**Google** Cloud

PRESENTS

# Agentic AI Day

Build the next generation of intelligent agents

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## Team Details

a. **Team name: Caffeiners**
b. **Team leader name: Gowtham S T**
c. **Problem statement:** Receipt Management for Google Wallet

**Brief about the idea**

      **Project Receipt Management for Google Wallet is an artificial intelligence-driven assistant that reimagines Google Wallet as an intelligent money companion. It scans receipts with multimodal AI, extracts and structures spending information, and delivers users real-time insights and saving tips. From a paper receipt to an email screenshot to a spoken question in any language, Receipt Management makes it usable by turning it into Google Wallet passes.**

**Opportunities**

- How different is it from any of the other existing ideas?

  Unlike stand alone expense trackers or receipt scanners , receipt is natively integrated into Google Wallet. It supports real-time image, video, or language-based ingestion using Gemini's multimodal capabilities, making it seamless and effortless for the user.

- How will it be able to solve the problem?

  Receipt Management does away with third-party apps or manual entry. It employs AI to extract spending data automatically, classify it, and analyze it while also supporting local language searches and converting insights into actional Wallet passes.

- USP of the proposed solution

A fully agentic experience wherein receipts are not merely scanned but actually interpreted. Receipt fills the gap between passive warehousing and active financial guidance within Google Wallet.

# List of features offered by the solution

**1.Multimodal Receipt Ingestion**

Upload or scan receipts via image, video, or live feed (supports any language or format).

**2.Smart Extraction**

Automatically detect items, costs, tax, total, and vendor data.

**3.Pass Generation**

Create dynamic Google Wallet passes with itemized breakdowns and relevant links.

**4.Local Language Support**

Query using regional language voice or text prompts (e.g., Tamil, Hindi).

**5.Spending Analysis**

Track spending across time and categories (groceries, transport, etc.).

**6.Personal Financial Insights**

    Identify savings opportunities, forecast expenses, and alert on trends.

**7.Shopping List Recommendations**

    Generate shopping passes based on recent purchases or meal plans.

**8.Push Notifications & Updates**

    Notify users of new insights or savings via Google Wallet API.

**Process flow diagram or use-case diagram**

## Technologies to be used in the solution

- **Gemini Multimodal AI** – Receipt and language understanding

- **Vertex AI Agent Builder** – Personal assistant orchestration

- **Google Wallet API** – Pass generation and management

- **Google Cloud Storage** – Receipt and user data storage

- **Firestore / BigQuery** – Expense data analysis

- **Langchain / PaLM API** – Query parsing and prompt chaining

- **Google Translate API** – Local language support

**Architecture diagram of the proposed solution**

**Wireframes/Mock diagrams of the proposed solution (optional)**