



StudyMate – AI-Powered Academic Q&A Assistant

Making studying faster, contextual, and student-focused.

The Problem: Wasted Time & Lack of Context

Time-Consuming Search

Students waste valuable time digging through textbooks, lecture notes, and research papers.

Ineffective Keyword Search

Traditional keyword searches lack the necessary context for academic understanding.

Need for Grounded Answers

Academic success requires answers strictly from given notes or textbooks, not general web results.

Our Solution: StudyMate



AI-Powered Assistant

StudyMate provides instant, accurate answers by understanding the context of your academic materials.

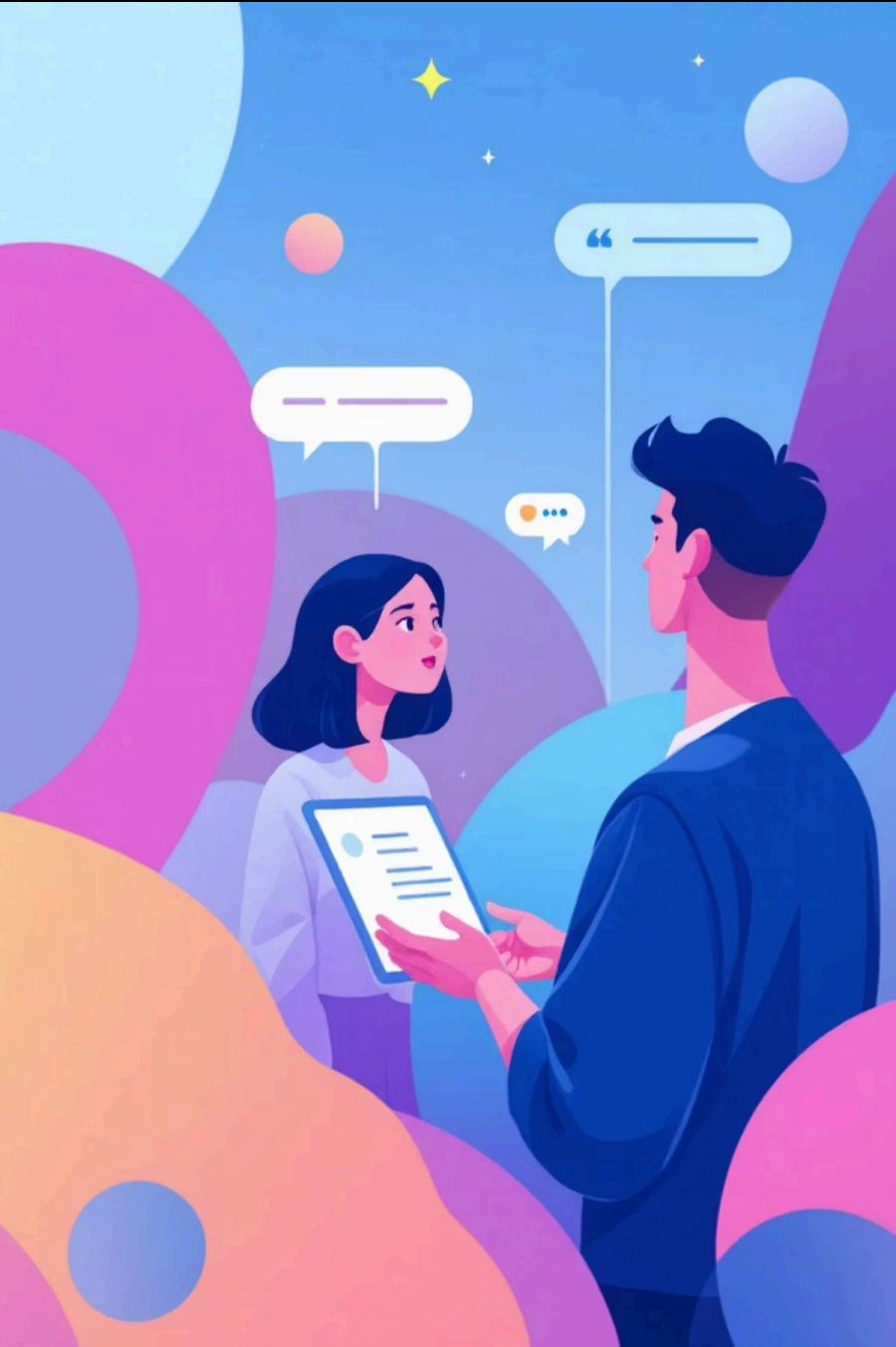
Effortless Uploads

Simply upload your academic materials –

including textbooks, lecture notes, research papers, and even past assignments – in various formats like PDFs, Word documents, or plain text files.

StudyMate

intelligently processes, indexes, and contextualizes this content, preparing it for sophisticated AI-powered Q&A without any manual tagging or organization required from your side. It transforms your raw study resources into an organized, searchable knowledge base.



Key Features: Conversational Q&A



Natural Language Interaction

Students ask questions in plain language, just like talking to a tutor.

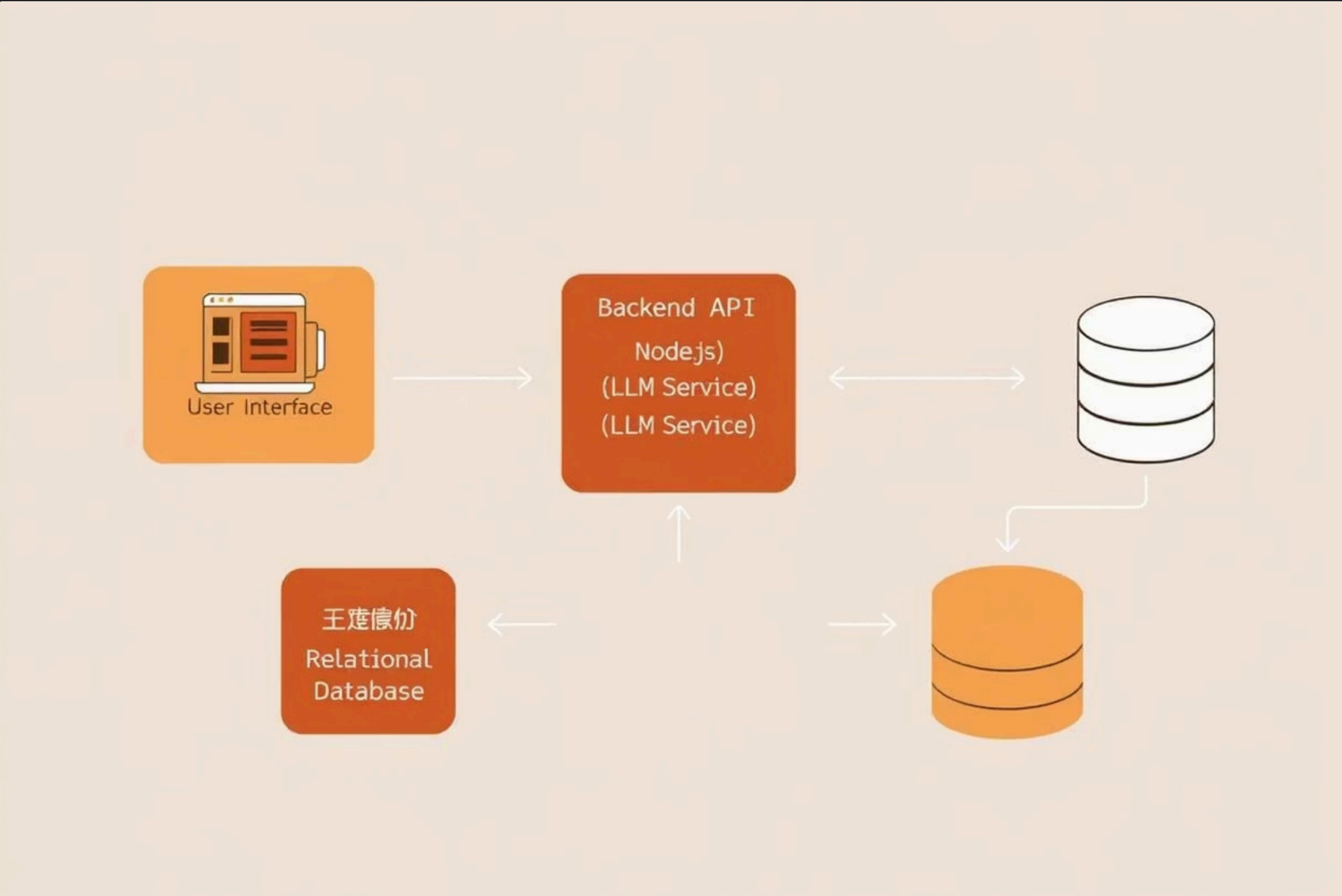


Grounded Answers

All responses are strictly based on the content of their uploaded materials, ensuring academic integrity.

StudyMate Architecture

Understanding the core components that power StudyMate's intelligent Q&A system, ensuring seamless interaction and accurate academic support.



Each component plays a crucial role in delivering a fast, accurate, and context-rich learning experience:

- 01

User Interface
(React.js)

The intuitive frontend where students upload materials, ask questions, and receive AI-powered answers.
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Backend API
(Node.js)

The central hub managing user requests, orchestrating communication between the UI, LLM service, and database.
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LLM Service
(Python + Flask)

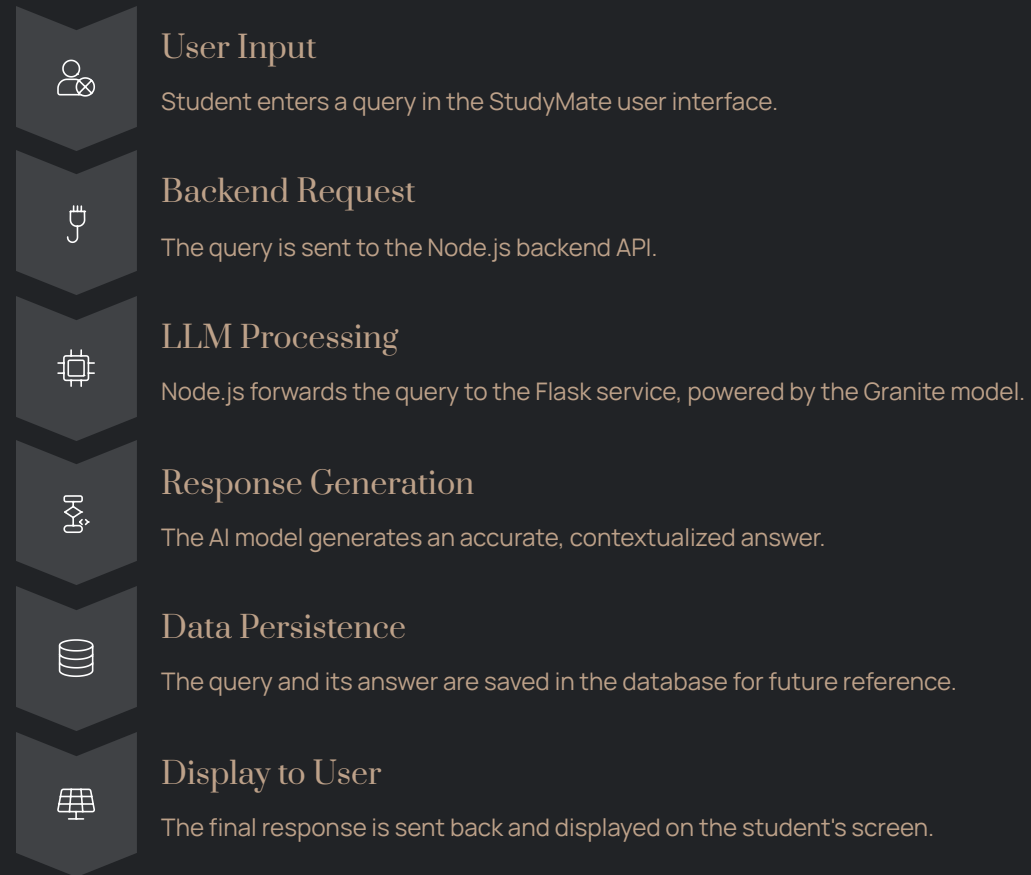
Leverages the powerful **IBM Granite 3.0** model to process academic content, understand queries, and generate accurate, context-aware responses.
- 04

Database

Securely stores uploaded user materials, conversation history, and user preferences, ensuring continuity and personalized learning experiences.

How Data Moves

Follow the journey of a student's query through the StudyMate system, from input to intelligent answer retrieval:



The Future of Learning with StudyMate

StudyMate is not just a tool; it's a partner in your academic journey, constantly evolving to meet the demands of modern education.



Personalized Learning Paths

Tailoring content and questions to individual student needs and learning styles.



Collaborative Study Environments

Facilitating group study and knowledge sharing within a trusted academic framework.



Continuous AI Enhancement

Regular updates and model improvements to deliver even more precise and insightful assistance.



Key Features: Data Processing & Retrieval



Accurate Text Extraction

Handles diverse formats (PDFs, DOCs, images), ensuring precise content organization for effective learning.



Semantic Search

Utilizes vector indexing (FAISS) for meaning-based information retrieval, ensuring StudyMate understands the context of your questions.

Key Features: AI-Powered Answer Generation

Powered by Cutting-Edge AI

StudyMate harnesses the incredible power of the **ibm-granite/granite-3.0-3b-a800m-instruct** AI model - the most advanced language understanding system in the world.

This state-of-the-art AI ensures your study materials are mined for **highly accurate and contextually relevant answers**, elevating your understanding to new heights.



Why StudyMate Works: Efficiency & Accuracy



Speeds Up Learning

StudyMate eliminates wasted time flipping through hundreds of pages, getting you to answers faster and optimizing your study sessions.

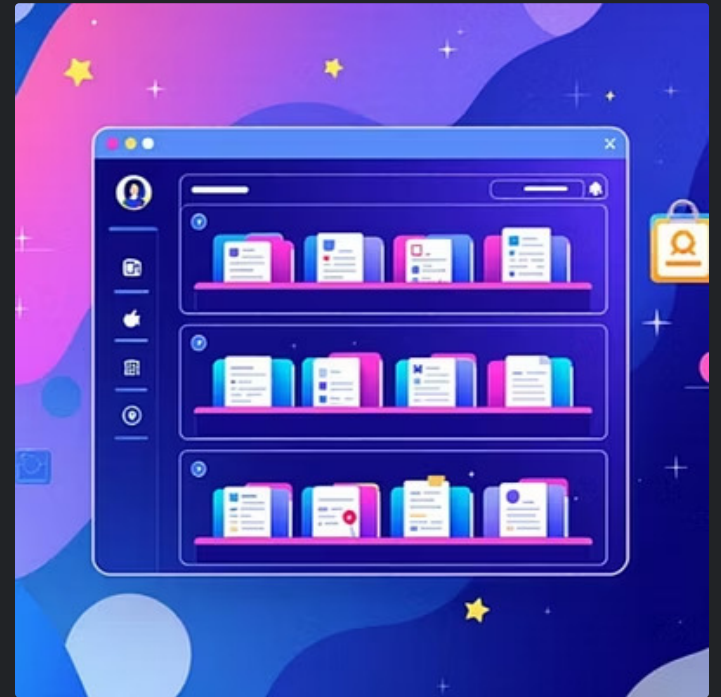
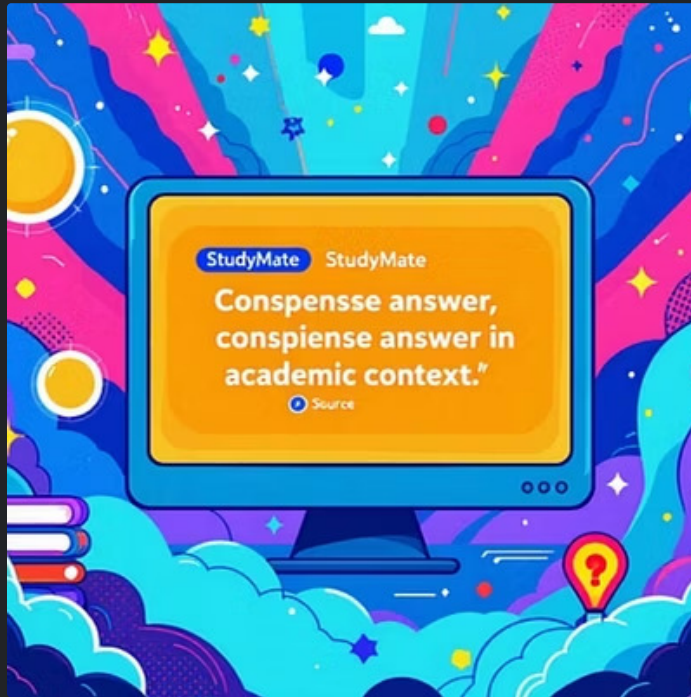


Grounded Answers

Every response is directly linked to your uploaded materials, ensuring reliability and helping you build a strong foundation of knowledge.

StudyMate in Action

See how StudyMate transforms your study sessions into efficient, productive learning experiences:



These visuals demonstrate the intuitive interface and seamless interaction of StudyMate, designed to enhance your academic journey.



Study Smarter, Not Harder
with StudyMate.

Your Academic
Success,
Accelerated.