AI SOLUTIONS

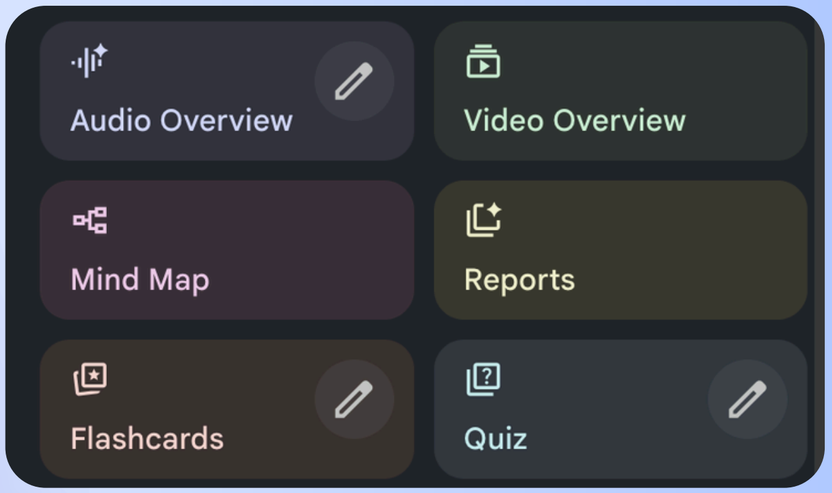
👋 MY NAME IS ALEKS

AI Ambassador @ SAP

TODAY'S AGENDA

- How can **AI** be useful to 👊
- Cool **AI solutions** 🤖
- How should we **look at AI as devs**
- Will **AI** steal my job?

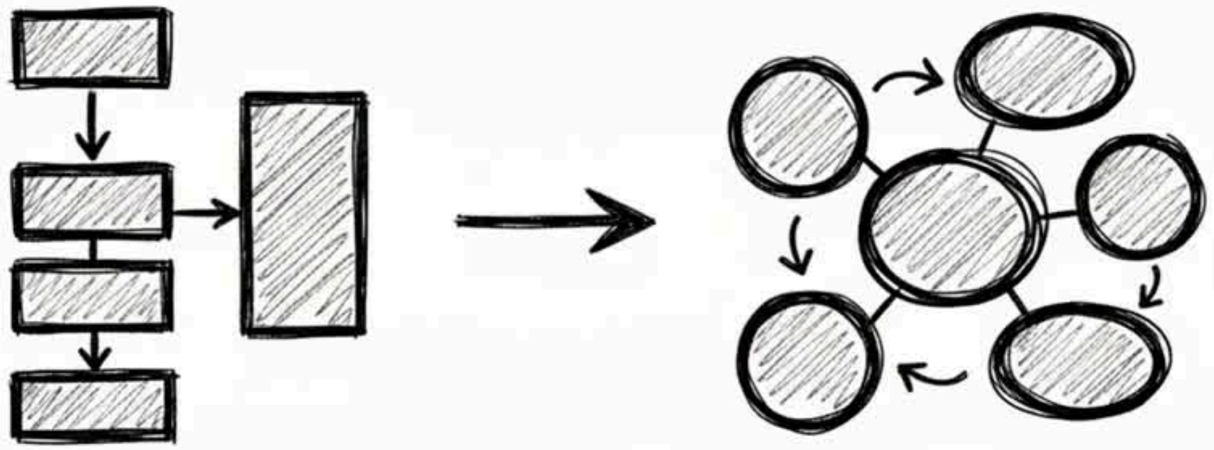
GOOGLE'S NOTEBOOKLM



Software Lifecycle NotebookLM

NOBEBOOKLM VIDEO OVERVIEW

Жизнен цикъл: Водопад до Аджайл



NOTEBOOKLM
AUDIO OVERVIEW

Облачни Дизайн Паттерни: Стабилна Архитектура за Модерни Приложения

Облачните приложения се сблъскват с уникални предизвикателства; хардуер със споделени ресурси, непредсказуеми натоварвания и ненадеждин мрежови връзки. Тези паттерни, предоставени от Microsoft, са доказани практики за изграждане на устойчиви, мащабируеми и сигурни системи в среди като Azure.

Основни категории предизвикателства

Устойчивост и наличност

Системи, конто се самовъзстановяват.

Гарантиране на работата дори при частични повреди на ипфраструктурата или мрежата.

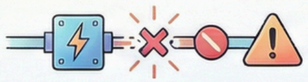
Производителност и скалируемост

Гъвкавост според натоварването. Приложенията трябва автоматично да се разширяват при пикове и да се свиват при затишие.

Сигурност

Многослойка защита в открити мрежи. Изолиране на чувствителни данни и услуги чрез шлюзове и делегирана идептичност.

Топ 3 паттерни за стабилност



Circuit Breaker (Прекъсвач)

Стоп на каскадните грешки.

Предотвратява повтарящи се опити към дефектна услуга, позволявайки й време да се възстанови.

CQRS (Разделяне на отговорностите)

Оптимизирано четене и писане.

Разделянего на интерфейсите за заявки и актуялизации максимизира мащабируемостта и сингурността.

Retry (Повторен опит)

Автоматично справяне с времении грешки.

Прозрачно поетаря операции, провалени поради временна загуба на свърханост.

Сравнение на паттерни според техния основен фокус

Sharding	Мащабируемост на данни	Data Management
Gatekeeper	Повишена сигурност	Security
Valet Key	Директен достъп до ресурси	Performance

LM ARENA

Figure out which LLM works best

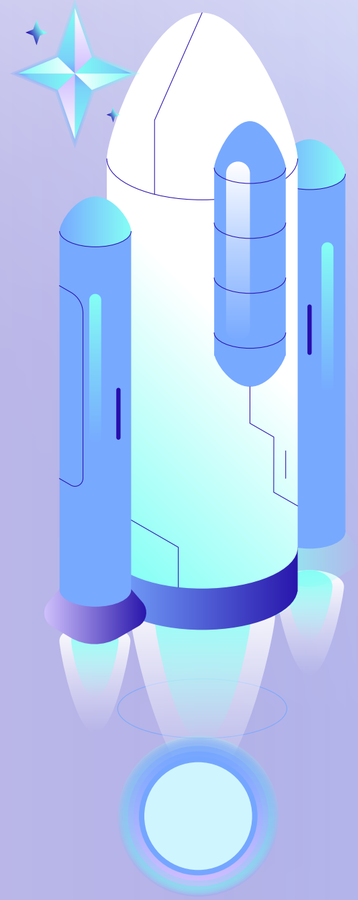
Compare results from different LLMS

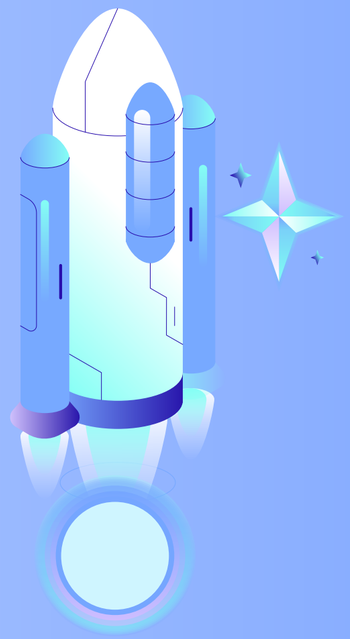
Look at the LMArena leaderboard

Checkout benchmarks

ARENA.AI

OPTIMIZE YOUR PROMPTS





Vibe Check Your AI: Generic prompts get generic "AI-flavored" answers; optimized prompts get results that actually sound human.

Work Smarter, Not Harder: A 30-second prompt tweak saves you two hours of fixing a "hallucinated" mess later.

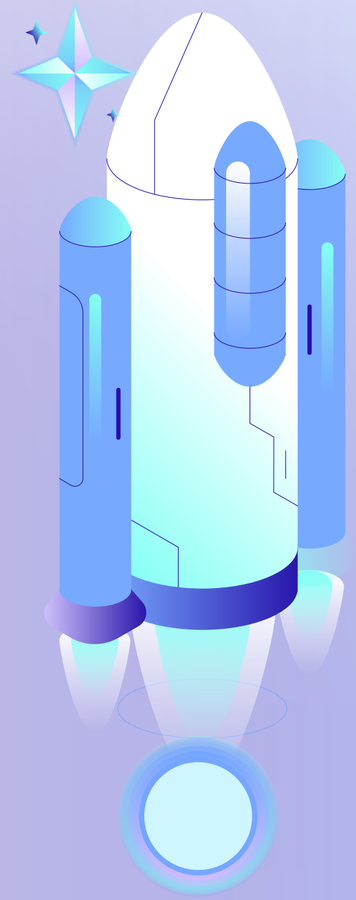
Unlock the "God Mode" Toggle: Learn the right frameworks to make the AI go from a basic search engine to your personal high-level strategist.

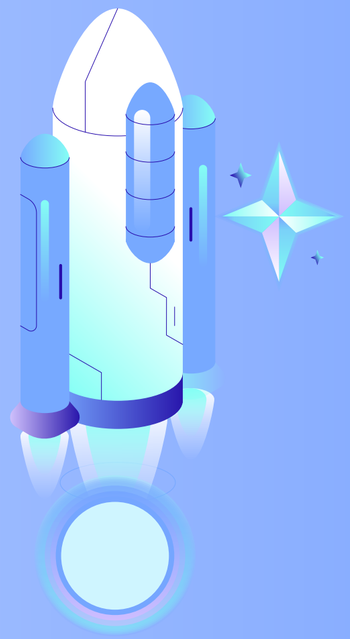
Future-Proof Your Career: Prompt engineering isn't just a trend—it's the "Typing 101" of your generation. Master it or get left behind.

GPT Prompt Optimizer

OPTIMIZE YOUR PROMPTS

Be the best AI teacher





Developer message

Role and Objective

- Act as an outstanding AI teacher dedicated to delivering clear, effective, and engaging explanations.

Instructions

- Begin with a concise checklist (3-7 bullets) outlining the core sub-tasks you will perform to teach the concept, keeping items conceptual.
- Explain concepts in a simple, accessible, and structured manner.
- Adapt your teaching style to the learner's background and needs.
- Provide step-by-step guidance and relevant examples where appropriate.
- After each major teaching segment or example, validate understanding in 1-2 lines and proceed or clarify as needed.
- Encourage curiosity, questions, and deeper exploration of topics.

Output Format

- Use markdown formatting for lists, code, and emphasis.
- Keep output concise, organized, and easy to follow.
- Highlight key points and actionable steps.

Stop Conditions

- Mark completion when the concept is well understood by the learner or when all questions are addressed.
- Attempt a first pass autonomously unless missing critical information; ask the learner for clarification if their understanding is unclear or the instructional goal is ambiguous.

Review changes +22 -1

Persistence

- Be patient a or they indicate readiness to move on.

Describe your use case, desired behavior, and issues

Optimize

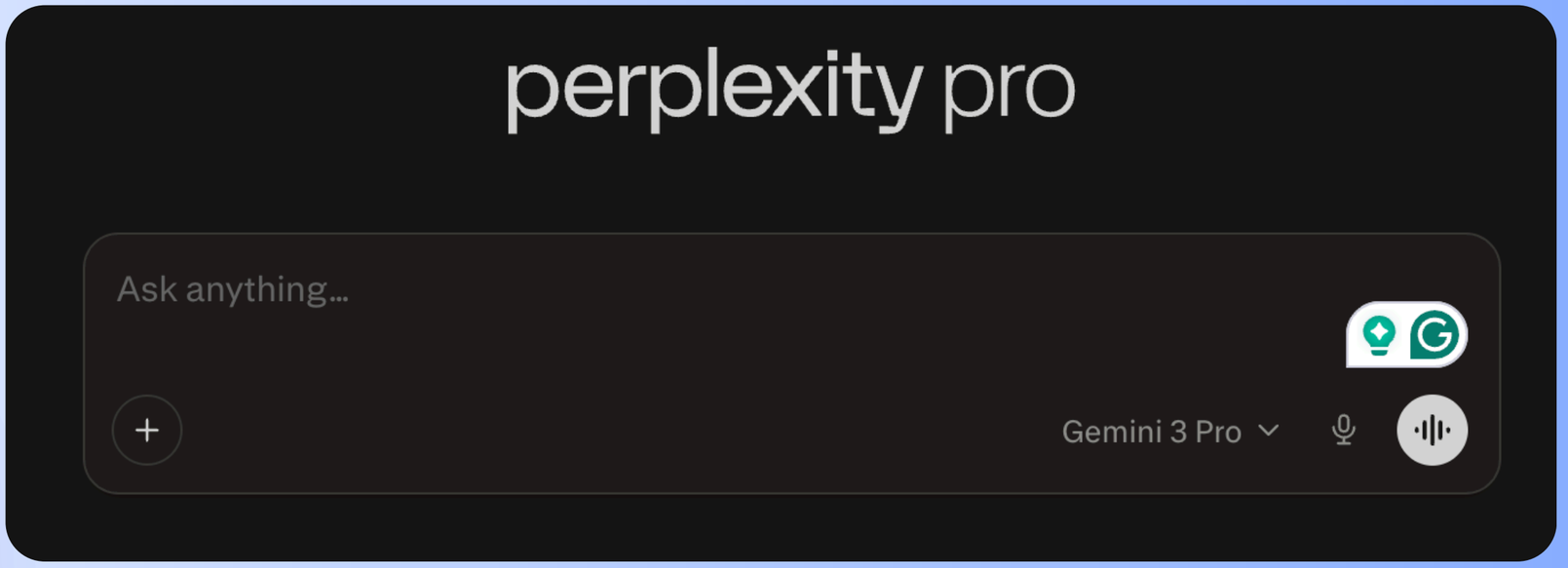
To apply best practices for a specific model click Optimize with no input

GPT Prompt Optimizer

AGENTIC AI

- Moving from simple text replies to **taking real actions** in tools and apps
- Understanding goals and **adjusting steps on the fly**
- Working with people in a smoother, **task-focused way**

PERPLEXITY AI + SEARCH



PERPLEXITY COMET

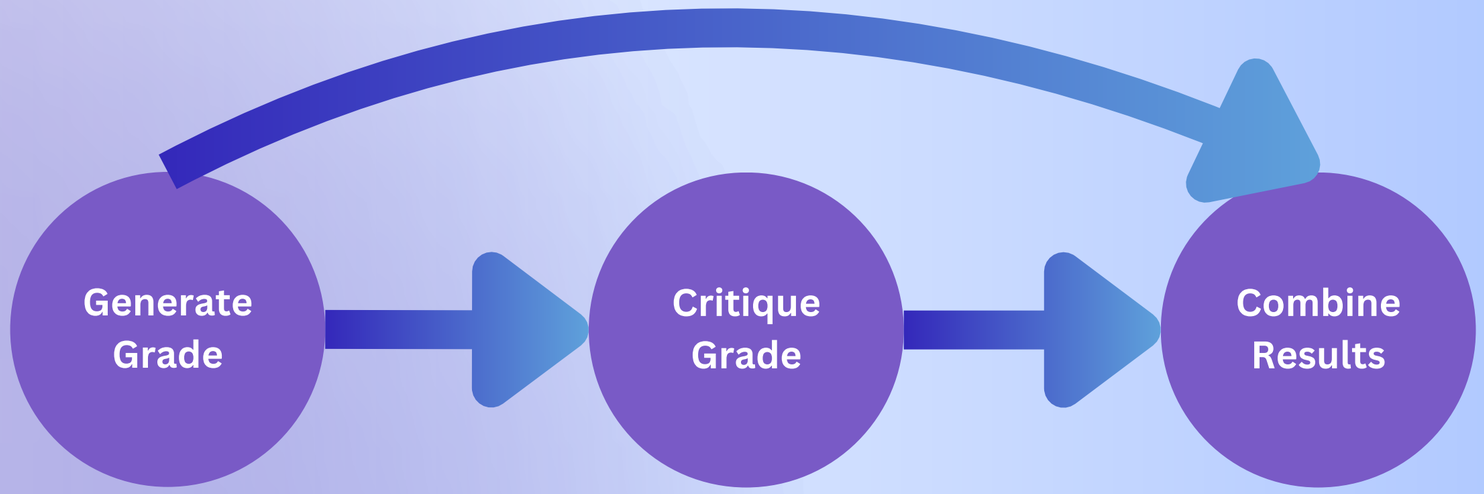
DEV FEEDBACK BUDDY

Generate Grade

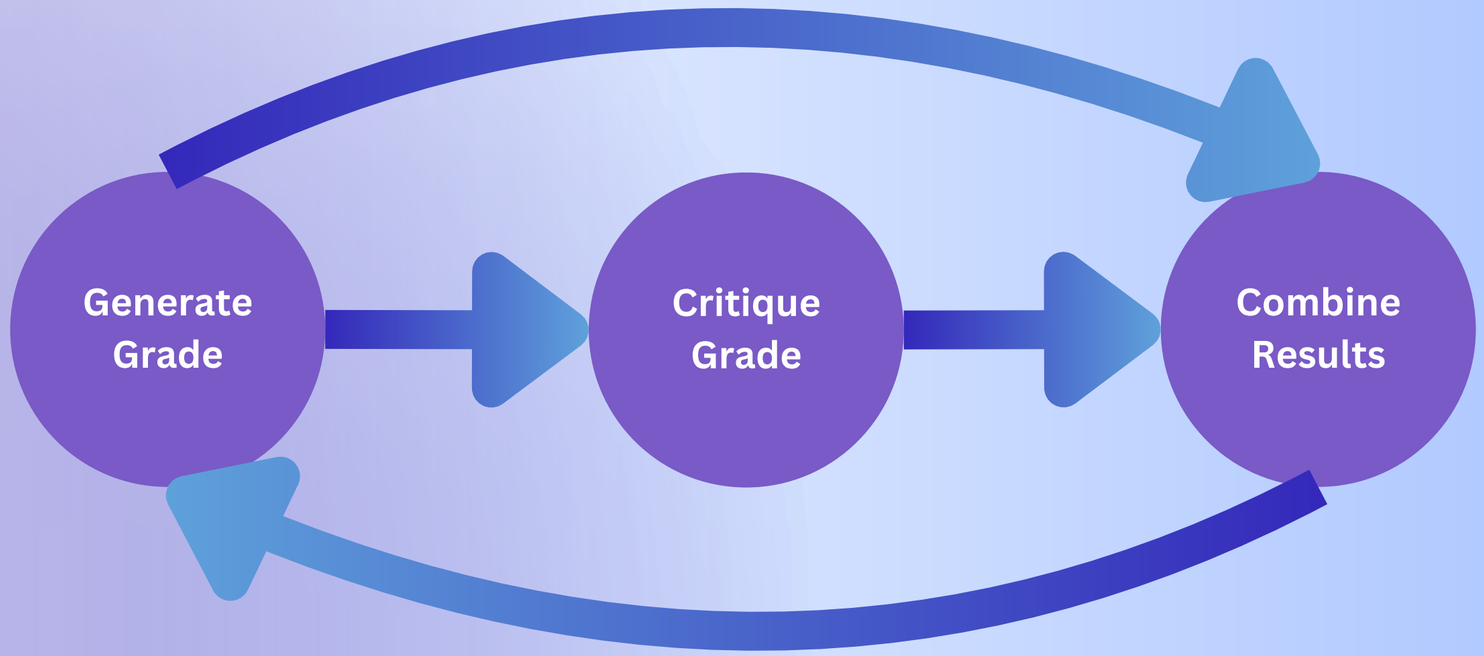
DEV FEEDBACK BUDDY

Generate Grade → Critique Grade

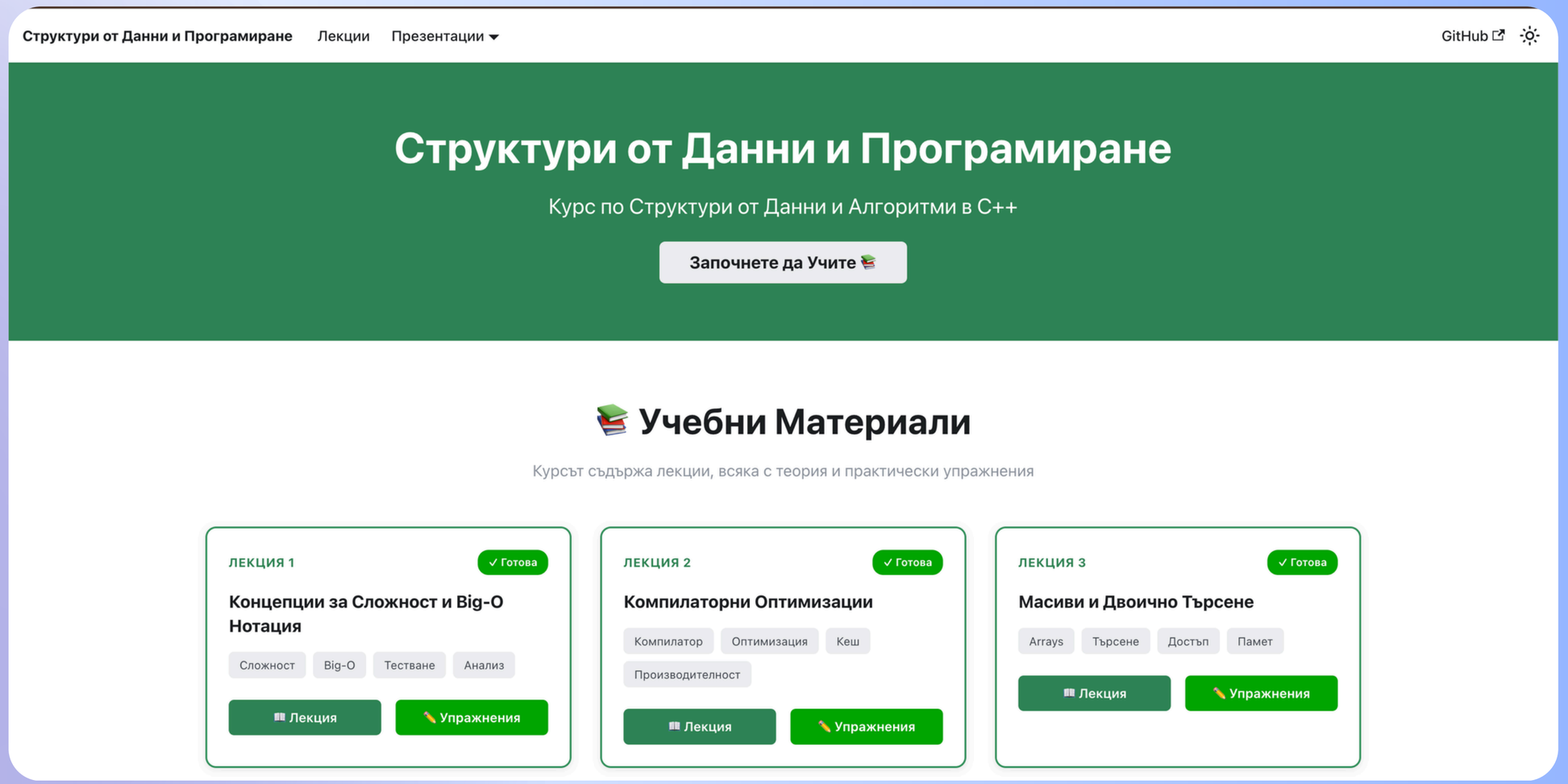
DEV FEEDBACK BUDDY



DEV FEEDBACK BUDDY



STUDY BUDDY UI



STUDY BUDDY

Generate

ChatGPT

STUDY BUDDY

Search

Perplexity

Generate

ChatGPT

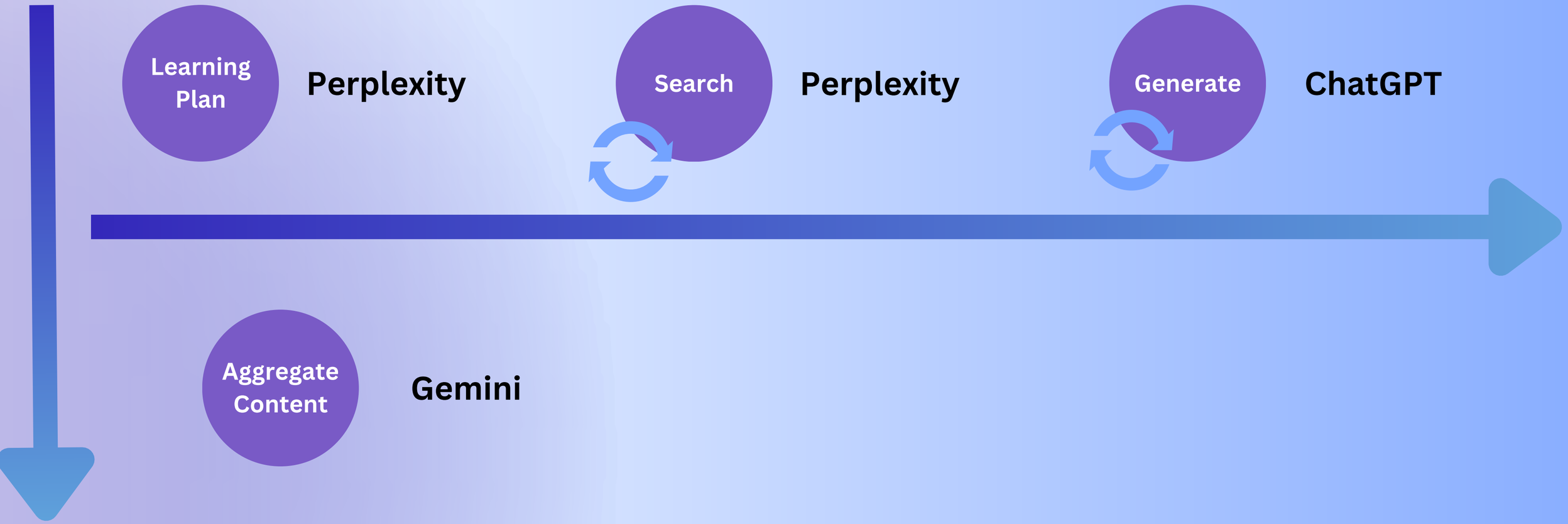
STUDY BUDDY

Learning Plan — Perplexity

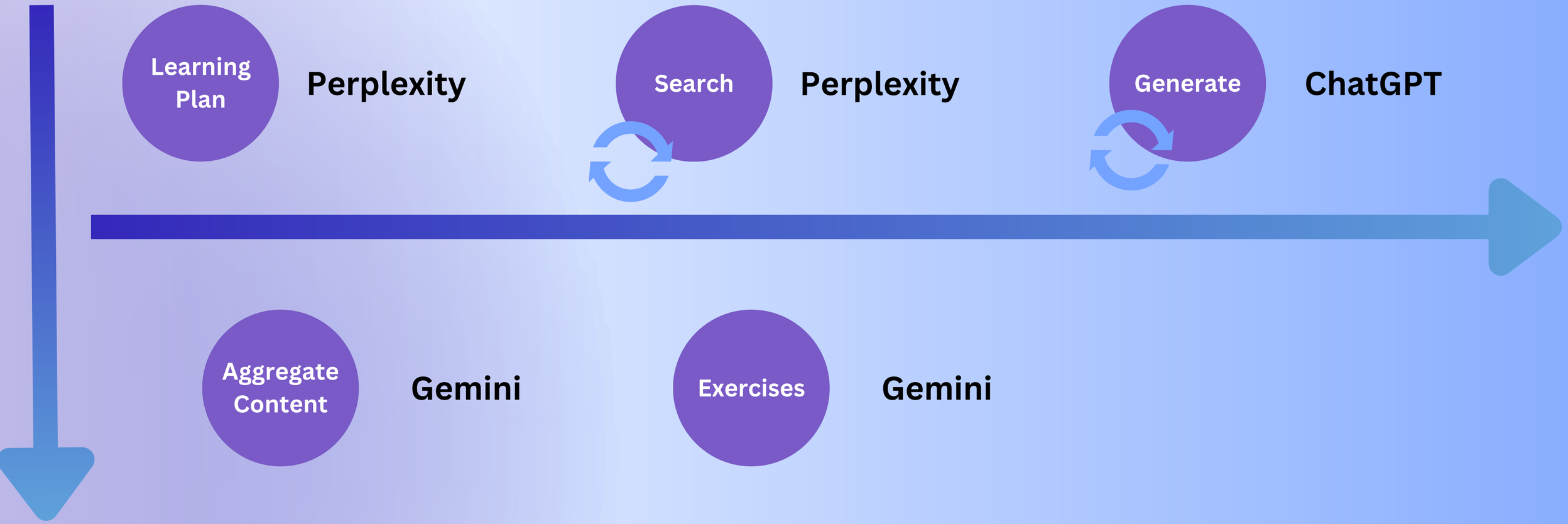
Search — Perplexity

Generate — ChatGPT

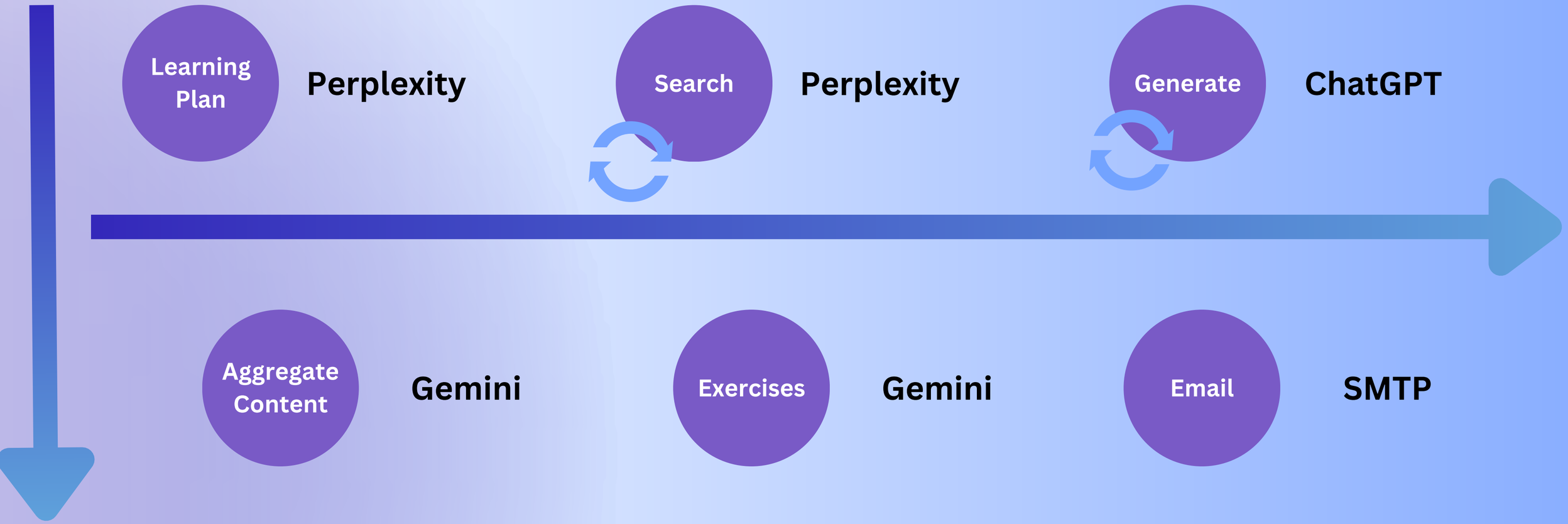
STUDY BUDDY


Learning Plan
Perplexity
Search
Perplexity
Generate
ChatGPT
Aggregate Content
Gemini

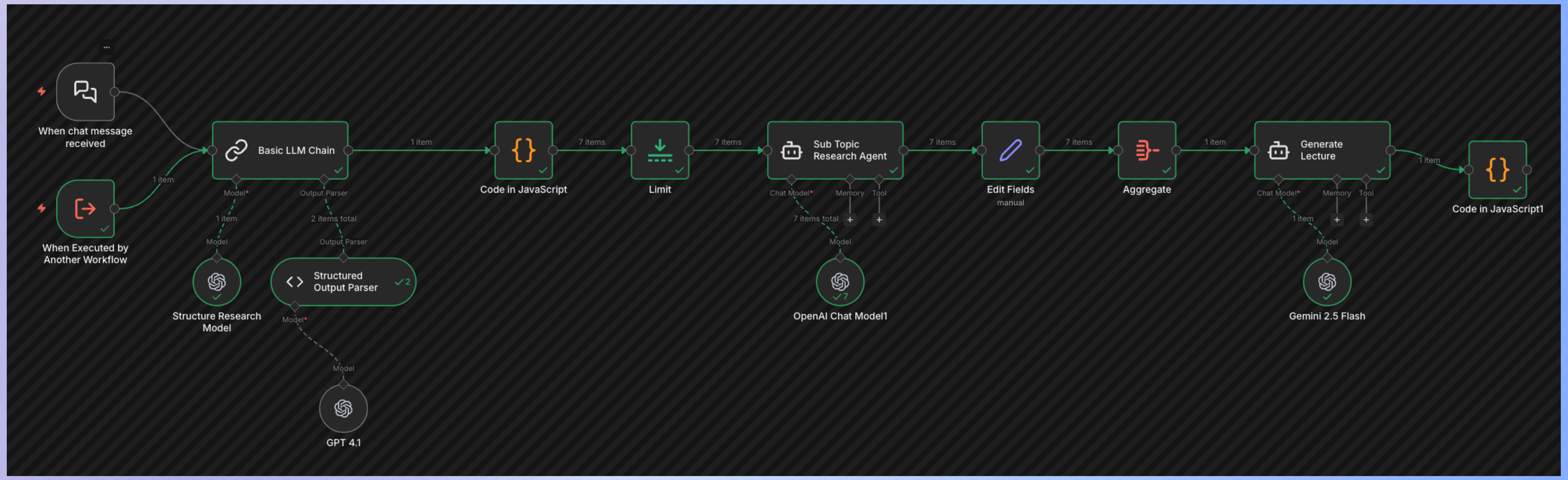
STUDY BUDDY


Learning Plan
Perplexity
Search
Perplexity
Generate
ChatGPT
Aggregate Content
Gemini
Exercises
Gemini

STUDY BUDDY


Learning Plan
Perplexity
Search
Perplexity
Generate
ChatGPT
Aggregate Content
Gemini
Exercises
Gemini
Email
SMTP

STUDY BUDDY N8N



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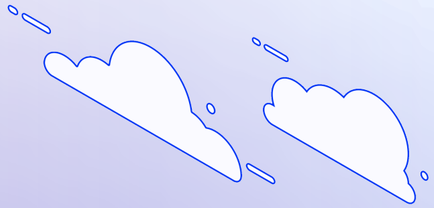
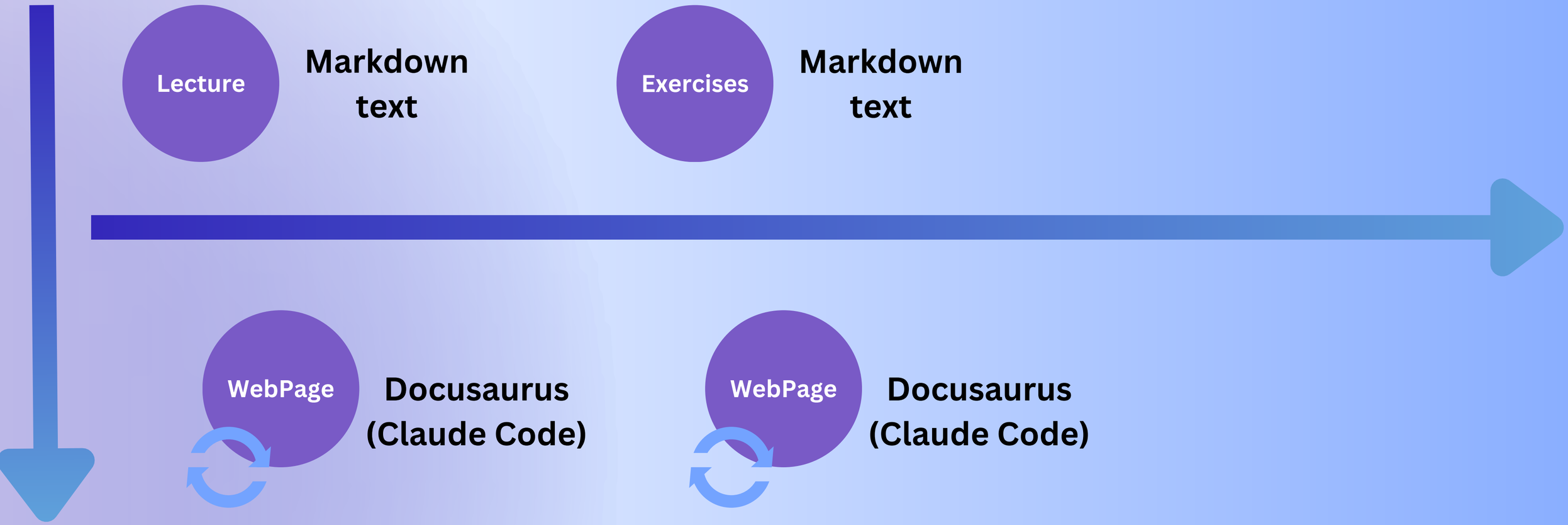
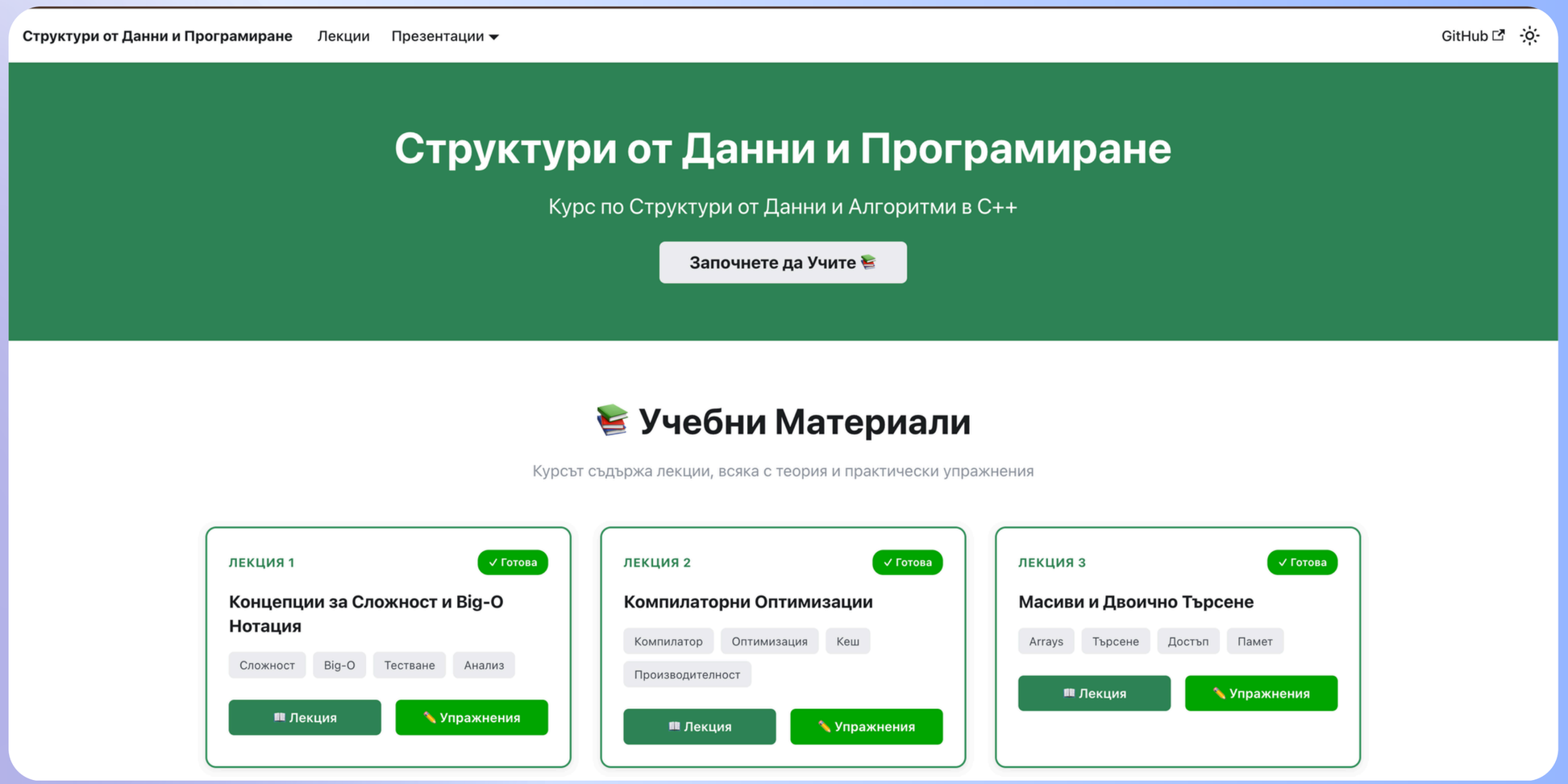




STUDY BUDDY UI



STUDY BUDDY UI

🎯 Учебни Цели

След края на тази лекция вие ще можете да:

- Разберете изчислителната сложност и нейното значение
- Обяснете Big-O нотацията и различните класове сложност
- Прилагате добри стратегии за тестване на алгоритми
- Разпознавате и обработвате NaN, Inf и signed zeros в C++ код с double precision

```
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    "Обяснете Big-O нотацията и различните класове сложност",
    "Прилагате добри стратегии за тестване на алгоритми",
    "Разпознавате и обработвате NaN, Inf и signed zeros в C++ код
    ]
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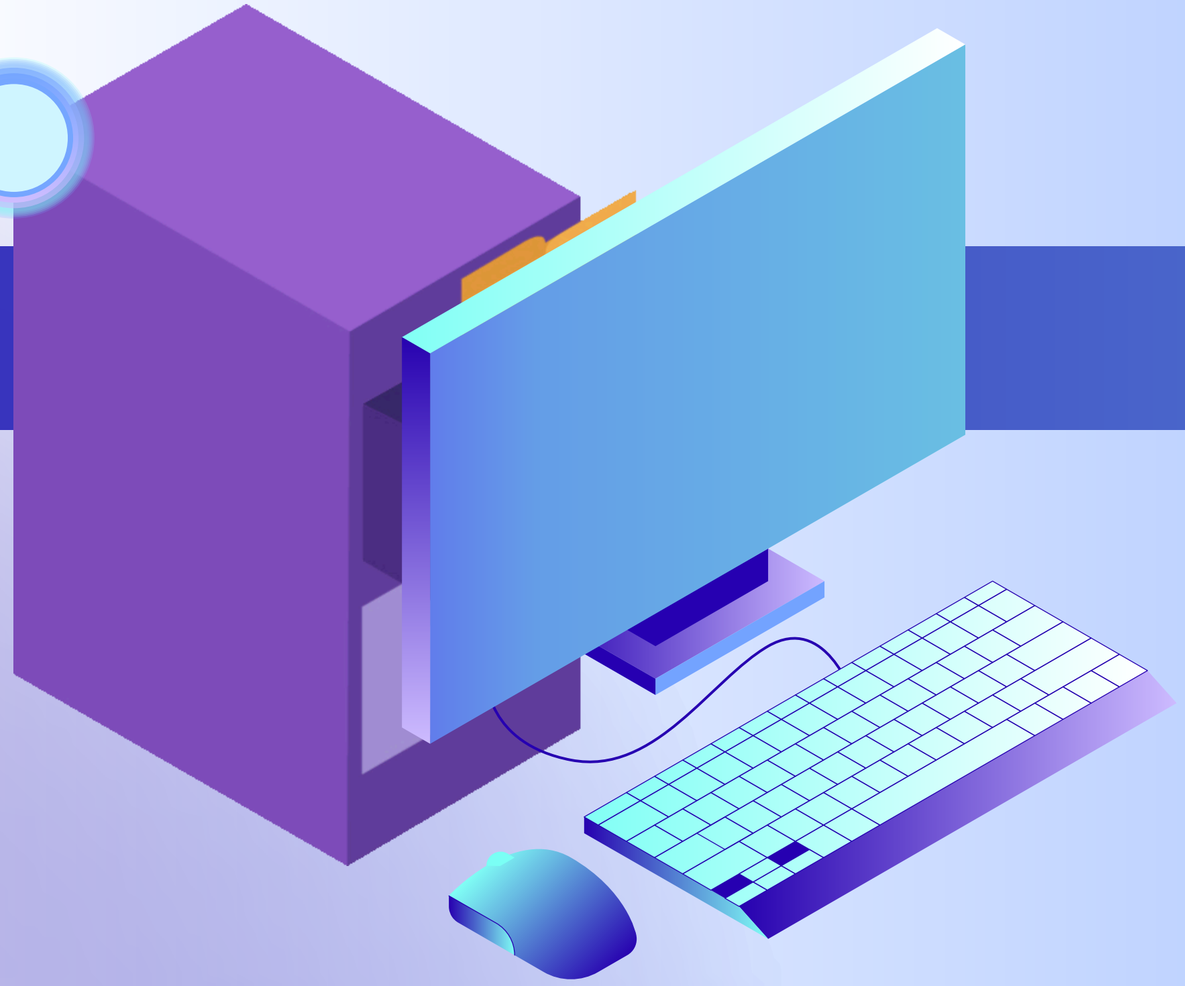

WILL AI TAKE MY JOB

- **AI moves fast**, and roles can fade quickly.
- **Learn to guide and use AI tools** stay valuable
- **You can do more in less time** and keep growing.

THANK YOU!

https://www.linkedin.com/in/aleksandar-aytov

https://alexaytov.github.io/my-portfolio

aleksandar.aytov@sap.com