CASE STUDY

Use Case Overview

Your client is a large Mobile Servicing Chain that is struggling to reconcile daily bank transactions with their General Ledger entries. Almost 70-80% of transactions are being reconciled manually by the accountants because the Bank entries flowing into their **Oracle Fusion ERP System** have no common reference with GL Entries and have day-wise consolidation, hence the AUTO-MATCH functionality of ERP System fails.

Because of this reason, the accountants match the Bank – GL transactions basis – Amount (Exact Match), Date (With Tolerance of 3 days), Account Codes (Same Match).

Task Objective

Design an **"Agentic AI Solution"** that automates this Manual activity and drives the transaction matching for accountants with the help of Artificial Intelligence and have a Learning mechanism from the User Feedback for different parts illustrated below.

For All the parts, the tech stack to be considered is Oracle Cloud Infrastructure (OCI) and Oracle Fusion ERP as system of record.

Part 1: ML Based Approach

- Design a Solution using ML Based Approach that pulls unreconciled data from Oracle Fusion ERP brings over to OCI Layer. Does this transaction matching processing and then pushes the reconciled data to ERP
- Show how the Agentic AI integrates with the ML system and optimization outputs to guide human decision-making
- Use features such as amount, date, account code that handles One-to-One, One to Many and Many to Many relationships to match Bank entry with GL Entries.
- Prevent reuse of ledger entries across multiple bank transactions.
- The solution must show confidence in the score.
- The Solution must ask the User for feedback and approval
- Based on feedback, the model should learn and improve with time
- Consider Optimization to select the best global transaction match
- Based on Approval, the system must replicate the reconciled data back to the ERP.

Response Guidelines:

1. Outline your approach? key features, model choice, confidence scoring, learning loop etc.
2. Describe the complete OCI tech stack that would be used to solution?
3. High level Solution Design using OCI Layer & It's different Components?
4. How would you handle the complex matching logic
5. And key considerations for a Production ready solution thing like AIOps, Security, Data Pipeline etc.

Part 2: Gen AI Inclusion

- Explain why transactions failed to match

- Suggest manual review actions or accounting corrections.
- Summarize reconciliation results
- Answering accountant queries
- Suggest manual review actions or accounting corrections.
- Define inputs and outputs (narrative explanations, summaries).

Response Guidelines:

1. Describe the end-to-end Agentic AI Solution Design over OCI?
2. Reason for the choice of Gen AI Model?
3. Indicative Prompts that you would use?
4. How would you maintain Conversational Context for Accountant Queries?
5. How would you bring human-in-the-loop and Feedback Loop for Model to learn over Accounting Correction Recommendations?
6. And key considerations for a Production ready solution like Security, Guardrails, LLMOps, Security, Data Pipeline etc.