Problem Statement #2: Automated Balance Sheet Assurance

Background

The Finance & Accounts teams across the Adani Group—managing over 1,000 plus legal entities—invest substantial time in review the numbers of Financial Statements on a monthly, quarterly, and annual basis. This process primarily involves the following key activities

- Assigning the Trail Report GL accounts to multiple stakeholders as per the responsibility matrix
- Maker & checker matrix adherence
- GL Validations, checks and review of hygiene
- Verification of supporting for all the GL accounts.
- Analytical Review

Much of this work is repetitive and manual. With advances in AI, we can now imagine an **autonomous review agent** that gathers the data, validates it, and produces **ready-to-use reports and insights** for leadership.

The Challenge

Build an **AI Agent** (put a cool name ☺) that that covers the end-to-end lifecycle of review of Financial Statement numbers

- Collecting the data from multiple sources (spreadsheets, databases, ERPs, emails).
- Consolidating and cleaning data.
- Generating the draft reports
- Applying checks for accuracy and compliance.
- Providing interactive insights via dashboards or conversational interface.

Core Capabilities

1. Data Ingestion & Consolidation

- Create one tool which can extract the company-wise trial report from multiple SAP servers on daily basis
- Assign the user name /person responsibility (Name, department, e mail ID) against each GL accounts based on the master responsibility matrix
- In case of NON-SAP entities, the input template needs to be created for manual trial report uploading in the tool
- Auto e-mail to each user for uploading the supporting document against each gl.
- Auto e-mail to reviewer post the supporting / back up working file uploaded by the users
- Auto e-mail to Business FC post the GL account reviewed by the reviewer
- Auto e-mail to each user post the GL account reviewed by Business FC

2. Automated Report Generation

- Generate exhaustive reports covering the following
    - The status of numbers of GL accounts for which back up / supporting working is pending to be uploaded in the tool
    - The status of numbers of GL accounts reviewed by respective stakeholder & number of accounts pending to be reviewed
    - Deviation with respect to the assigned timeline
    - Graphical presentation of hygiene of overall GL accounts
    - Major GL variances compared to last month / quarter

- Produce both tabular and visual summaries (charts, graphs).
- Automated report generation based the special user queries

3. Validation & Compliance Checks

- The responsibility hierarchy based the authorisation so that the relevant person can only login
- Ensure that total of trial report is Nil.
- The numbers as per the working file / supported file uploaded should match with the GL account
- Post trial report extraction and supporting uploaded by users / review, in case of any change in GL account balance, the same needs to be highlighted to User & Reviewer immediately

4. Continuous Learning Loop

- Learn common reporting errors / mismatches
- Improve accuracy with human feedback: "This line item is new" → model learns correction.

5. Agentic Behaviour

- Work like a reporting assistant: autonomously collect, compile, draft, and summarize.
- Proactively surface insights:
    - *"Expense for the current period if X times the expenses of previous month / quarter / year*

6. Interactive Visualization

- Dashboard for drill-down (e.g., Profit, Assets by business unit, Company-wise various data).
- Conversational interface to query reports: *"Show me year-over-year Profit of Adani Ports."*

Why It Matters

- Reduces manual reporting / benchmarking effort and cycle time.
- Ensures accuracy, consistency, and transparency.
- Frees finance teams to focus on analysis instead of data wrangling.
- Turns Review and benchmarking from a backward-looking process into a **real-time, AI-driven insight engine**.

Tech Guidance (just sample – feel free to use what you want)

- **Data Ingestion**: Pandas, Apache Airflow, Power Query, Fivetran.
- **Report Generation**: Python (Pandas, Matplotlib, Plotly), Power BI, Tableau, Streamlit.
- **Validation**: SQL rules, Great Expectations (data quality checks).
- **Learning**: scikit-learn, PyTorch, simple classification models retrained on adjustments.
- **Agent Frameworks**: LangChain, LlamaIndex, Copilot Studio.
- **Interfaces**: Streamlit dashboards, Power BI reports, Teams/Slack chatbot for queries.

Expected Output (Hackathon Prototype)

- Upload or connect to sample datasets (CSV/Excel/ERP exports).
- AI Agent ingests, consolidates, and generates draft reports.
- Dashboard or conversational interface presents key numbers, charts, and anomalies.
- Evidence of **learning** from user corrections (e.g., improving category accuracy).