UNIVERSITI TEKNOLOGI MALAYSIA

INTERNSHIP PRESENTATION

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Innovating Solutions

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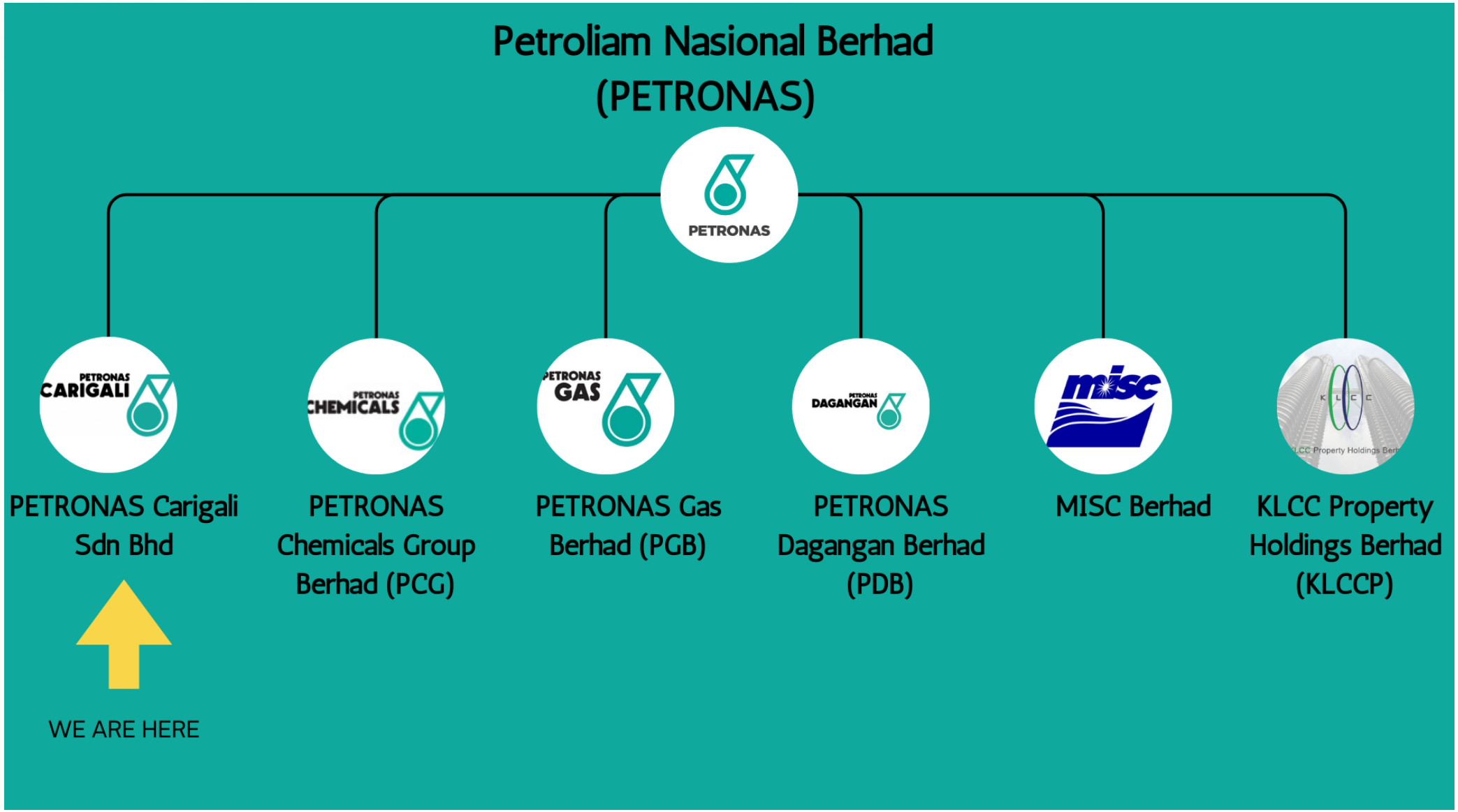
KNOW ABOUT PETRONAS



Company Background

Company Overview:

- **Organization:** Petroliam Nasional Berhad (PETRONAS)
- **Subsidiary:** PETRONAS Carigali Sdn Bhd (PCSB)
- **Type:** National Oil & Gas Company, Malaysia
- **Headquarters:** Kuala Lumpur, Malaysia
- **Primary Location of Training:** Peninsular Malaysia Assets (PMA), Kerteh, Terengganu

Vision:

- Establish PETRONAS as a leading global provider of energy solutions with a commitment to sustainable development.

Mission:

- Drive the delivery of energy solutions responsibly, balancing operational excellence with environmental and social responsibility

Statement of
PURPOSE

A progressive energy and solutions partner enriching lives for a sustainable future

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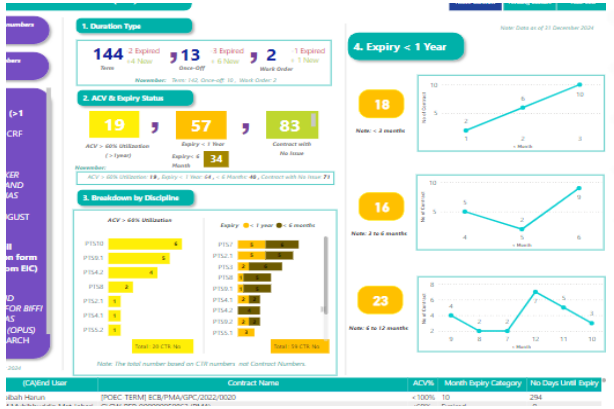
INTERNSHIP TASK

Internship Task: Active Contract Management

Objective:

To effectively manage and monitor active contracts that have not yet expired, identify potential issues, and ensure seamless execution of projects.



Key Responsibilities:

1.Data Collaboration and Filtering:

- Collaborate with the GP team to obtain raw contract data.
- Filter the data to focus specifically on the PTS section, which includes 10 sections within PETRONAS Carigali.
- Clean and consolidate the filtered data into a single master contract list.

2.Data Analysis and Visualization:

- Use Power BI to analyze the master contract list and derive insights, including contract value and status.

  Ensure the data is presented in an organized and actionable format for decision-making.

3.Issue Resolution:

- Follow up with assigned personnel or engineers responsible for problematic contracts to ensure timely and efficient resolution of issues.

4.Documentation and Updates:

1. Regularly update the contract list in Excel on a monthly basis.
2. Transform the updated data into Power BI for ongoing analysis and reporting.

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INTERNSHIP TASK

Internship Task: BOM Tagging Management

Objective:

To tag material items and determine their current usage status based on PMMS remarks and the POST AIR 2024 list.

Key Responsibilities:

1.Material Identification and Status Mapping:

- Review a total of 857line items requiring BOM tagging.
- Close out all line items by identifying their status and mapping them against the AIR 2024 list and PMMS remarks.

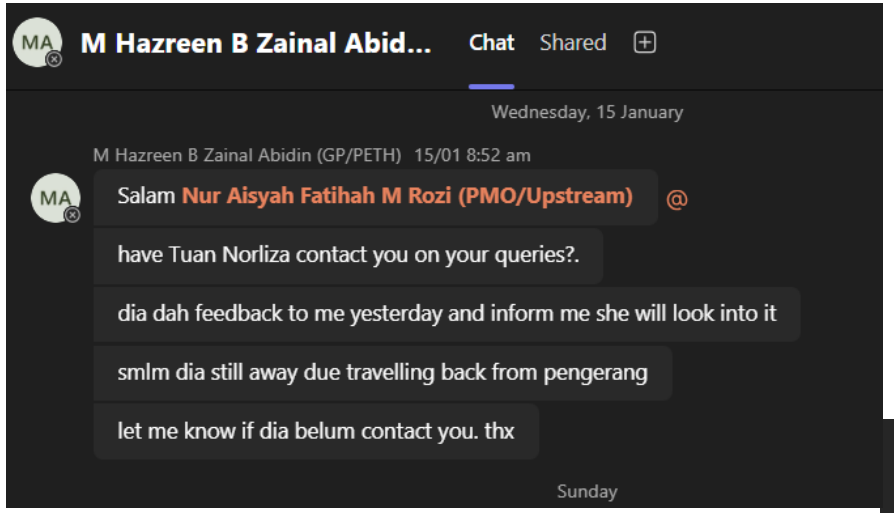
2.Stakeholder Communication:

- Engage and communicate effectively with focal section across various organizational levels, including management and operational teams, to confirm material statuses.

3.Collaboration for Resolution:

- Address materials marked with "blocked" or "partially blocked" statuses by collaborating with the GP and PMMS teams to resolve issues and facilitate tagging process.

Discipline	Material With No BOM Tagging	Completed Tagging	To be deleted
PTS7 : MECHANICAL ROTATING	302	138	169
PTS2 : MECHANICAL STATIC & P	73	58	15
OPERATION/OTHER/CMPE	385	314	66
PTS4 : MEASUREMENT & INSTR	50	13	37
PTS3 : ELECTRICAL	47	39	8
GRAND TOTAL	857	562	295



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INTERNSHIP TASK

Internship Task: Non-Stock Material Management 2024

Objective:

To identify and manage the 2024 non-stock material list by determining their status (surplus, ongoing, scrapped, or to be disposed of) for effective tracking and decision-making.

Key Responsibilities:

1.Masterlist Compilation:

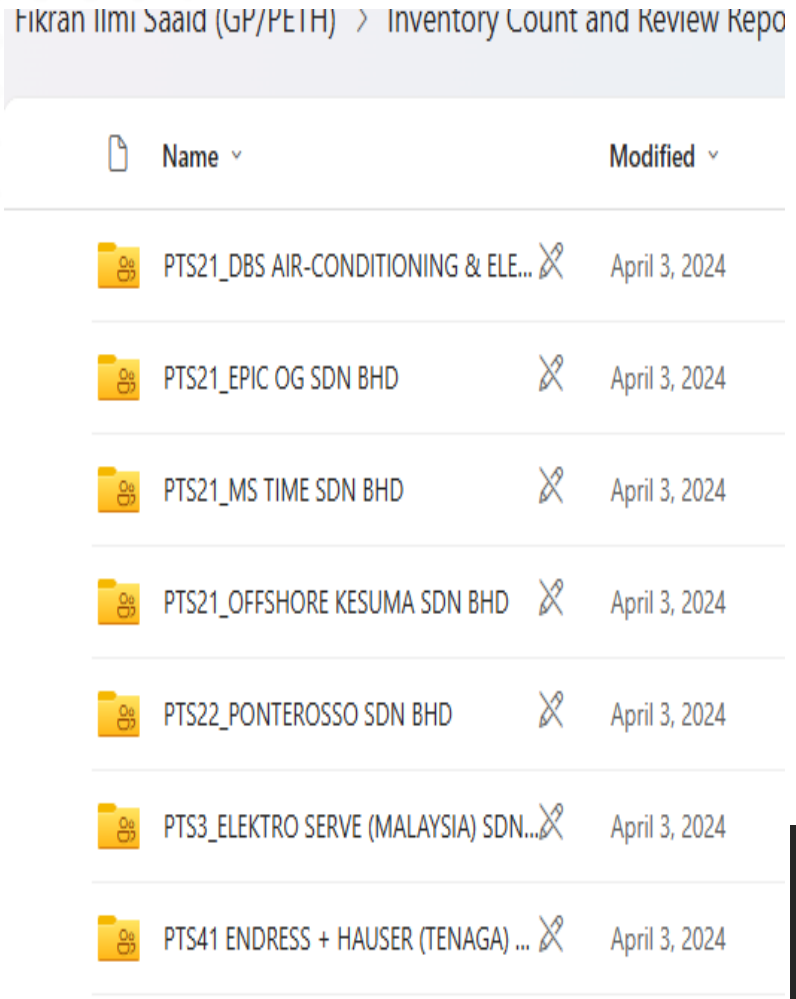
- Consolidate non-stock items from 19 contracts in 2024 into a single comprehensive masterlist using data from GP.

2.Data Verification and Collaboration:

- Collab with the GP team, leveraging their raw material data to confirm the accuracy and status of each item.

3.Dashboard Development:

- Develop an interactive dashboard in Power BI to analyze and visualize non-stock material data, with a specific focus on 2024 items.
- Highlight material statuses (surplus, ongoing, scrapped, or to be disposed of) for better insights and strategic planning.



Project Internship

Project Overview:

The highlight of this internship project was to design an engaging and visually striking interactive dashboard, making it effortless to gather and analyze data on non-stock materials. The focus was on showcasing the status of these materials in a way that is both impactful and data-driven, ensuring clarity and usability for further analysis.

Problem Statement: Problem in visibility of nonstock material so this project is temporary solutions before PETRONAS start to established full system in CMMA and data also not being captured properly.

Key Features:

Focusing on **non-stock materials for 2024**, providing a detailed view tailored for analytical purposes.

Insightful visualizations to highlight material statuses (e.g., surplus, ongoing, scrapped, or to be disposed of) across locations.

Seamless integration of data, ensuring streamlined updates and accurate reporting.

Process Workflow:

1. Collected raw, loose data file from the GP team and consolidated it into a unified masterlist.

2.Transformed and cleaned the data using Power Query to ensure accuracy and consistency.

3. Built an interactive dashboard in Power BI, emphasizing non-stock materials across various locations, their statuses, and material values.

Model View

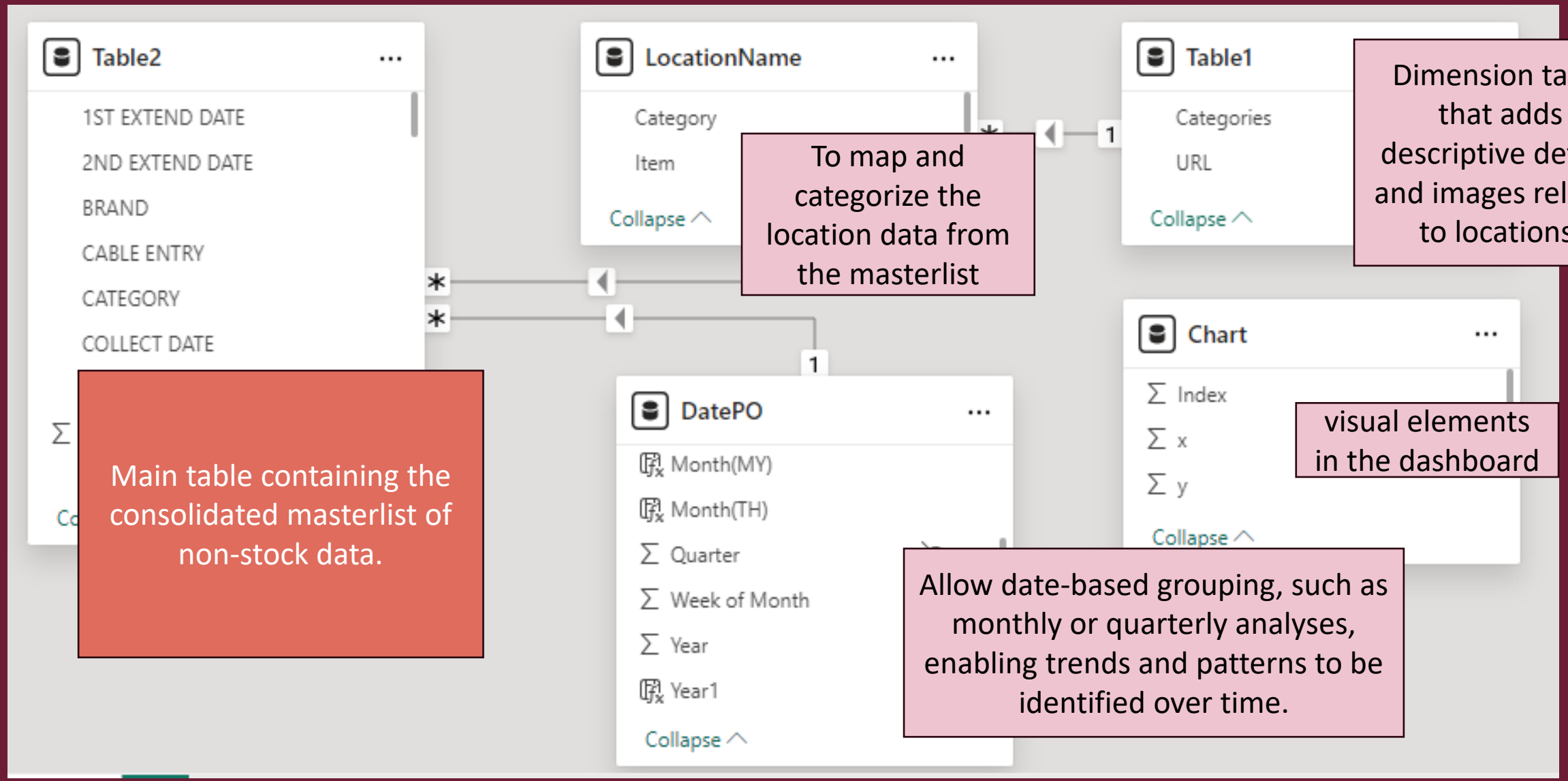


Table2
1ST EXTEND DATE
2ND EXTEND DATE
BRAND
CABLE ENTRY
CATEGORY
COLLECT DATE
LocationName
Category
Item
Collapse
Table1
Categories
URL
Collapse
Dimension table that adds descriptive details and images related to locations.
To map and categorize the location data from the masterlist
Main table containing the consolidated masterlist of non-stock data.
DatePO
Month(MY)
Month(TH)
Quarter
Week of Month
Year
Year1
Collapse
Chart
Index
x
y
Collapse
visual elements in the dashboard
Allow date-based grouping, such as monthly or quarterly analyses, enabling trends and patterns to be identified over time.

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Problems Faced During Project Completion

- **Data Insufficiency and Inconsistencies:**
  - **Issue:** Data from contractors was inconsistent in structure and content. Some contractors provided data for certain columns, while others did not, leading to missing data in various parts of the masterlist.
  - **Impact:** This made it challenging to consolidate the data into one comprehensive masterlist and caused gaps in certain analyses

- **Complexity of Analysis:**
  - **Issue:** Due to the limited and inconsistent data, analyzing it effectively was challenging.
  - **Solution:** To address this, I created multiple DAX (Data Analysis Expressions) measures, such as percentage change comparisons between 2023 and 2024, to extract valuable insights from the available data.

- **Hardware Limitations:**
  - **Issue:** My laptop frequently lagged or shut down when running Power BI due to insufficient hardware specifications.
  - **Impact:** This caused delays as I had to restart Power BI repeatedly, sometimes losing progress and starting from scratch.

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Additional Activities

01 COMITEE FOR FAREWELL HJ IDEY

02 REGISTRATION UNIT FOR PD TOWNHAL Q4 2024

03 COMITEE ACTIVITIES UNIT FOR KPI SETTINGS 2025

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Lessons learned during Internship

Understanding Organizational Dynamics

•Understood the importance of teamwork and coordination within departments.
•Learned to prioritize tasks and communicate progress effectively.

Adaptability and Problem Solving:

•Overcame challenges through self-research and creative solutions.
•Adapted quickly to unexpected technical issues and resolved them.

Professional Growth

•Enhanced communication and collaboration with cross-functional teams.
•Learned to align tasks with organizational goals and priorities.

Technical Skills:

•Gained hands-on experience in system deployment and configuration.
•Developed expertise in cybersecurity tools and threat management.

THANK YOU

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