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# Multi agent multimodal Synthetic data Generator

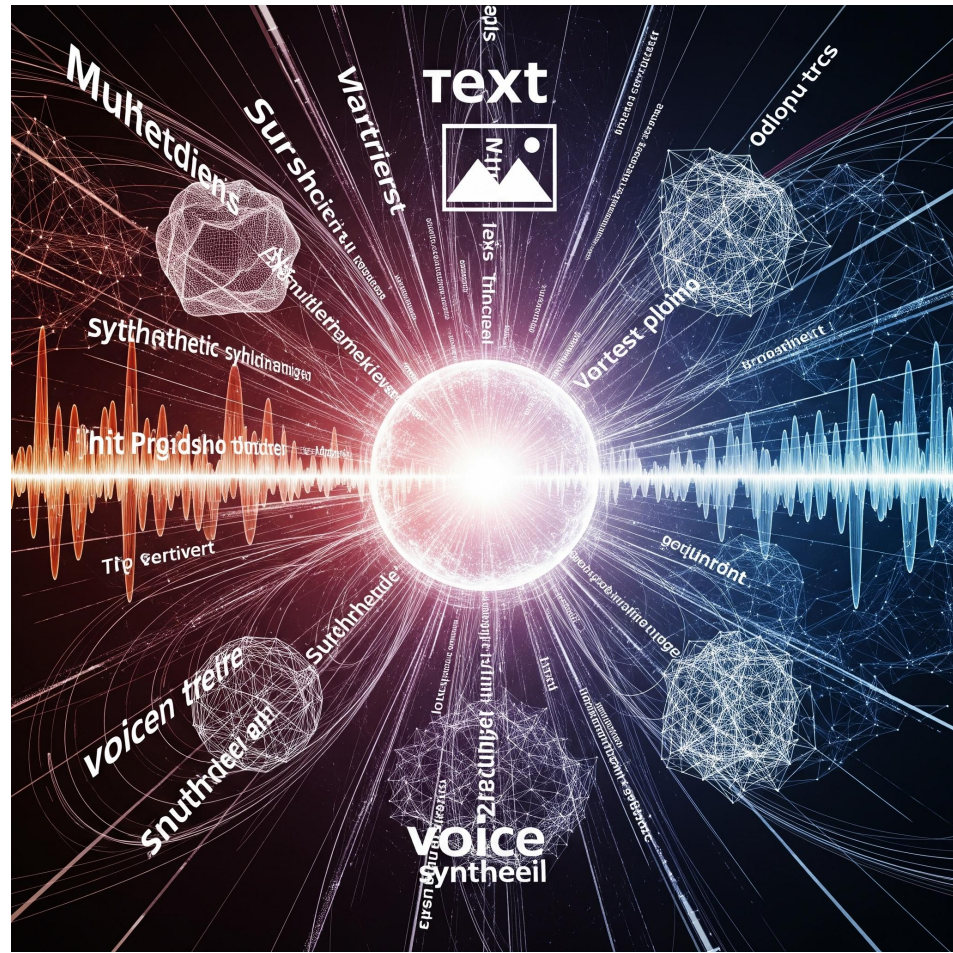
ADK Hackathon 2025 - Jayanthi Suryanarayana

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# Why Multi modal Synthetic Data

With billions of dollar investments in the industry for Generative AI and digital transformation initiatives, the key challenge is having enormous data to accelerate innovation and adoption. Multi modal synthetic data is the answer to this challenge. It is data that is connected across various modality such as tabular, image , notes etc. that

- Fuels software development productivity
- Innovation in model capability



# Goals for this hackathon

## **ADK Understanding:**

Understand the tool set ADK, the core concepts of agents and runtime

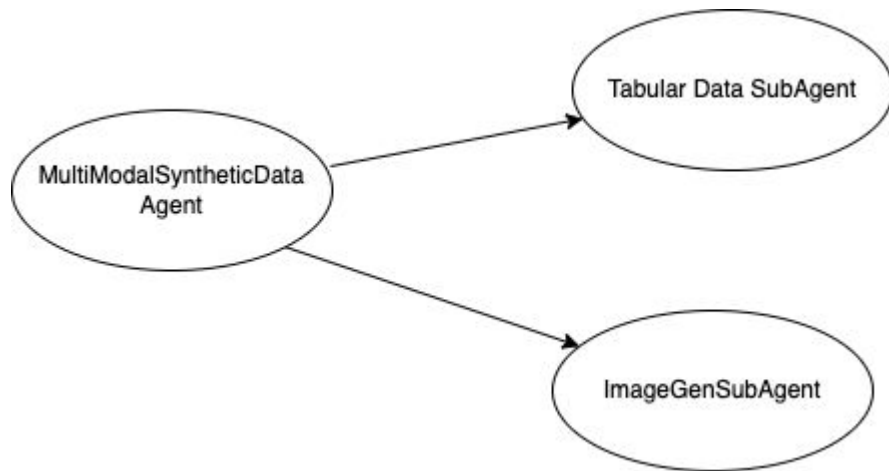
## **Multi Agent:**

Build a simple working multi agent end to end that generates multi modal synthetic data

## **Runtime:**

Interactive, Google collab environment

# Multi Agent Architecture



This is a bimodal synthetic agent that generates tabular synthetic data and an image. The modular structure can be extended to create other modalities like text, audio etc.

# Steps Summary

Set up and install libraries

Import libraries

Set up Authentication

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Create Functions for image(google gen ai) and tabular data generation (third party tool)

Set up sub agents for each modality

Set up Master agent

Set up a function for agent  
interaction with the runtime

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Call the agents asynchronously

# References and Next Steps

**Github Link:** <https://github.com/jaynetra/GoogleADKHackathon>

**Arch Diagram:**

<https://github.com/jaynetra/GoogleADKHackathon/blob/main/MultiModalSyntheticDataAgent.drawio.png>

**What is next:**

Understand interfaces well with data passing etc, and deploy on vertex ai for enterprise capabilities