THE DEPARTMENT OF
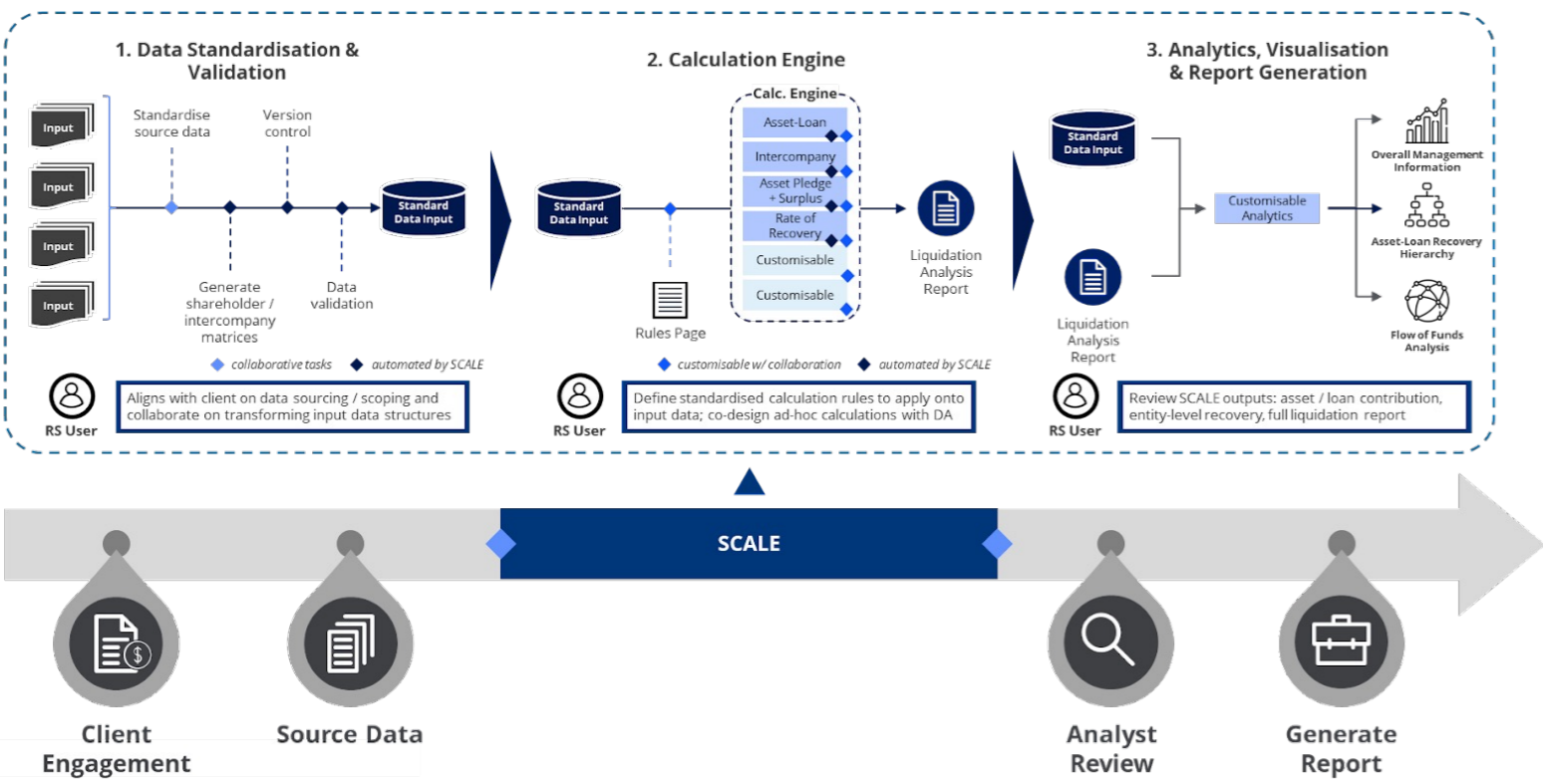**COMPUTER SCIENCE & ENGINEERING**
計算機科學及工程學系

SCALE
Smart Calculation and Analytics Liquidation Engine

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Introduction

The problems of the Excel-based Liquidation Analysis model in Deloitte were identified as follows:
1. Large Volume of Data, 2. Large Manual Effort, 3. Difficult to modify & inconsistency, 4. Difficult to visualize.

As such, our Financial Advisory Team proposed streamlining the Liquidation Analysis process by building a single platform for RS users (Restructuring Team), which accommodates all calculations and analytics required for an end-to-end project. Thereby, SCALE is developed to facilitate liquidation analysis and generate the necessary analytics to support the RS team's discussions with their relevant creditors.

Objectives

- Develop an application that allows users conduct liquidation analysis and generate insights from financial data
- To build a database for AL (Asset & Loan) information and financial network
- Visualise hierarchy tree from shareholding information
- Provide meaningful and user-friendly interface to users

Design & Implementation

Hierarchy Tree Module:
To provide comprehensive overview of the shareholding structure, allowing for customization and interactivity. The module should incorporate the required color coding and tagging functionalities, enabling users to adjust nodes, filter companies, and save different versions of the shareholding map.
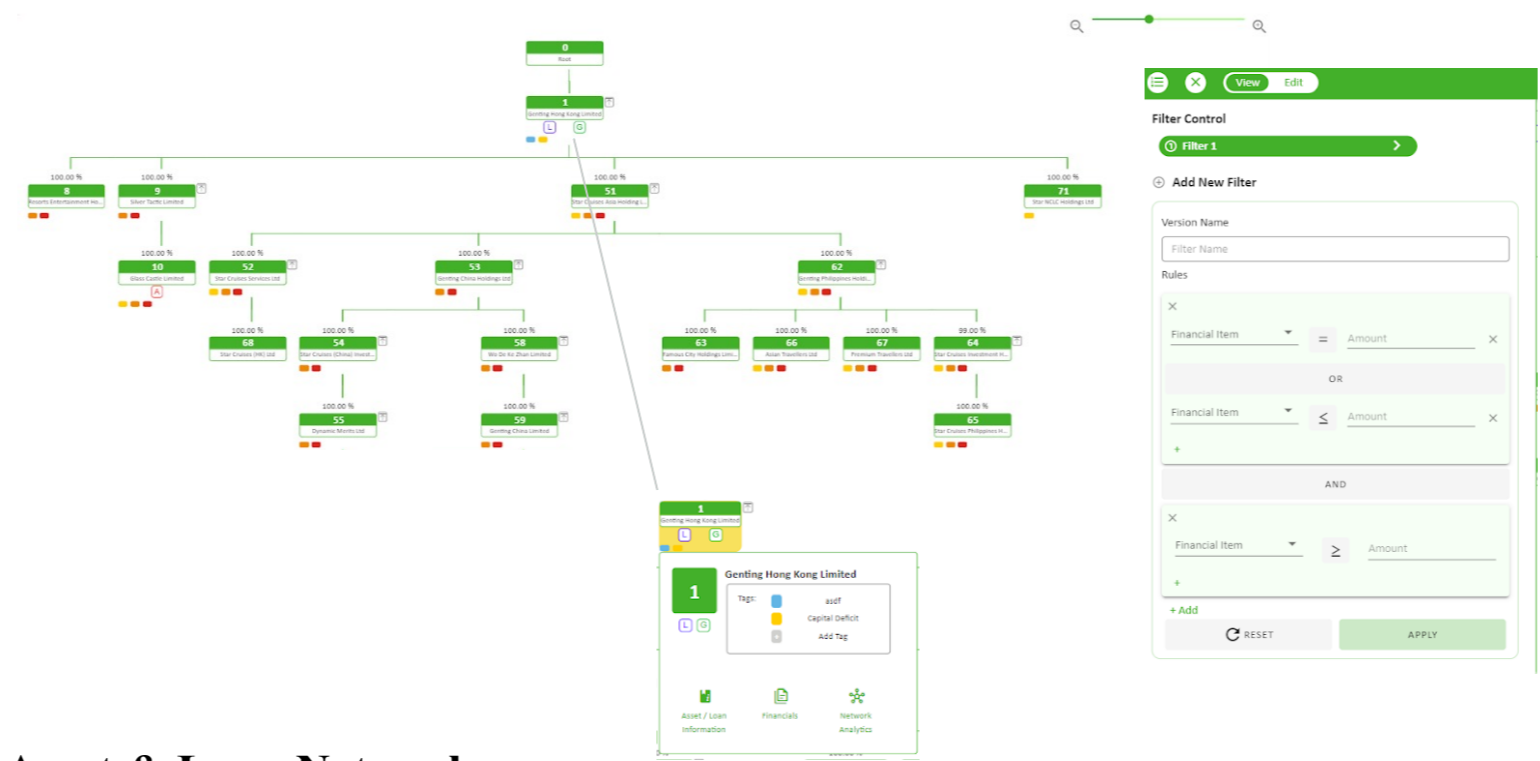
Asset & Loan Network:
For a chosen company, the network is displayed with information of company's related assets, loans, guarantors of the associated loan and guarantees of associated company.
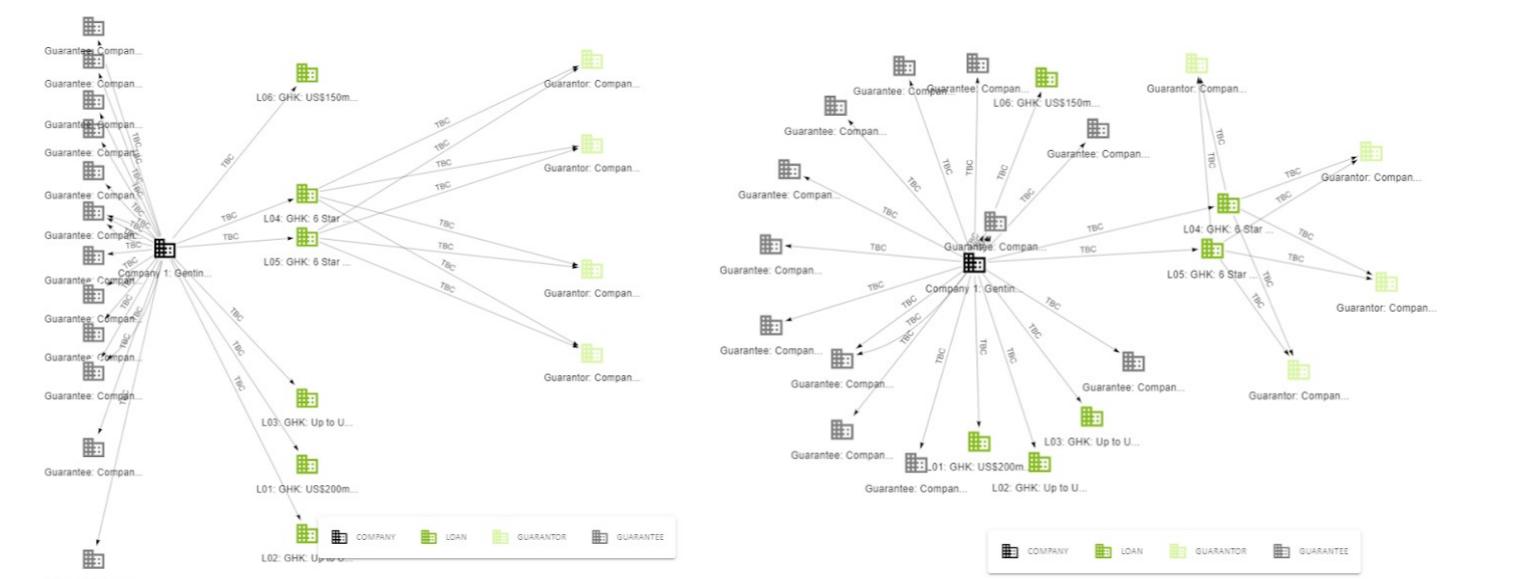
Report Generation and Insights
Once the liquidation analysis is complete, the calculated values for each line item, are displayed. The user has the option to review either
1. Comprehensive overview of the liquidation analysis, presenting a summary of the financial outcomes and key metrics derived from the process
2. Recovery rate of each individual loan. User may further delve into analysis of prioritization of actions and the allocation of resources.

Conclusion

In this project we have successfully built an interactive and informative application that could help users to visualise relevant graphs and insights from financial data. Although there are rooms for improvements, we are satisfied to have produced a working prototype. An integration with AI tool or model may be useful in future to tackle the category-matching tasks for RS team.