

Leveraging LLM for Enhanced Mobile App UX

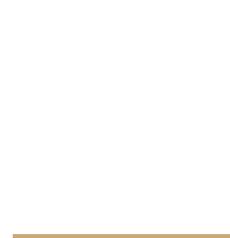
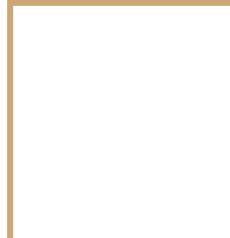


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Aslan



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Also Sports and Coffee Lover ☕



Leveraging LLM for Enhanced Mobile App UX

AI ASSISTANT

AI

Have you ever interacted with an AI
assistant in a mobile app?

What is an LLM?

Large language models are a type of artificial intelligence that is designed to understand and generate human-like text.

Capabilities

- Understanding Context and Intent
- Text Completion
- Pattern Recognition
- Content Rewriting
- Translation
- Text Classification
- Function calling



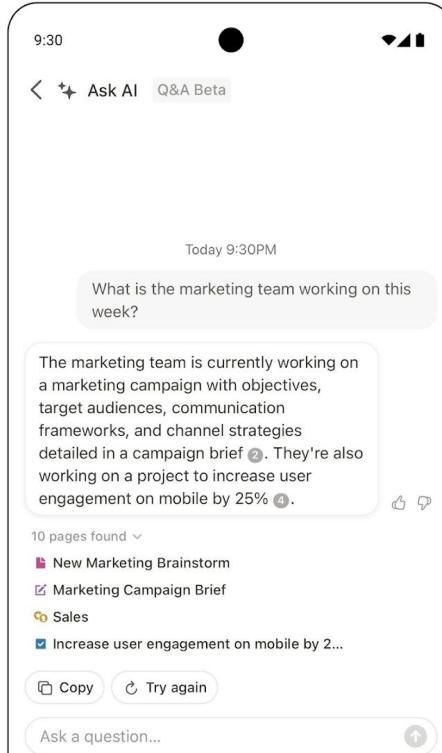
Why?

A LLM can Significantly Enhance UX

- Improved Natural Language Interaction
- Automation of Routine Tasks
- Real-Time Support and Guidance
- Voice commands.
- Enhanced Content Creation and Interaction



Every question answered with Notion AI.



Notion

Enhances note-taking and organization by generating summaries, brainstorming ideas, and drafting content.

A22 : PY pairplot = sns.pairplot(EVData_df, vars=['Revenue', 'Spend', 'Units'], hue='Region', palette='Set1')

	A	B	C	D	E	F	G	H			
1	Advanced Analysis										
2	This sheet will include all Python code generated by Copilot.										
3											
4	Load data from EV Charger Data, Table1										
5	[r] DataFrame										
6											
7	Preview										
8	ID	Category	Revenue	Units	Spend	Reviews	Region				
9	0	P018	Fast Charger	9,568	42	1,310	Works great for my electric bike. Compact and efficient.				
10	1	P008	Standard Charger	10,256	44	1,214	Hilarious! My cat loves to sit on the warm charger. Works well too.				
11	2	P012	Fast Charger	8,085	56	1,195	It's an average product. Nothing extraordinary about it.				
12	3	P011	Standard Charger	9,858	51	1,206	Fantastic charger! Reduced my car's charging time significantly.				
13	4	P003	Standard Charger	26,584	55	1,220	This product is okay, but I expected more features for the price.				
14				
15	45	P045	Standard Charger	17,399	80	2,171	Wouldn't recommend, too many issues with connectivity.				
16	46	P047	Fast Charger	17,460	85	2,233	Satisfied with the performance, but it's a bit bulky.				
17	47	P037	Fast Charger	17,740	93	2,285	Not happy with the purchase, returned it within a week.				
18	48	P049	Standard Charger	20,257	94	2,469	Simple to use, but the instructions could be clearer.				
19	49	P010	Fast Charger	8,005	56	2,560	Mediocre at best. There are better options available in the market.				
20											
21	Create pair plots analyzing relationships between spend, revenue, and units sold, including region.										
22	[r] Image										
23	A 3x3 grid of scatter plots showing the relationships between Revenue, Spend, and Units Sold across four regions: North (red), West (blue), East (green), and South (purple). The diagonal elements show the distribution of each variable for each region. The off-diagonal elements show the pairwise relationships between Revenue, Spend, and Units Sold.										
24											
25											
26											
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31											
32											
33											

Copilot

Analyze my EV Charger Data using Python

I can use Advanced Analysis for that. Here's what I'll do:

- Create a new sheet for the results
- Automatically write and insert Python formulas
- Answer your prompt in multiple messages

First, let's create a pair plot. This provides an overview of relationships between variables, helps identify patterns and outliers. What else would you like to explore?

AI-generated content may be incorrect



Here's what I inserted in A22



(1) Using this workbook

Type a message for Advanced Analysis

 Project manager

Tasks and Projects

 Progress updates

 Summaries

Docs and Wiki

 Summaries

 Action items

People and Teams

 Personal StandUps

 Team updates

ClickUp Brain

 Progress updates for the last 7 days

 Certainly. This sprint is on time and on track to complete in 2 days

- Marketing is completing review of copy for landing pages and emails
- The beta program was launched this week and has good early results, with 12% increase in retention.
- Design signed off on the final product

Would you like more details?



✨ Writing assistant

Perfect your writing seamlessly with an integrated writing assistant that's trained on work.

✨ Write landing page copy

Transform your team's productivity and effortlessly turn ideas into action with ClickUp AI.

✨ Built-in spell check

Automatically check for spelling in your docs and tasks, without any plugins or extensions.

Keynote script

The world's first neural network connecting people, and all of them. Fix spelling.

This pioneering system leverages advanced technology to create an

✨ AI quick replies

Quickly reply to messages with shorthand, and AI will magically craft your message with the perfect tone.



Are on track to get this done?

Yes!

Send

Absolutely, we're on track.

✨ Create tables

Create tables with rich data and insights for anything, from restaurants to competitors.

ROI Q4 2024

October	\$145,000
November	\$97,500

✨ Create templates

Generate templates for Tasks, Docs, and Projects instantly for any use case you can think of.

New Project Template

Status	Done
# Traffic Potential	140k/

✨ Create transcripts

Automatically turn voice into text and use AI to answer questions from your meetings and Clips.

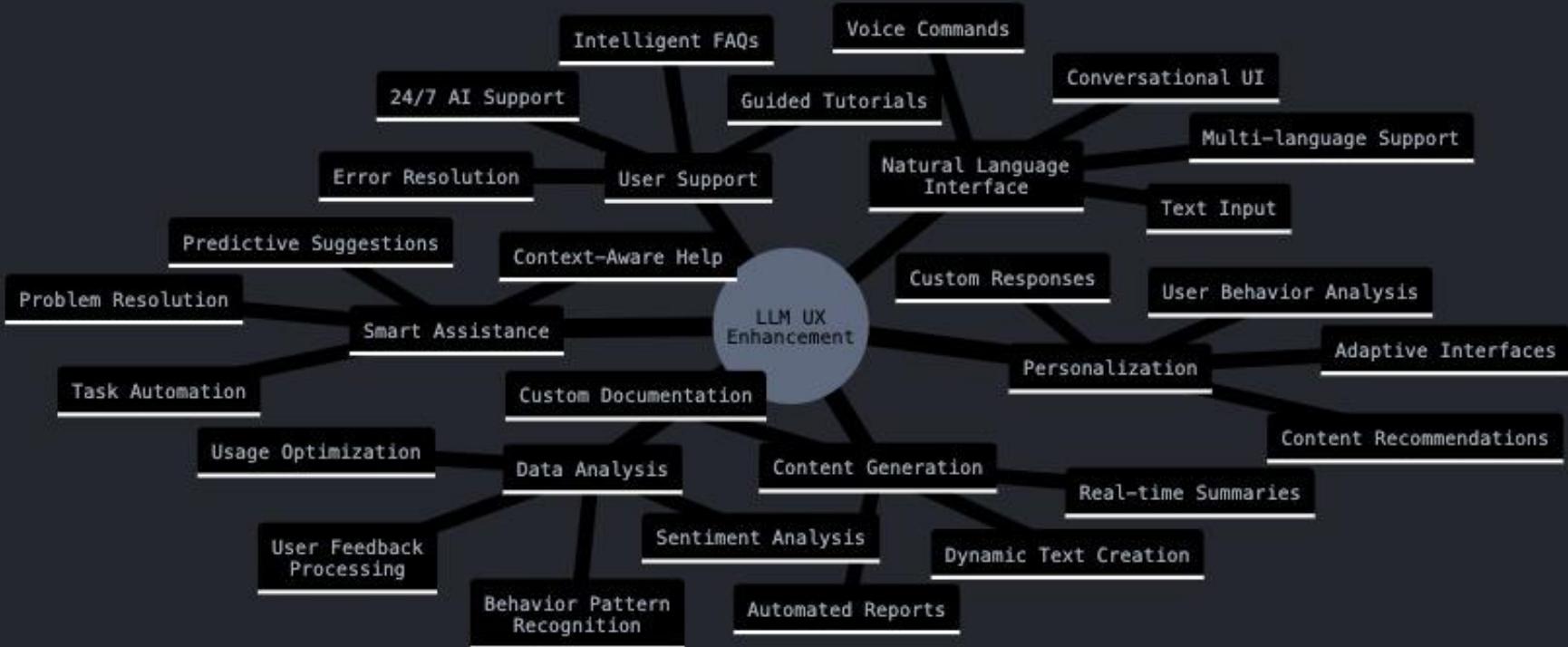


00:14 Hey, Daniel. Everything looks good to me. We should be able to.

00:32

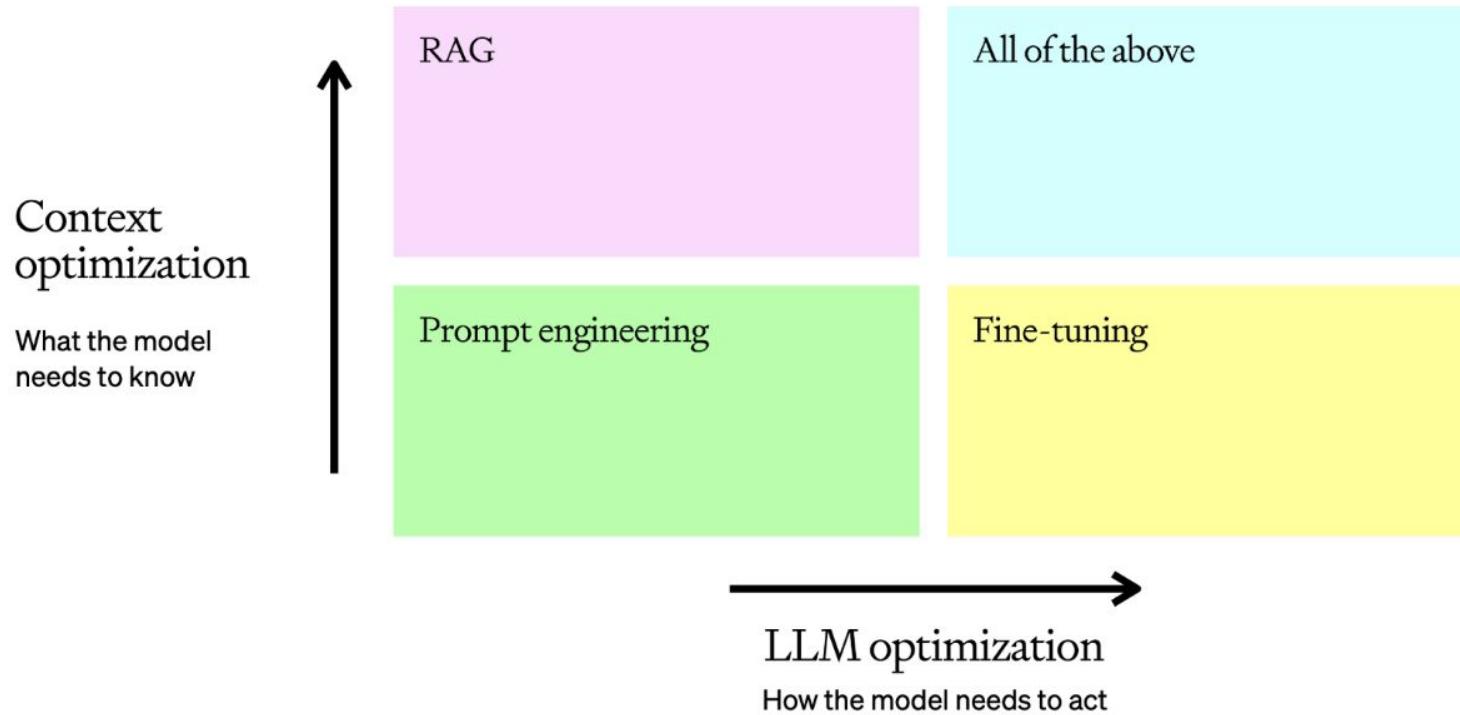


What can we do?



Let's Take a
More Higher
Level Look



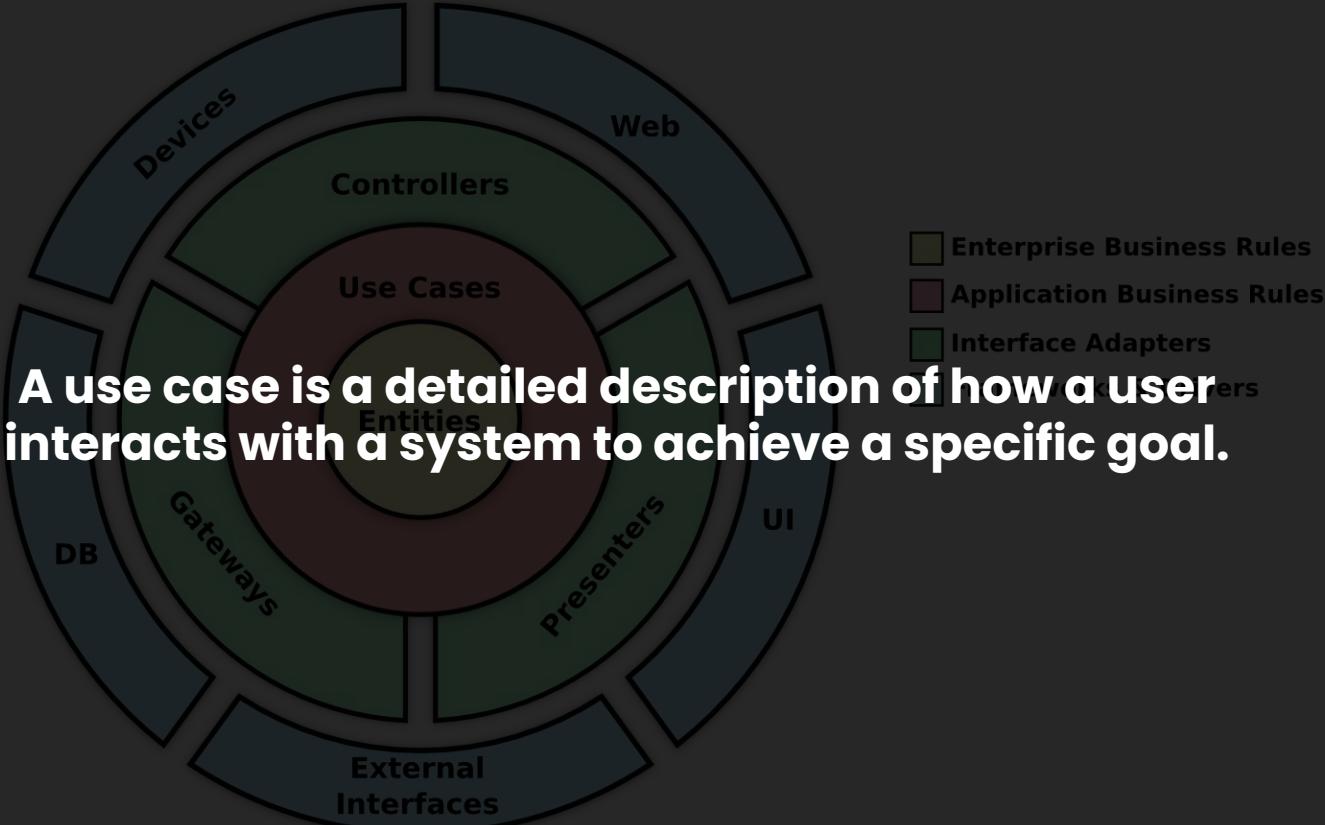


Each button is associated with a specific use case.

But remember 'we' assign that use-cases to them. Users are supposed to find and interact with them.



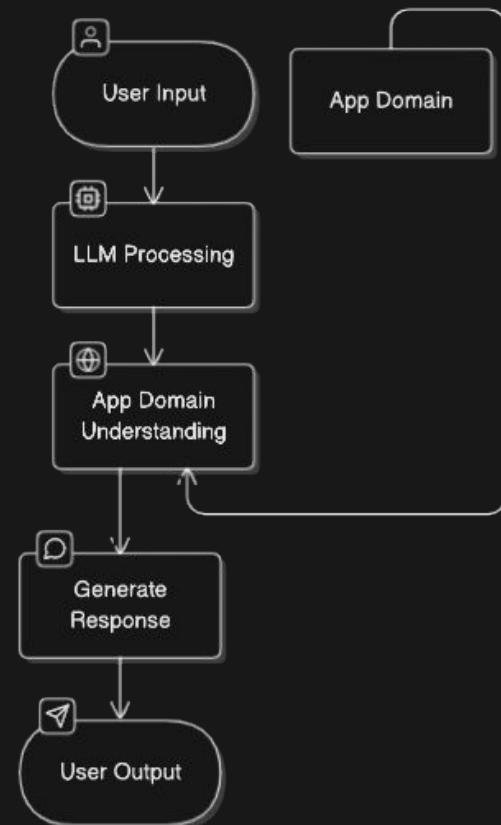
A use case is a detailed description of how a user interacts with a system to achieve a specific goal.



UseCase ~ UX



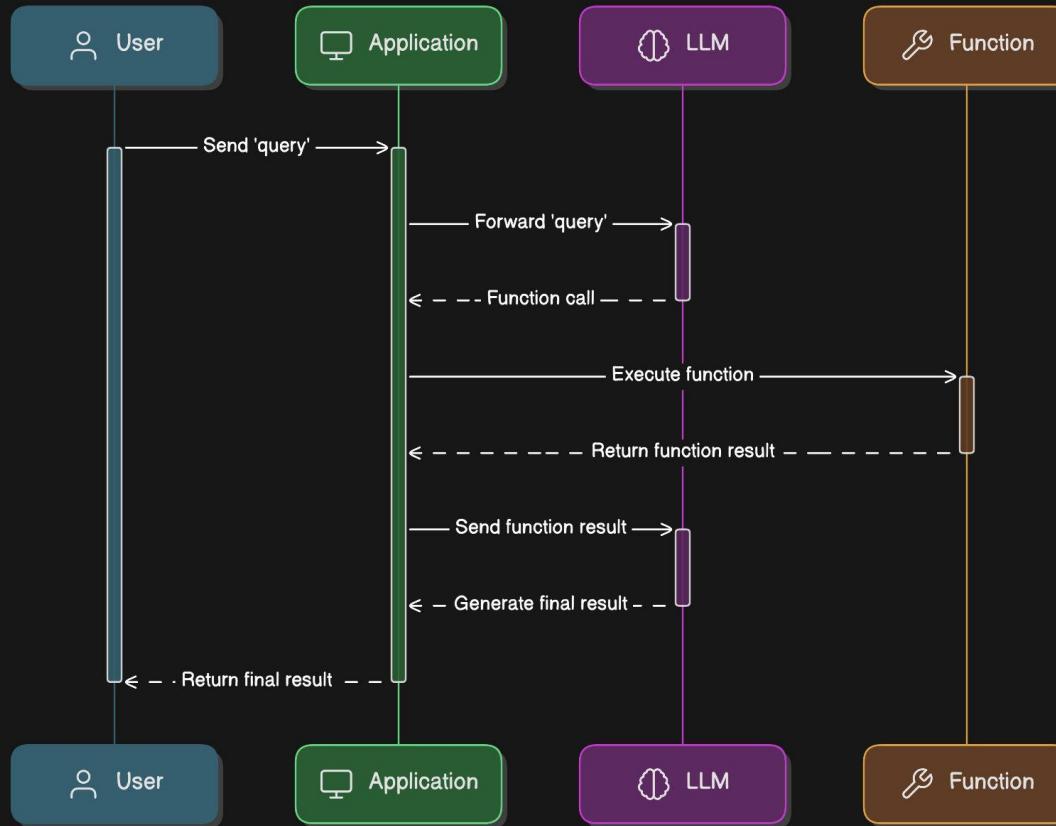
LLM Interaction with App Domain

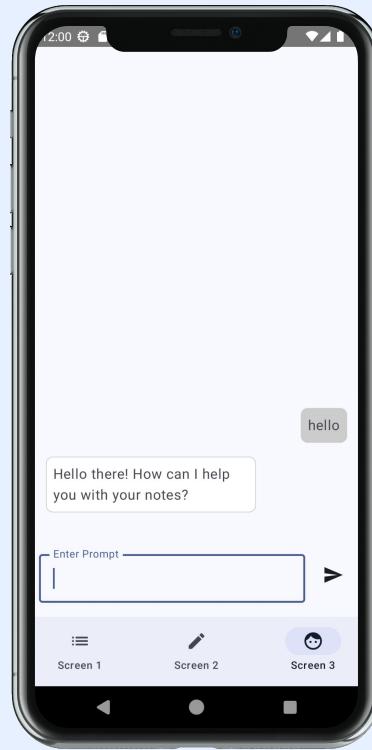
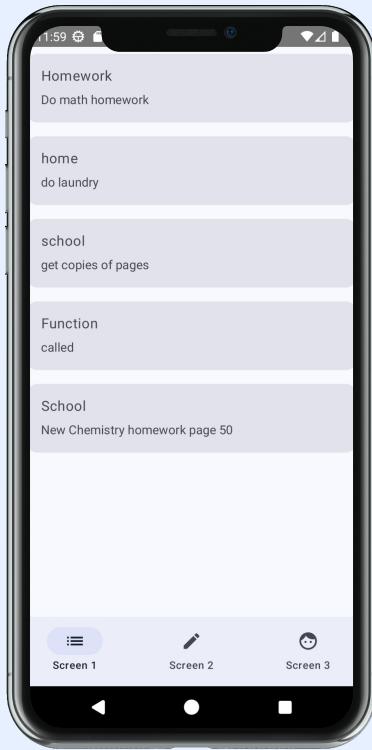


Mapping Use Cases to Functions

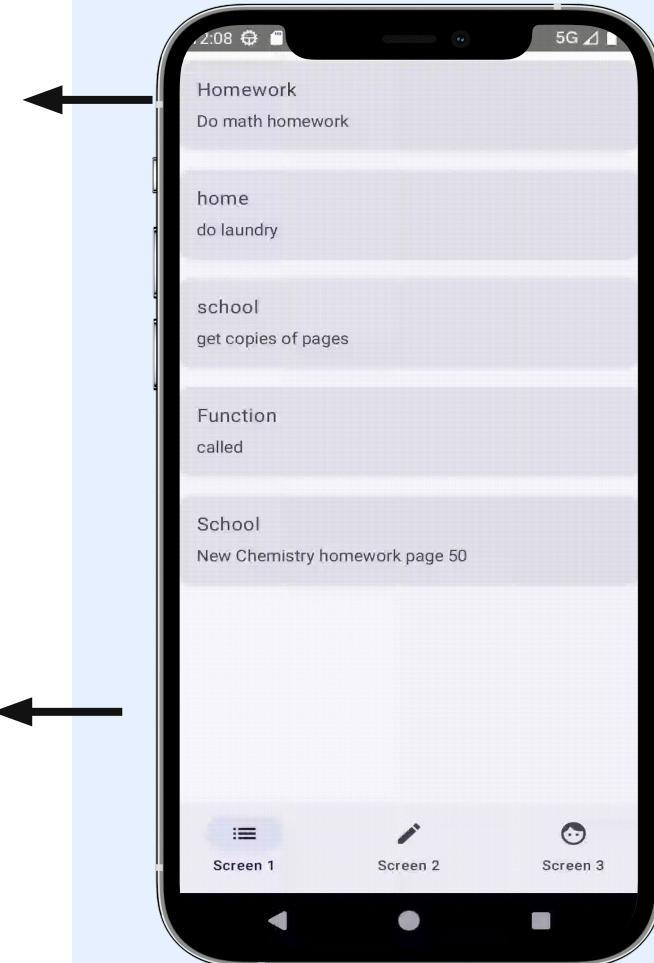


Query Processing with LLM





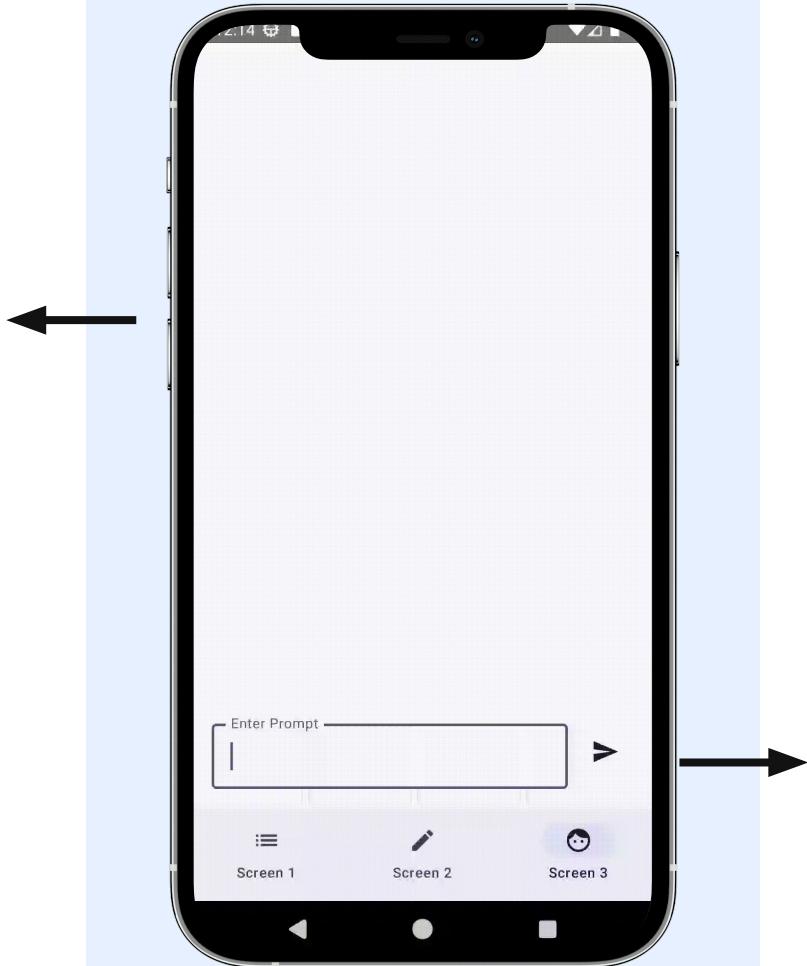
Our domain focuses on saving provided To-Do notes, which is why we have a "create new note" use case.



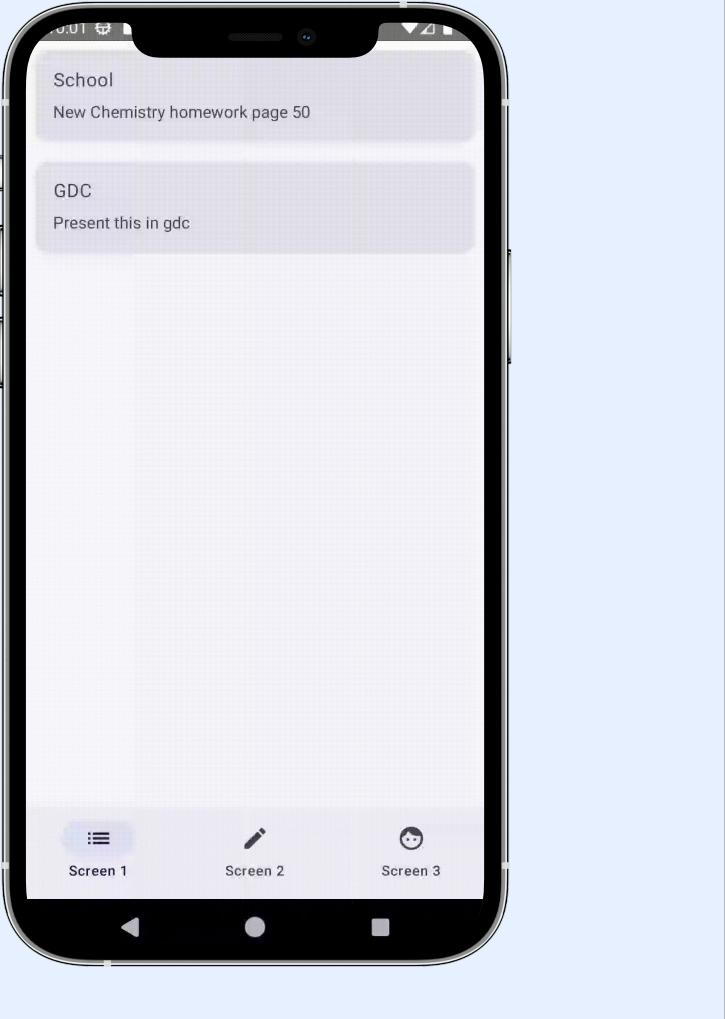
When both a title and content are provided, clicking the button triggers the [CreateNewNoteUseCase](#) to create a new note.

To perform the operation, we can define a [CreateNewNoteUseCase](#), which helps reduce duplication.

Gemini model here is passed
the use case named
"CreateNewNoteUseCase"



When the user requests
note generation, the
model supplies the
necessary function calls
to our application,
where the actual use
case is executed,
resulting in note
creation.



LLM Models for Intent Detection and Function Execution

LLM models can detect the user's intent and determine which function calls to execute sequentially. For instance, they can identify the need to find specific notes and delete them, triggering the appropriate functions accordingly.



Should It Always Be a Chatbot?
Of course no!



The image displays two side-by-side screenshots of the Duolingo mobile application on an iPhone.

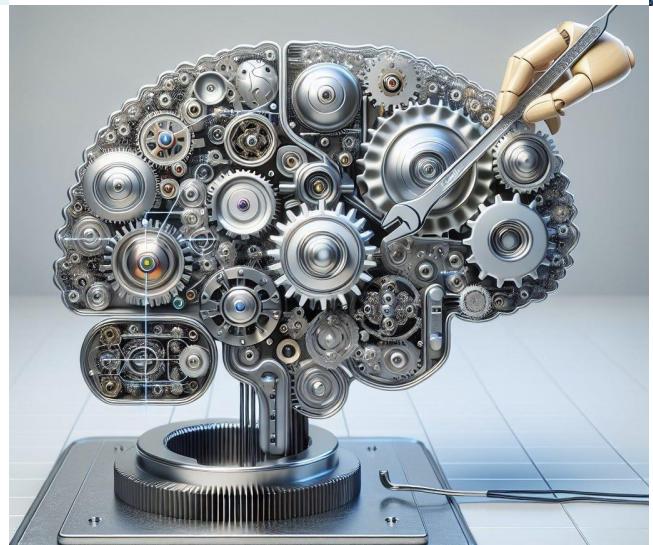
Screenshot 1 (Left): A writing practice screen. The title is "Write this in French". The task is "The boy and his parents". The user's input is "Le garçon et se parents". Below the input field, a pink box indicates an "Incorrect" answer with a red "X". The correct answer is "Le garçon et ses parents". There is a "EXPLAIN MY ANSWER" button and a "CONTINUE" button at the bottom.

Screenshot 2 (Right): A grammar lesson screen. The title is "MAX". The task shows words "Le garçon", "et", "ses", and "parents". A text box explains: "Remember that *ses* is a plural possessive that agrees with the plural adjective it modifies." It lists examples: "Le garçon et ses parents." and "Le garçon et son ami.". At the bottom are "CONTINUE LESSON" buttons and thumbs-up/thumbs-down rating icons.



Prompt Engineer & RAG

Increase context knowledge of your model and enable dynamic knowledge sharing if needed.



Finetune

Fine-tune your model to align with the specific behaviors and actions required by your domain.



Function call

Enable your model to leverage your domain's use case functions to perform real-life actions within your application.

Benefits

- Natural Language Interactions
- Voice Command Integration
- Simplified Onboarding & Intuitive Learning Curve
- Execution of Complex Actions
- Centralized Command Hub via Chatbots
- Easier Creative Content Creation

Risks

- Data Privacy Concerns
- Hallucinations
- Dependency on Connectivity
- Model Bias
- Prompt Injection
- Dependency and Over-Reliance

Conclusion





Thank you for listening