

ACCT414 (SMU-X)

# ACCOUNTING ANALYTICS CAPSTONE

## PONTIAC LAND



**ABOUT**  
Pontiac Land is a private-held property developer, owner, and operator based in Singapore. The firm has a hospitality arm consisting 7 hotels across 3 countries, managed by 3 different operators.

**BUSINESS PROBLEM**  
Due to the various reporting formats from the different operators, Pontiac’s hotel team has to consolidate and report monthly reporting figures and KPIs to management. With regards to reporting, the team currently face two key challenges: 1) Time Effectiveness; 2) Visibility & Interaction

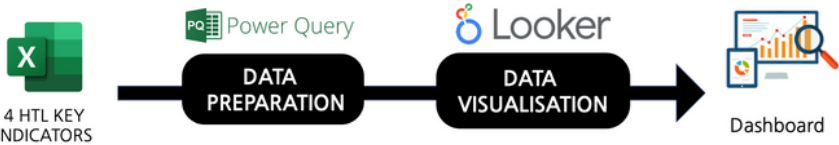
**PROJECT STATEMENT**  
Our group aims to improve the timeliness and readability of the Pontiac team’s monthly reporting of its consolidated Singapore-based hotel figures, using data preparation and visualisation softwares to automate the process.

## PROBLEM STATEMENTS

With regards to reporting, the team currently face two key challenges:

- Productivity**
  - Client currently presents data by screenshotting the excel tables into a PowerPoint presentation.
- Visibility and Interaction**
  - By reading the excel data alone, it is difficult to visualise large amounts of numbers to interpret large datasets for useful insights.

## OUR APPROACH



- Data Preparation of 4 HTLS KEY INDICATORS for Dashboarding.
- Creation of Dashboards for Monthly Reporting.
- Exploration of Additional Insights for Analysis (i.e. Other KPIs).

## CHALLENGES FACED

- PowerQuery takes a significant time to generate the cleaned data.
- PowerQuery requires basic coding knowledge to improve efficiencies in data cleaning.
- Google Looker Studio takes a significant time to load, especially when multiple users are working on the sheet concurrently.
- Google Looker Studio has various limitations in terms of functionality.
- Google Looker Studio does not provide sufficient information for troubleshooting when errors occur.

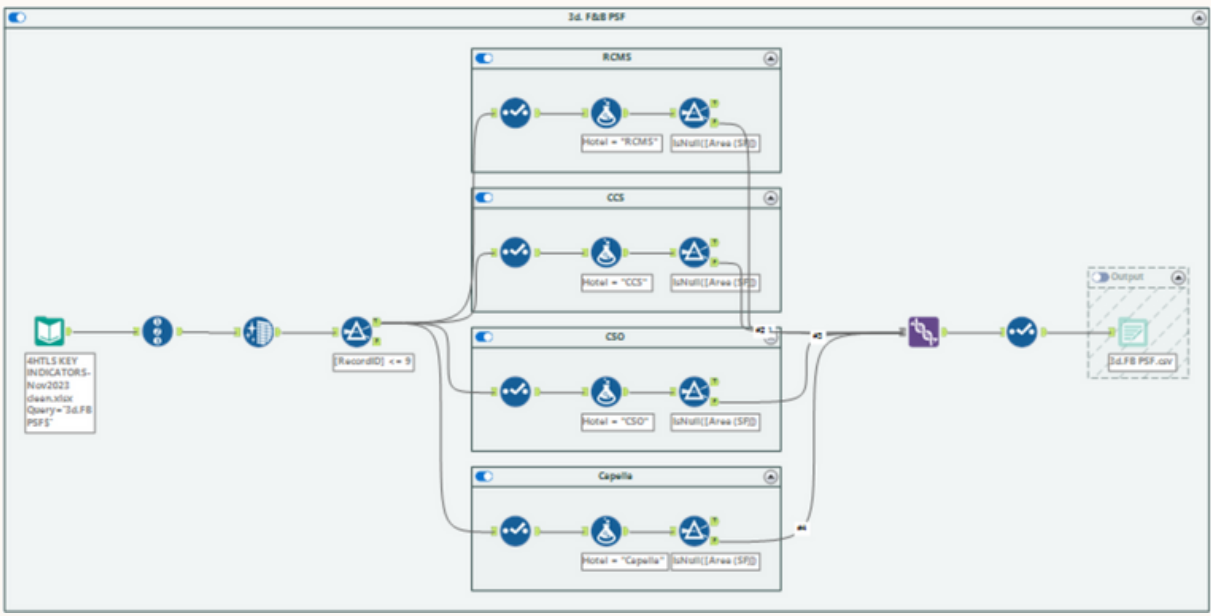
## MOVING FORWARD

- Re-run the whole data cleaning and visualisation process using a new set of data from another FY to point out steps and changes that the client needs to take note of.
- Provide them advice on what we identified may be issues.
  - (e.g. their naming of the columns to be standardised)

## APPRECIATION

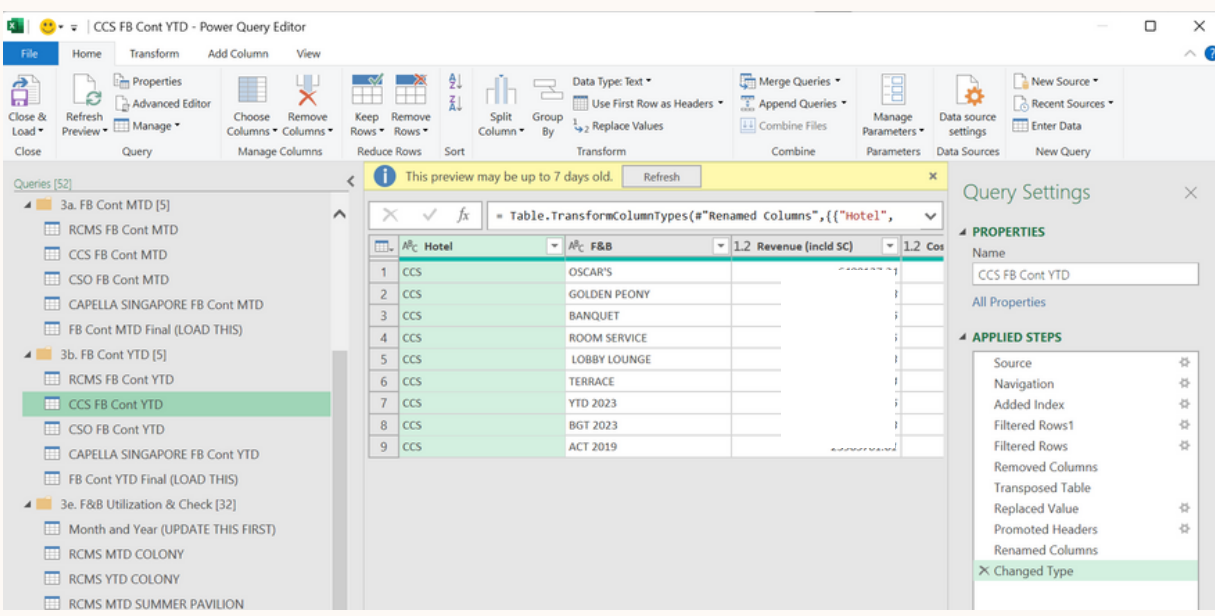
The joint struggles we faced helped to open up new perspectives and Prof Benjamin Lee and Prof Clarence Goh introduced us to the necessary tools for analysing figures, and have undoubtedly served as valuable learning points for each of our future career journey.

## Alteryx <----- DATA CLEANING -----> Power Query

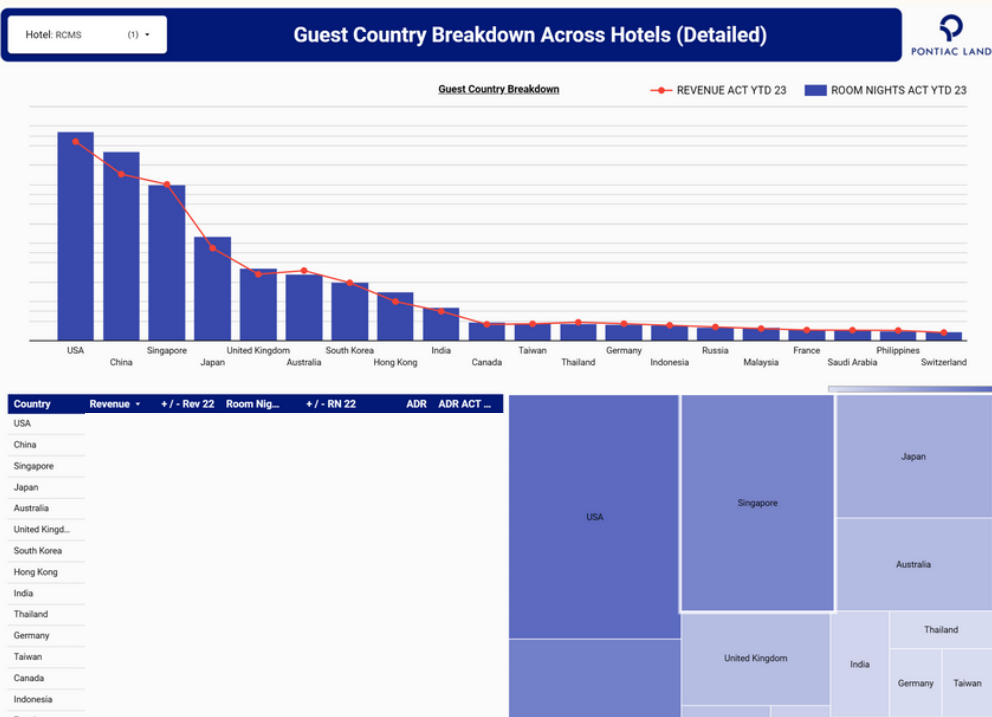
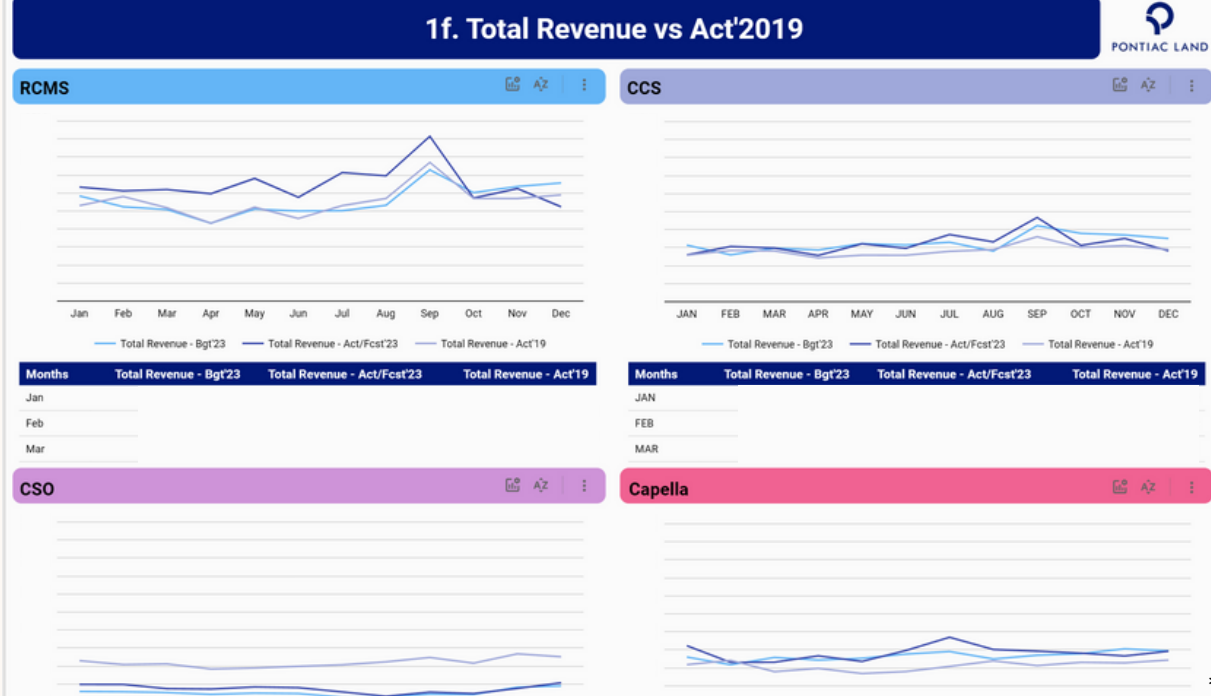
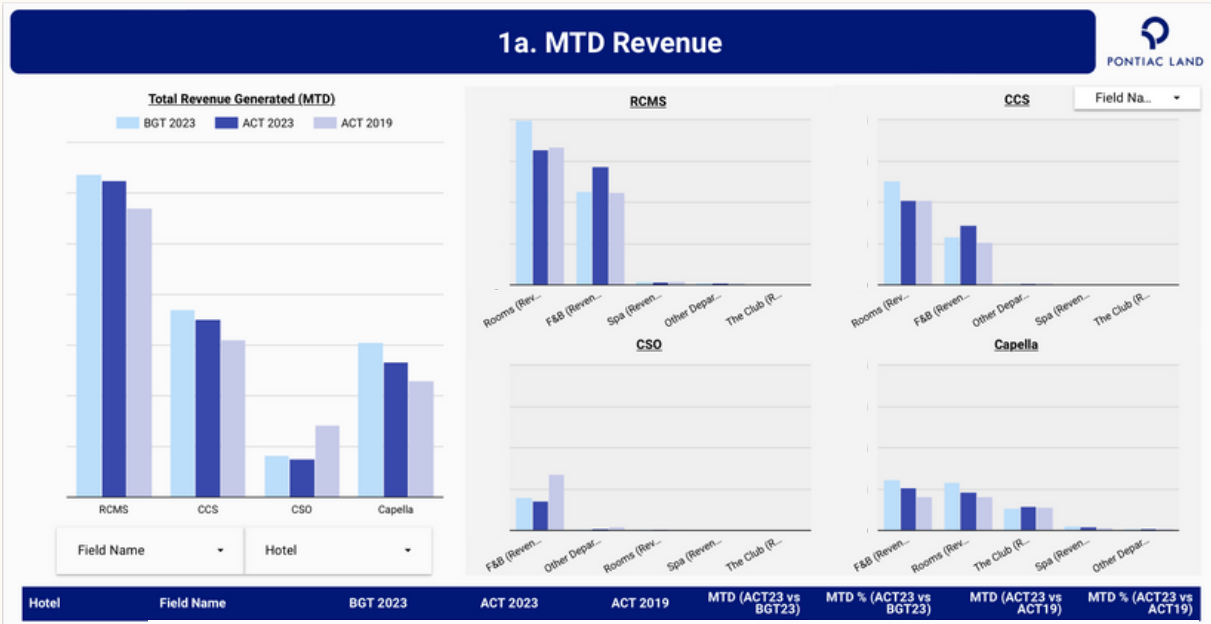


### FOCUS APPROACH

- Ensure Data Cleaning is dynamic
- Sustainable for long term use (without change in data structure)
- Ease of Adoption



## DATA VISUALISATION



### FOCUS APPROACH

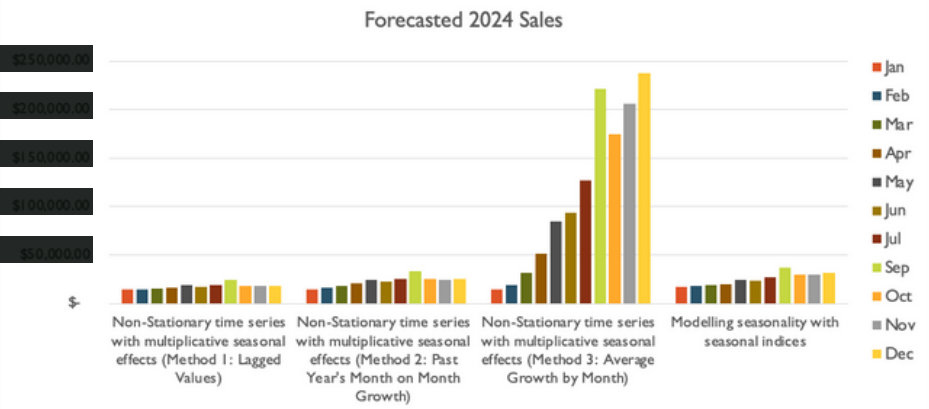
- Ease of readability
- Smooth transition for management to switch (minimal adaptation)
- Inclusive of both overview (summary) and specific (detailed) numeric data for different perspectives
- Allow comparability across different hotels

\*Data presented in this poster are fictitious and does not represent any real events

## ADDITIONAL INSIGHTS

### RCMS's Time Series Analysis (Sales Forecast)

Methods	MAPE (Monthly)	MAPE (Quarterly)
Stationary time series with additive seasonal effects	%	%
Stationary time series with multiplicative seasonal effects	%	%
Non-Stationary time series with additive seasonal effects	%	%
Non-Stationary time series with multiplicative seasonal effects	%	%
Linear Trend Model	%	%
Quadratic Trend Model	%	%
Modelling seasonality with seasonal indices	%	%
Modelling seasonality with dummy variables	%	%



Time Series Plot	Stationary Additive	Stationary Multiplicative
Linear Trend	Non-Stationary	Non-Stationary
Quadratic Trend	Seasonal Indices	Dummy

Forecasted 2024 Sales	Non-Stationary time series with multiplicative seasonal effects (Method 1: Lagged Values)	Non-Stationary time series with multiplicative seasonal effects (Method 2: Past Year's Month on Month Growth)	Non-Stationary time series with multiplicative seasonal effects (Method 3: Average Growth by Month)	Modelling seasonality with seasonal indices
Jan	\$	\$	\$	\$
Feb	\$	\$	\$	\$
Mar	\$	\$	\$	\$
Apr	\$	\$	\$	\$
May	\$	\$	\$	\$
Jun	\$	\$	\$	\$
Jul	\$	\$	\$	\$
Aug	\$	\$	\$	\$
Sep	\$	\$	\$	\$
Oct	\$	\$	\$	\$
Nov	\$	\$	\$	\$
Dec	\$	\$	\$	\$

## OUR MEMBERS:



Chew Jun Qian



Fabian Seem



Ivan Seow



Quek Wei Jie



Tay Hui Ping



Trevor Tan