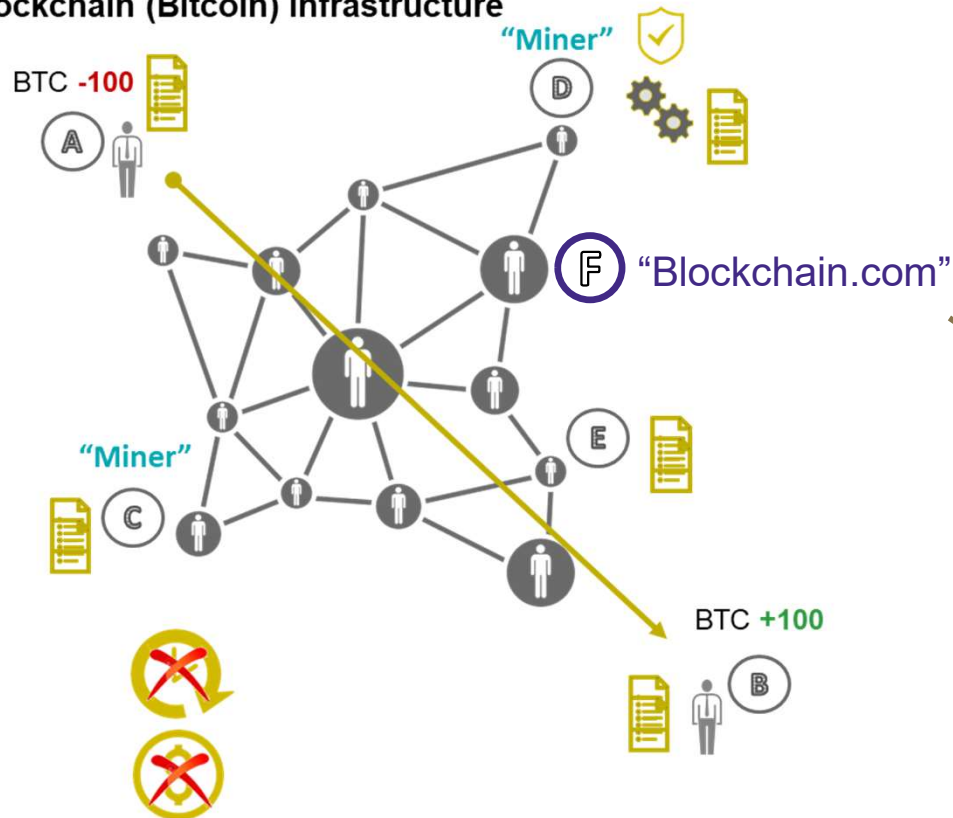
Lab:

- Liberty Systems Cybersecurity Case

Review

Rather than relying on a central entity to verify transactions, blockchains are managed and secured autonomously by a peer-to-peer network.

Blockchain (Bitcoin) Infrastructure



Bitcoin



Auditor

Client Data

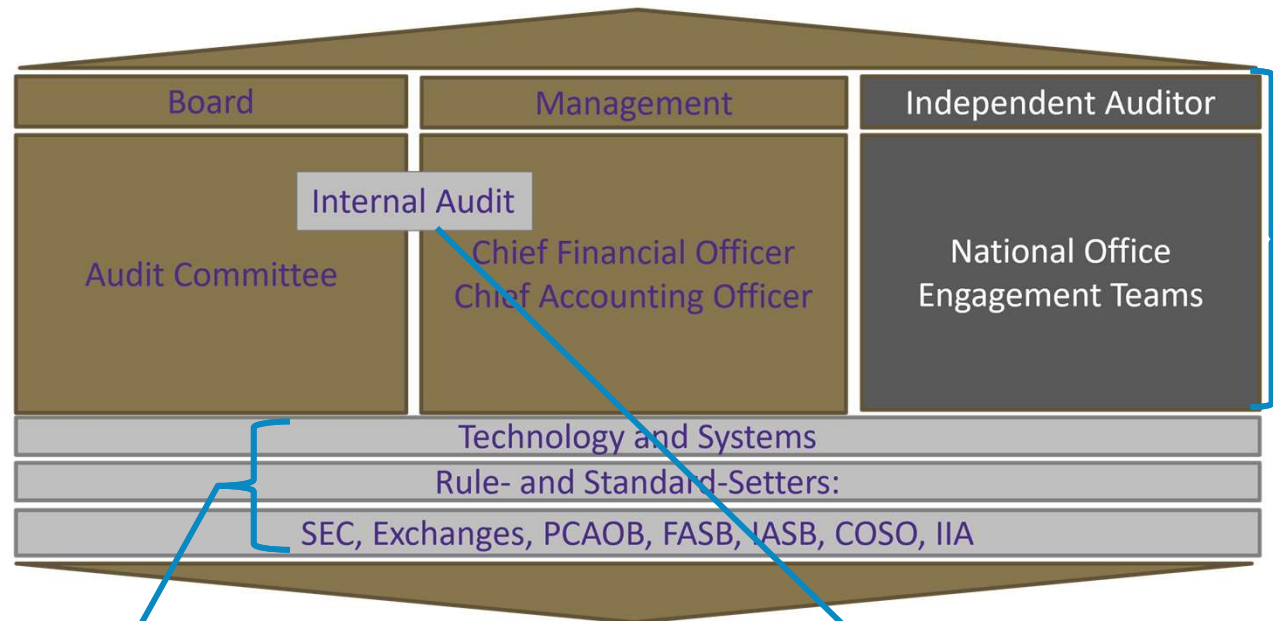


Wallet data
Transaction data
Access verification data

Wallet Address	Client Data	Balance
17A16QmavnUfCW11DAApiJxp7ARnxN		7089.47
3NrTf9Q2amgZLKESJzvCF5enRdjwQNM		1000.00
14sgx62AxDabRL01njV7GcJmviyeYkF		76.10
1Mi6TRMTp1ekRrDSzC1pK8its3MTaW		71.90
1E3gegL9E4rtzKjIDJQiyPv8EjUvJit		69.00
1GzgDCeDyeb4sKQZJZu5rUjAcgRvBBJ		10.00
1Po1oWkD2LmodfBYiAktwh76vkF93L		6.98
1PJBdra3iXhkVfrGbEoL9vkdR3EiZL		4.56
1GSbS2PP9dP1EDQWTQ7oToUtnXgVrmb		4.14
3A7mhGNIPUFWKEN3k6Ko5pXaF73sVmW		1.02
35qEsvAihafUu4nyBmC9rPodEK2YR1Y		0.47
1Hc8huWuaz5FzKYpx8ucUbERpDEG1s1		0.00

- Reconcile a blockexplorer's data with client records.

Effective Financial Reporting Governance



Helix Analyzer
Simulation
Blockchain Audit

Sound Financial Reporting

Systems/controls: Pcard;
Alteryx suspicious transactions.

Early Classes on Economics of Audit, Systems: Transaction Analyses (incl: 522)

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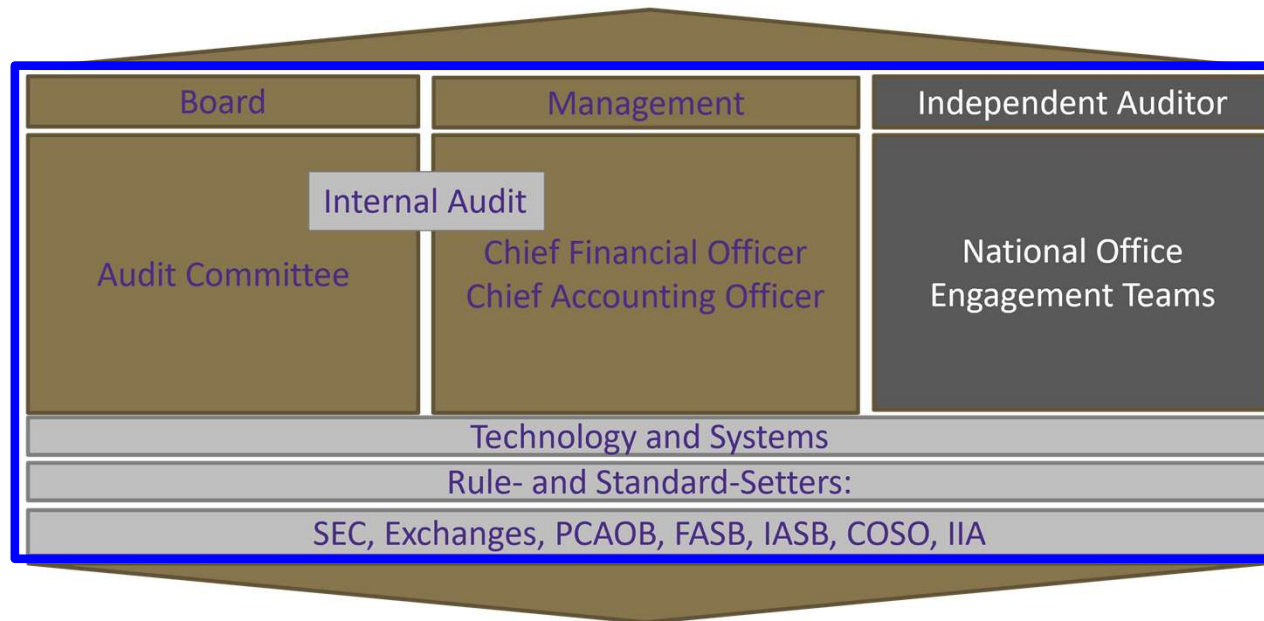
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Effective Financial Reporting Governance

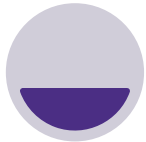
Cybersecurity



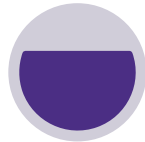
Sound Financial Reporting

Management

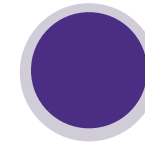
Audit



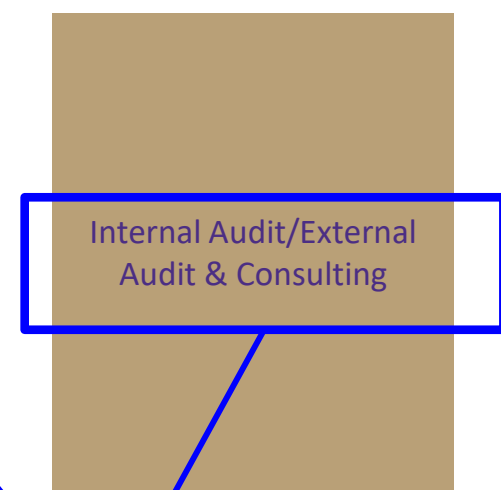
First Line of Defense



Second Line of Defense



Third Line of Defense



Information Technology General Controls
ITGC : ***Testing and Compliance issues***

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Deliverable

A 1-page memo with screenshot of your final Alteryx workflow

The memo should answer the following (based on Q7 and Q8 of the case):

1. Based on your analysis, what do you believe should be the next steps for the external audit?
2. What other concerns do you have from reviewing the data? List at least three concerns you have and explain why you are concerned.

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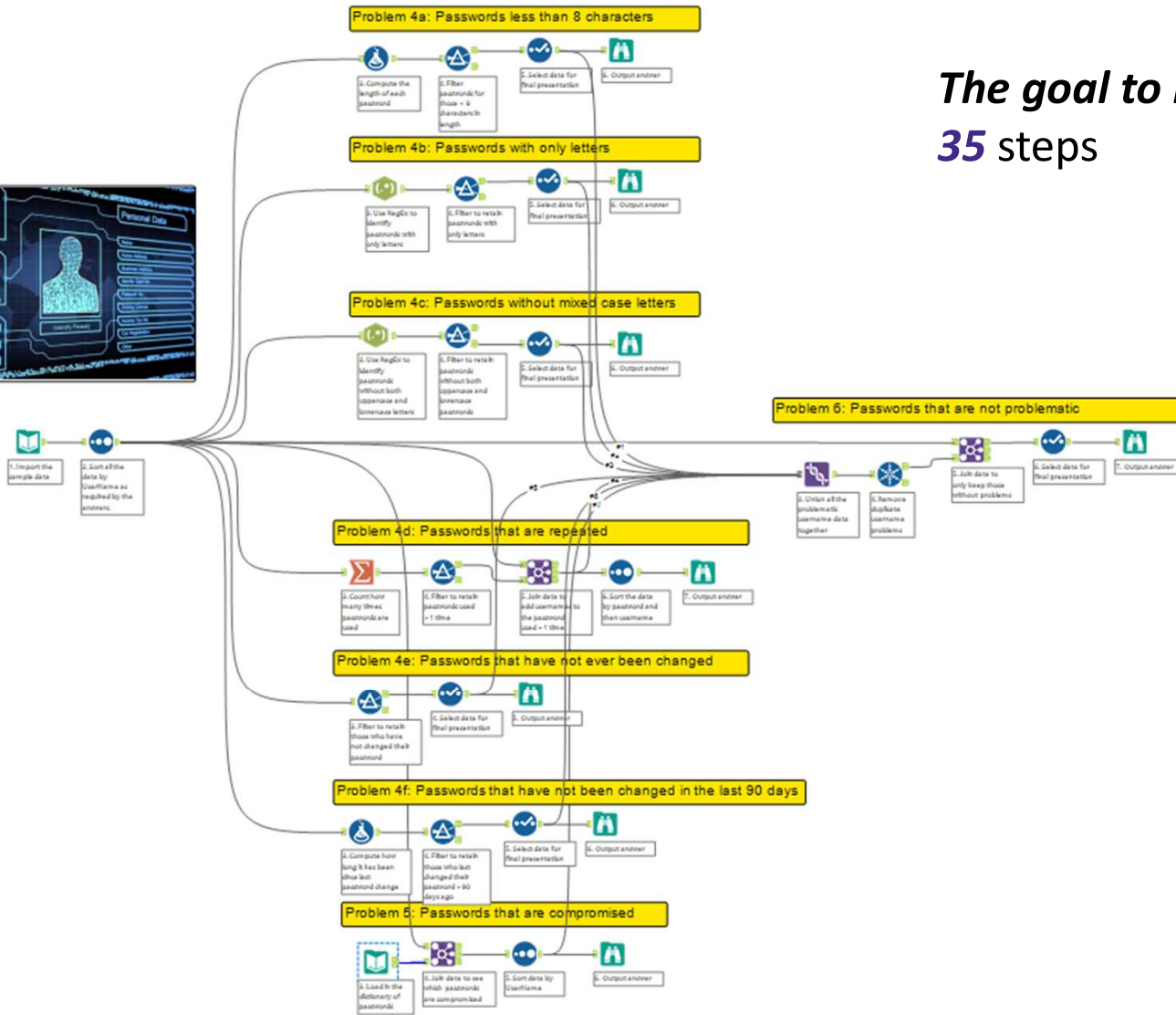
Lab:

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The Challenge

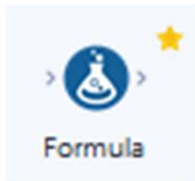
Limited time; need to make an efficient/effective workflow.

The Challenge: Do better than the following screenshot by using **fewer steps**.

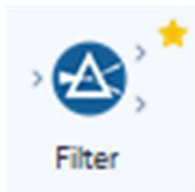


The goal to beat:
35 steps

Tool Suggestions



Formula tool can accommodate many expressions, including RegEx, and output data in many formats (e.g., Boolean).



Filter tool can accommodate many custom conditions using **AND**, with Boolean = 1 = True.

RegEx Help

RegEx that *matches* the following plain English:

- Only lowercase letters:
 - “[a-z]*”
- Upper and lowercase letters:
 - “.*[a-z].*[A-Z].* | .*[A-Z].*[a-z].*”
- The “|” pipe delimiter is an “OR” operator.

Final Hints

Combine steps into Formula and filter tools, use boolean (or False=0/True=1) to simplify the filter conditions.

Final output is Passwords that are NOT problematic, you will find (only) **6** meet the criteria.

Thank you!

