

The background is a dark blue gradient with a complex pattern of glowing blue circuit lines and dots, creating a high-tech, digital feel.

10

REAL-WORLD

RAG

PROJECT IDEAS

1. Agri Crop Management Q&A

Problem: Farmers need quick and reliable information about crop management, pest control, and best practices without having to sift through lengthy documents.

What to Build: A question-answering system where farmers can ask natural language questions and receive concise, contextually relevant answers based on agricultural documents.

How it Works:

- User asks: "What are the common pests for cotton and how do I manage them?"
- System finds context: The system retrieves relevant snippets from documents discussing cotton pests and their management techniques.
- Final Answer: The LLM generates a summary of common cotton pests and suggests management strategies based on the retrieved information.

Use Cases: Farmers seeking immediate advice in the field, agricultural extension workers assisting farmers remotely.

2. Interactive Textbook Q&A

Problem: Students often struggle to find specific information or explanations within a textbook and might benefit from a more interactive way to engage with the material.

What to Build: A system that allows users to ask questions about the content of a digital textbook and receive answers directly grounded in the textbook's text.

How it Works:

- User asks: "Explain Newton's first law of motion with an example from this chapter."
- System finds context: The system retrieves the section of the textbook explaining Newton's first law and any examples provided within that section.
- Final Answer: The LLM provides the explanation of Newton's first law, possibly including an example found in the retrieved text.

Use Cases: Students looking for quick clarifications, self-study, test preparation.

3. Teacher's Lesson Plan Generator

Problem: Teachers need to efficiently create lesson plans that align with specific topics in a textbook they are using.

What to Build: A tool that allows teachers to input a textbook and then ask for a lesson plan focused on particular sections or topics.

How it Works:

- Teacher asks: "Create a lesson plan for Chapter 3, focusing on the causes and impacts of the Civil War."
- System finds context: The system retrieves the relevant sections of Chapter 3 that discuss the causes and impacts of the Civil War.
- Final Answer: The LLM generates a potential lesson plan outline, possibly including learning objectives, key discussion points, and activities related to the retrieved content.

Use Cases: Teachers preparing daily or weekly lesson plans, especially when needing to focus on specific textbook content.

4. Enterprise Document Assistant

Problem: Employees often struggle to find specific information within a large volume of internal company documents, leading to lost time and reduced efficiency.

What to Build: An internal Q&A system where employees can ask natural language questions to get answers derived from the company's documents.

How it Works:

- User asks: "What is the policy on paid time off?"
- System finds context: The system retrieves the relevant sections from the HR policy document that discuss paid time off.
- Final Answer: The LLM provides a summary of the paid time off policy based on the retrieved information.

Use Cases: HR support, IT helpdesk, accessing compliance information, finding standard operating procedures.

5. Academic Research Companion

Problem: Researchers need to efficiently extract information and synthesize findings from a large number of academic papers.

What to Build: A system that allows researchers to ask questions about a collection of academic papers and receive answers or syntheses grounded in the content of those papers.

How it Works:

- User asks: "What are the recent trends in using deep learning for medical image analysis?"
- System finds context: The system retrieves relevant sections from recent research papers on deep learning in medical imaging.
- Final Answer: The LLM summarizes the recent trends and findings based on the retrieved information from the academic papers.

Use Cases: Literature reviews, understanding the state-of-the-art in a field, identifying relevant research.

6. Rural Scheme Advisor

Problem: Villagers often lack easy access to information about government schemes and how to apply for them.

What to Build: A system where users can ask questions in natural language about government schemes and receive clear, step-by-step guidance based on official scheme documents.

How it Works:

- User asks: "How do I apply for the PM-KISAN scheme?"
- System finds context: The system retrieves the sections from the PM-KISAN scheme guidelines that detail the application process.
- Final Answer: The LLM provides a step-by-step explanation of how to apply for the PM-KISAN scheme, based on the official documentation.

Use Cases: Providing information about government schemes to rural populations, assisting with the application process.

7. Native Language Health Advisory System

Problem: During pandemics, disease outbreaks, or health emergencies, people in rural areas need immediate access to health information and precautions in their native language, especially for diseases like malaria, dengue, and viral infections.

What to Build: A multilingual RAG system that provides health guidance, symptoms identification, and prevention measures in local languages based on official health documents and WHO guidelines.

How it Works:

- User asks in Telugu: “డెంగ్యూ వ్యాధికి లక్షణాలు ఏమిటి మరియు ఎలా కాపాడుకోవాలి?” (What are dengue symptoms and how to prevent it?)
- System finds context: Retrieves relevant information from health ministry documents, WHO guidelines, and medical literature about dengue fever.
- Final Answer: Provides symptoms, prevention methods, and when to seek medical help in the user's native language.

Use Cases: Rural health workers, community health programs, pandemic response, seasonal disease prevention campaigns.

8. Legal Document Navigator

Problem: Small business owners and individuals struggle to understand complex legal documents, contracts, and regulations without expensive legal consultation.

What to Build: A system that helps users understand legal documents by answering questions about contracts, terms of service, employment agreements, and regulatory compliance.

How it Works:

- User asks: "What are my obligations under this employment contract regarding non-disclosure?"
- System finds context: Retrieves relevant clauses from the employment contract related to confidentiality and non-disclosure agreements.
- Final Answer: Explains the specific obligations, restrictions, and potential consequences in plain language.

Use Cases: Small business compliance, contract review, tenant rights, employment law guidance.

9. Business Registration and Startup Guide

Problem: Aspiring entrepreneurs struggle with the complex process of starting different types of businesses – from understanding legal requirements, registration procedures, tax obligations, licensing, to compliance requirements. Many small business ideas never materialize due to bureaucratic confusion and lack of clear guidance.

What to Build: A comprehensive RAG system that guides users through the entire process of starting various types of businesses, from sole proprietorships to corporations, including all registration, licensing, and compliance requirements.

How it Works:

- User asks: "I want to start a food truck business in Hyderabad. What are all the licenses and registrations I need?"
- System finds context: Retrieves information from government regulatory documents, business registration guidelines, food safety regulations, and local municipal requirements.
- Final Answer: Provides a complete checklist including FSSAI license, GST registration, trade license, vehicle registration, health permits, fire safety clearance, and step-by-step application procedures with required documents.

Use Cases: Small business compliance, contract review, tenant rights, employment law guidance.

10. Construction and Building Code Advisor

Problem: Property owners, contractors, and builders face complex building codes, permit requirements, and construction regulations that vary by location. Violations can result in costly delays, fines, or unsafe structures. Many people struggle to understand what permits they need for home renovations or new construction.


What to Build: A RAG system that provides clear guidance on building codes, permit requirements, construction standards, and approval processes based on local municipal regulations and national building codes.

How it Works:

- User asks: "I want to add a second floor to my house in Bangalore. What approvals do I need and what are the setback requirements?"
- System finds context: Retrieves relevant sections from BBMP building bylaws, Karnataka building codes, structural requirements, and approval procedures.
- Final Answer: Explains required approvals (building plan approval, structural stability certificate), setback rules, height restrictions, timeline for approvals, and documents needed for submission.

Use Cases: Homeowners planning renovations, small contractors, architects, real estate developers, building permit offices, construction compliance.



The logo for STATFUSION Ai. It features a blue and white stylized 'S' icon followed by the word 'STATFUSION' in a bold, blue, sans-serif font. To the right of 'STATFUSION' is a dark blue 'Ai' with a small blue head icon above the 'i'. The entire logo is flanked by two horizontal blue lines.
