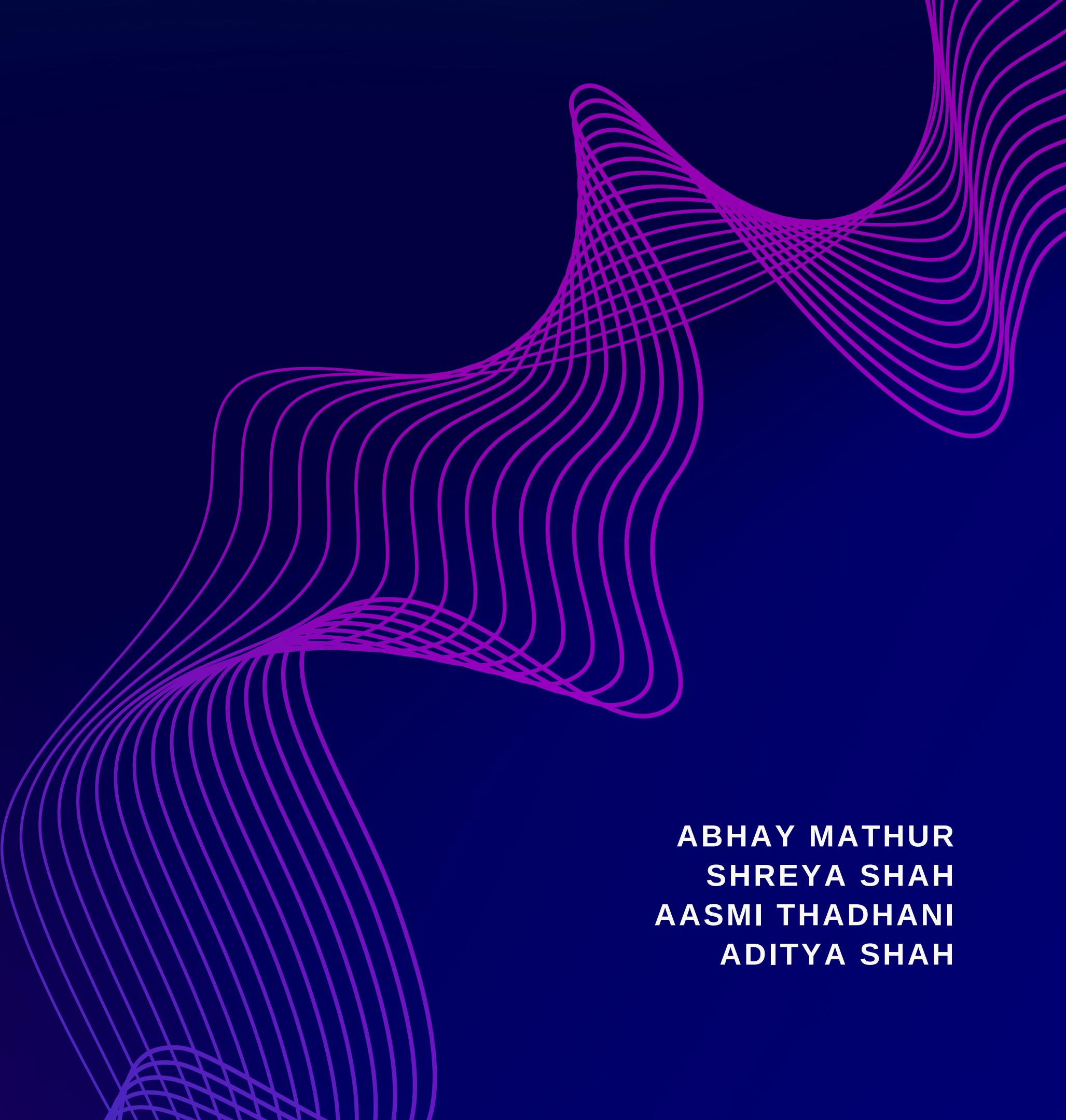




TENSIONFLOW PRESENTS

AURA

A voice that understands you



ABHAY MATHUR
SHREYA SHAH
AASMI THADHANI
ADITYA SHAH

Features

- 1 Personalized Assistant
- 2 Improved Automatic Speech Recognition
- 3 Complex Task Accomplishment
- 4 Federated Machine Learning
- 5 Advanced Security and Privacy
- 6 Command Line Execution
- 7 Live API Integrations
- 8 Mathematical Equation Solving

Command Line Execution

Natural Language to Command Generation

eg. Check and update the status of my git for x directory

High level Command Execution

eg. create and run a basic react app

Command Refinement

Repeats queries with errors until correct code executes





Improved ASR

- Uses noise cancelation module and multiple audio sources to obtain optimal speech recognition.
- Further, uses a tri-gram model, to capture user's speech patterns.
- Gives an improvement of about 7.2% in an initial accuracy of 85.6%

Advanced Security and Privacy Features

2 Stage User Verification

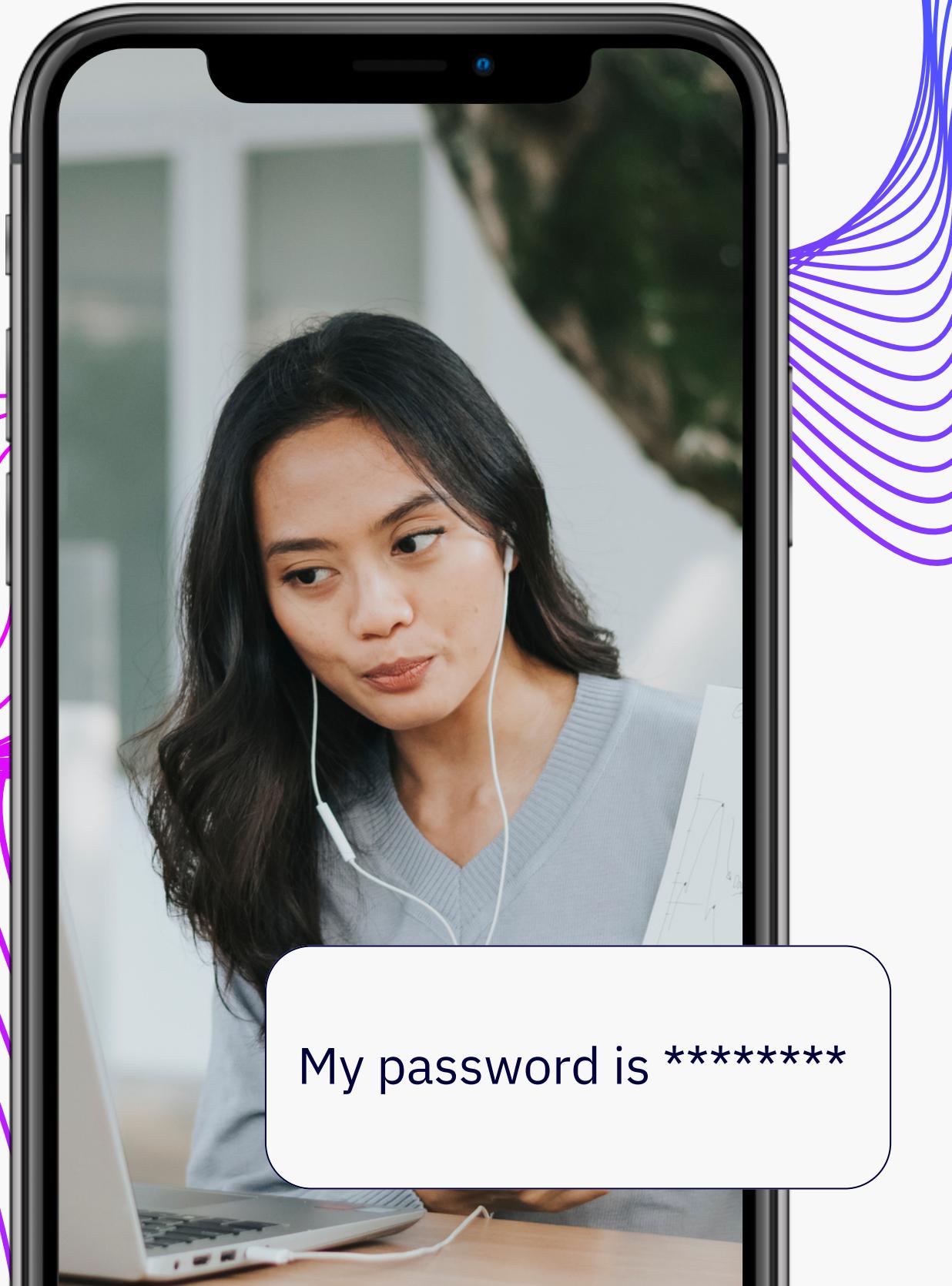
Login/Signup and Voice Recognition (LEAN architecture)

Content Redaction before re-training

eg.

Original Text: John Smith from Acme Corp lives at 123 Main St. His phone number is (555) 555-5555.

Redacted Text: [RED] [RED] from [RED] [RED] lives at [RED] [RED] [RED] His phone number is ([RED]) [RED] - [RED] .





Complex Task Accomplishment

- CRUD applications with Google Calendar
- Messaging using Whatsapp
- Sending emails to display latest mails, reschedule meets and other operations.
- Identifying and Displaying most relevant Web Results

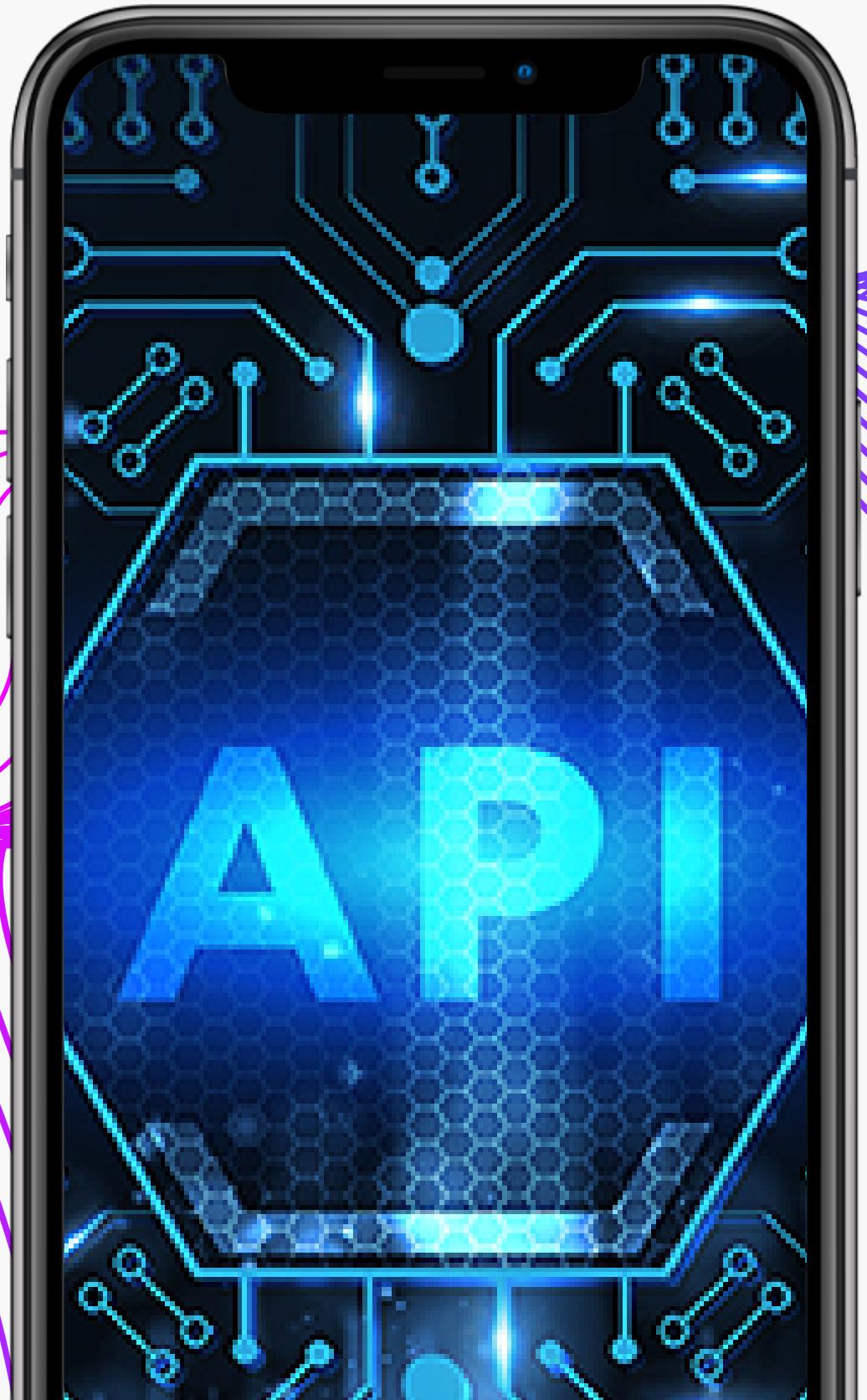
Live API Integrations

Play your favorite type of song (Spotify)

Identifies the genre using chat history

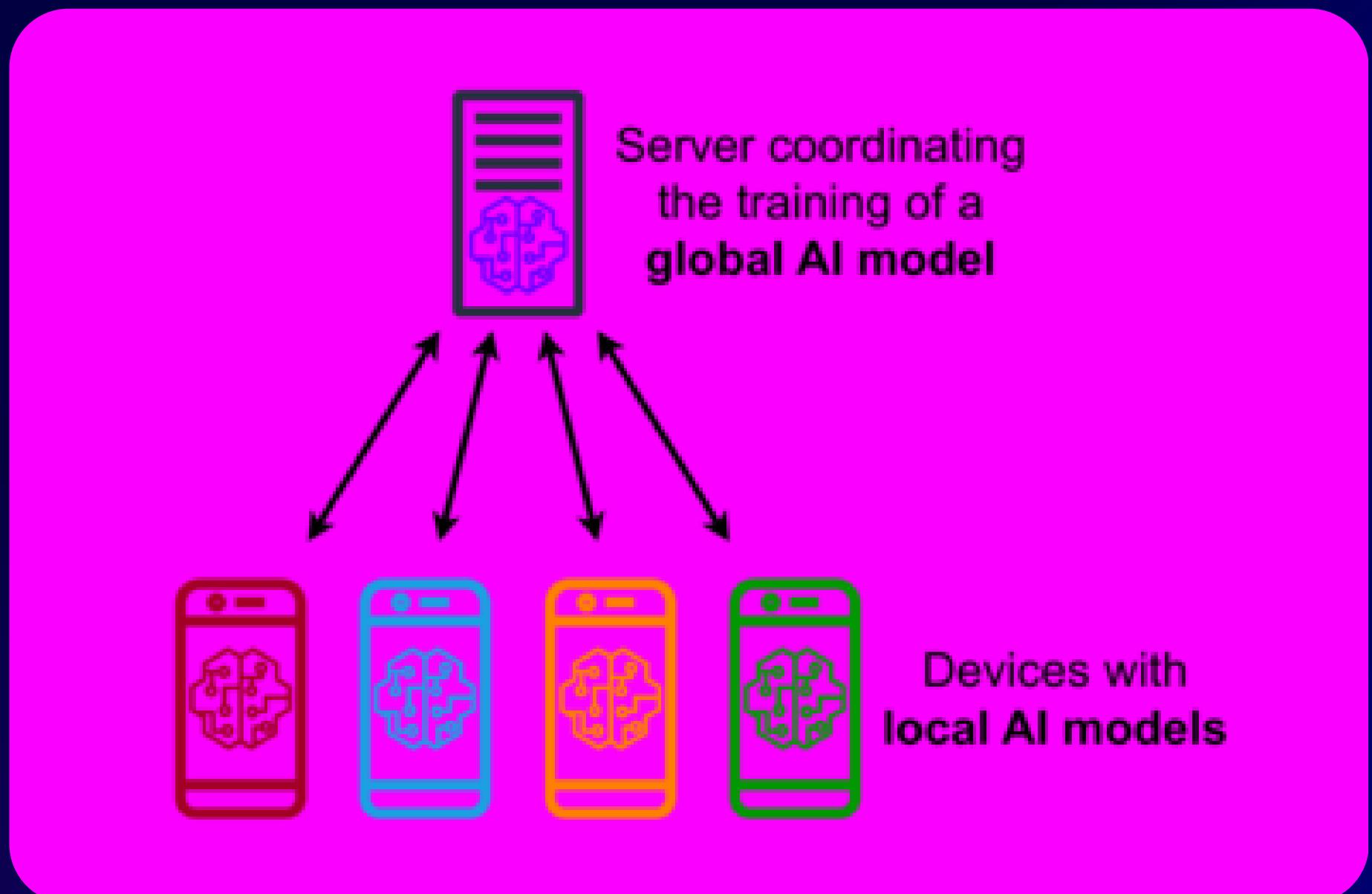
News, Weather and Sports Data

Gives live and most relevant news weather and sports update based on current location.



Federated ML

Updates ML model at core without data breach. Sends regular redacted chat history inferences to core LLM for finetuning.



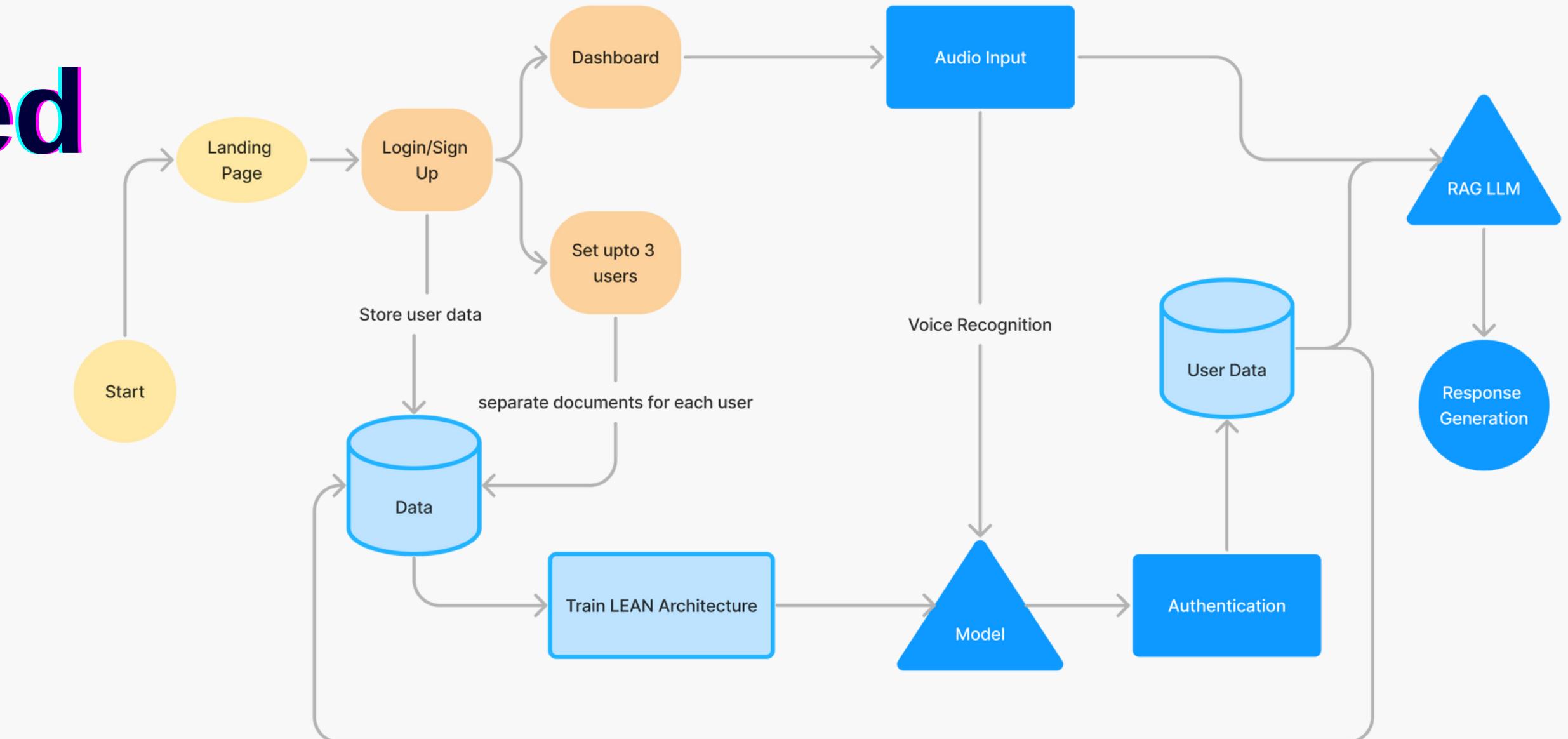


Mathematical Equation Solving

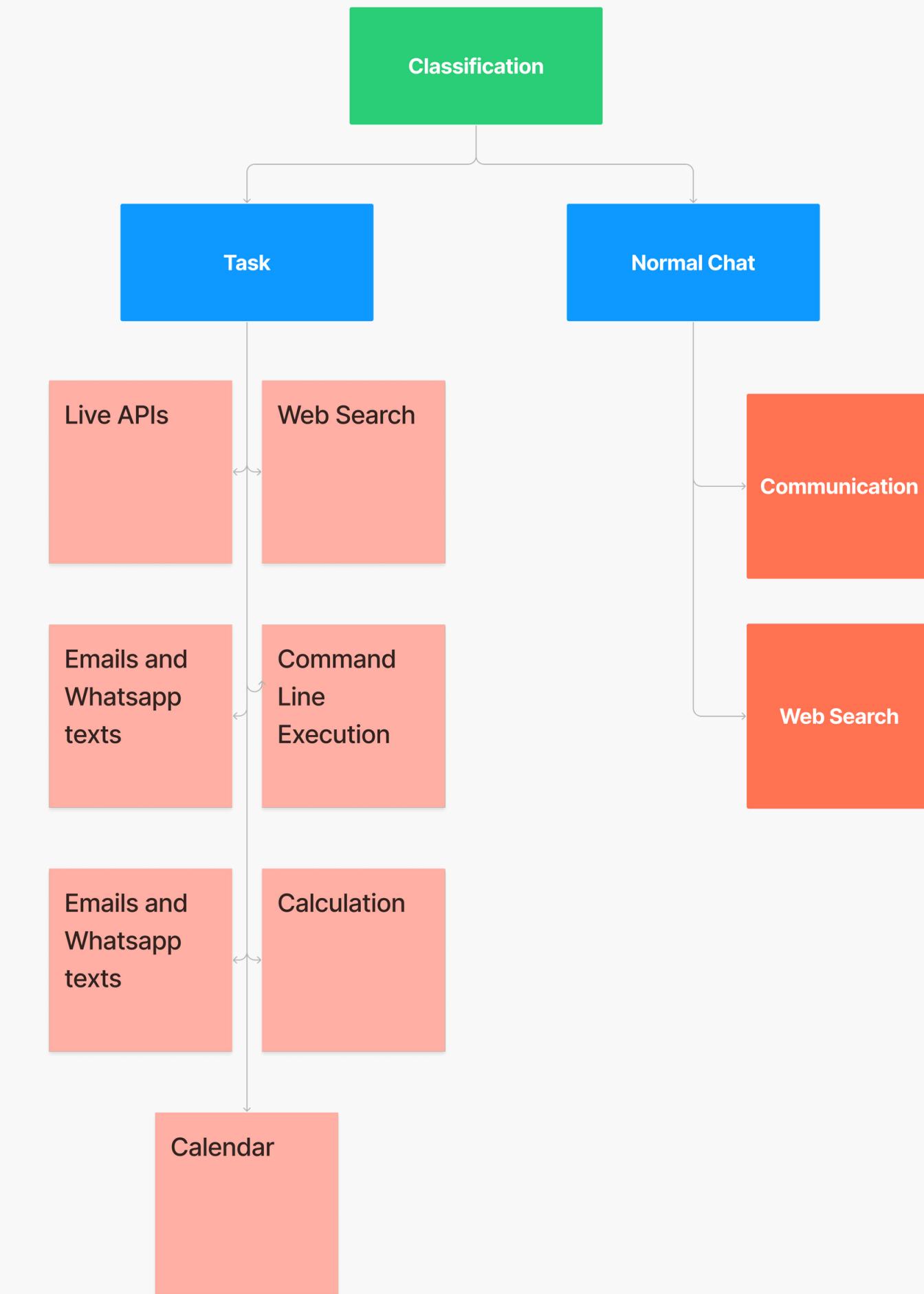
- Uses AutoGen for identifying operands and operators.
- Performs significantly faster than MAMmoTH.
- Not only solves, but also gives steps on how to solve to enhance user knowledge.

Personalized LLM

An LLM is personalized for the user using the following architecture



LLM Classification



Business Model

Operational Cost per month

Only \$100

Competitive pricing

Barely \$20 a month

Monthly users to turn profitable:

6 users



Future Scope

- Integration of more third party applications like Zomato/Swiggy
- Wake Word detection



Thank You

