# Proposal:

## *Exception Prioritization by Utilizing Data Visualization*

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# INTRODUCTION

- Firms deal with huge amounts of data, and the use of advanced analytics on a daily continuous basis is necessary to detect, and possibly prevent fraud

- However, despite the use of such advanced techniques, large amount of exceptions are generated causing further investigation to be costly

- These scenarios raise the question of how users can organize and make sense of the such voluminous data

# INTRODUCTION

- I propose to utilize <span style="color:red">data visualization</span> techniques/tools in order to visualize detected exceptions, and ultimately help auditors <span style="color:red">gain insight</span> and be able to <span style="color:red">pin point</span> the more suspicious, and potentially fraudulent cases

# METHODOLOGY

- For example, let the sets and objects be as follows:

        SETS:                      OBJECTS:

- User Profiling       = {ID101, ID102, ID103, ID104)
- Clustering          = {ID103, ID106, ID107}
- Expert System     = {ID103, ID105}

- Sets are the different analytic tests being conducted
- Objects are the distinct records/transactions that are flagged based on the audit analytic tests

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# METHODOLOGY

Most suspicious exception (ID103)
(Potential fraudulent case)

Expert
System
{ID103, ID105}

User Profiling
{ID101, ID102, ID103, ID104}

Clustering
{ID103, ID106, ID107}
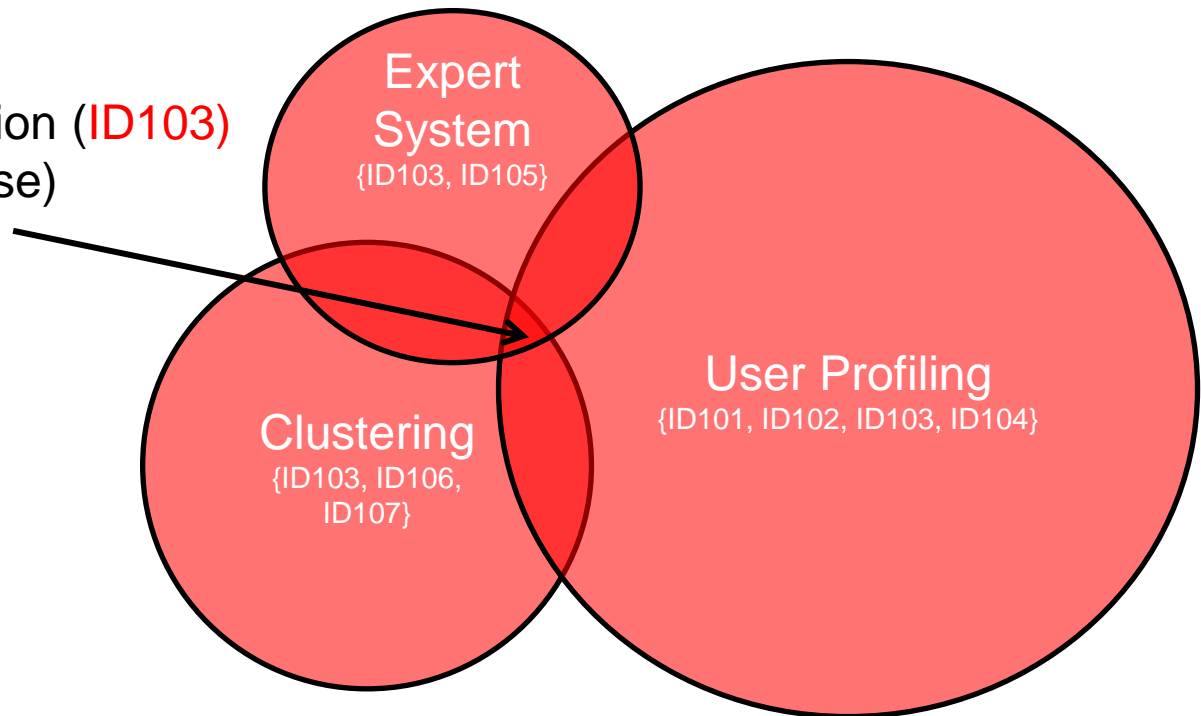
- In the case of our three sets, the intersection is record = {ID103}, hence this transaction will get more weight and will be ranked higher than the others

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# CONCLUSION

- The proposal is still a work in process

- I will attempt to utilize data visualization techniques in order to help identify the more suspicious exceptions

- I will also utilize different criteria, such as frequency and amounts for better identification