Zoomed to fill

What is LangChain

29 January 2025 08:35

LangChain is an open source framework that helps in building LLM based applications. It provides modular components and end-to-end tools that help developers build complex AI applications, such as chatbots, question-answering systems, retrieval-augmented generation (RAG), autonomous agents, and more.

1. Supports all the major LLMs
2. Simplifies developing LLM based applications
3. Integrations available for all major tools
4. Open source/Free/Actively developed
5. Supports all major GenAI use cases

Curriculum Structure

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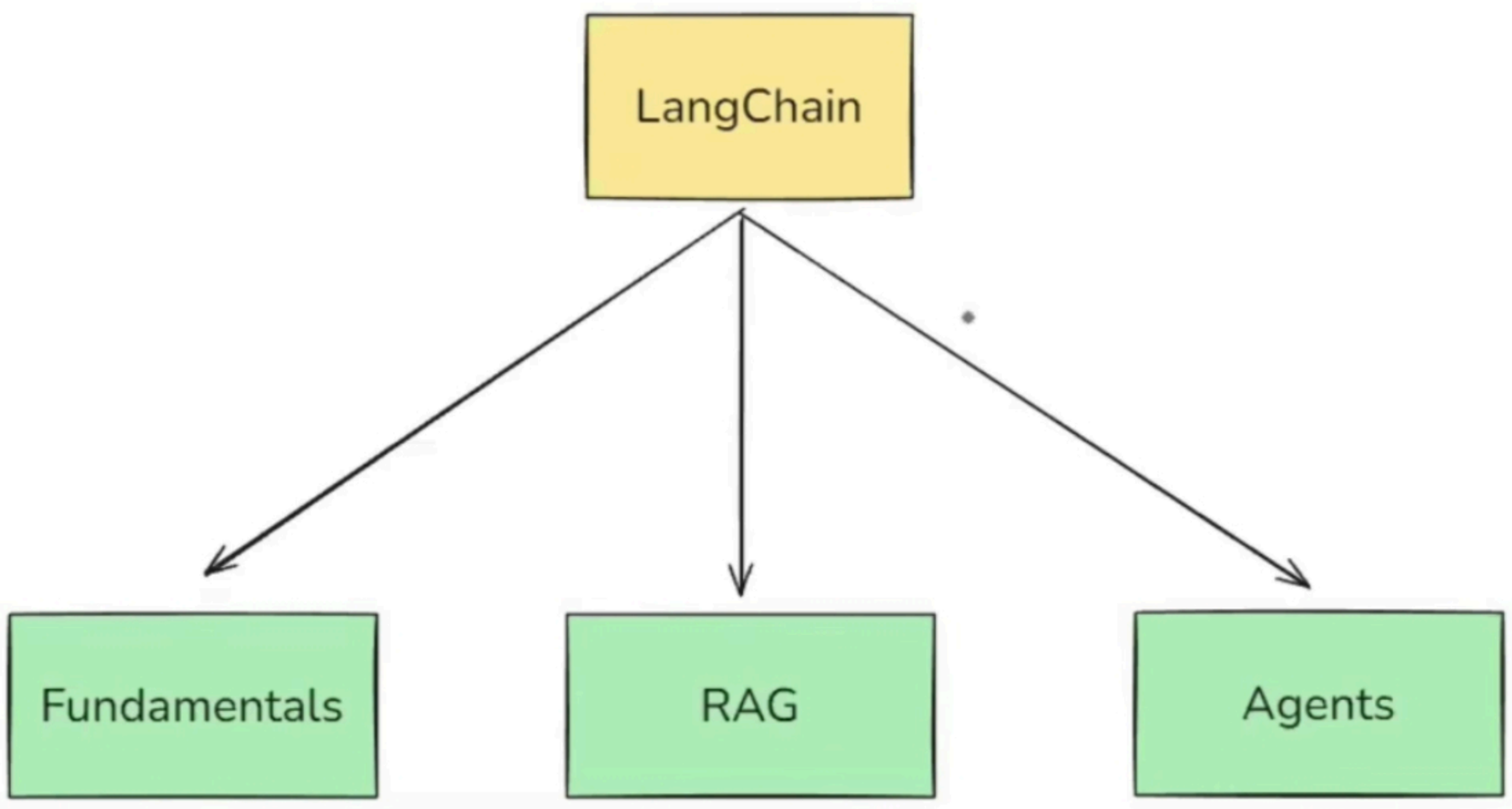

LangChain Roadmap

1. Fundamentals
    a. What is LangChain
    b. LangChain Components
    c. Models
    d. Prompts
    e. Parsing Output
    f. Runnables & LCEL
    g. Chains
    h. Memory
2. RAG
    a. Document Loaders
    b. Text Splitters
    c. Embeddings
    d. Vector Stores
    e. Retrievers
    f. Building a RAG application

My Focus

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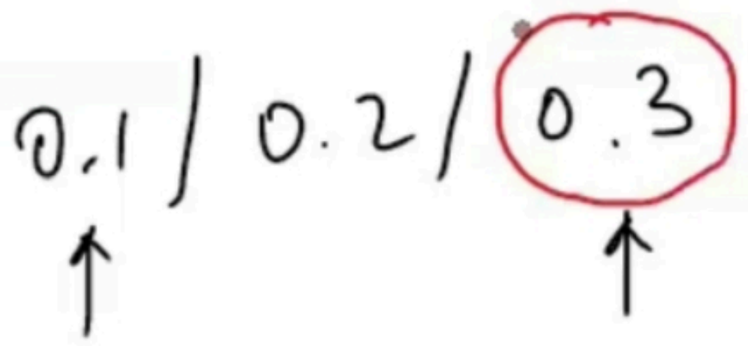
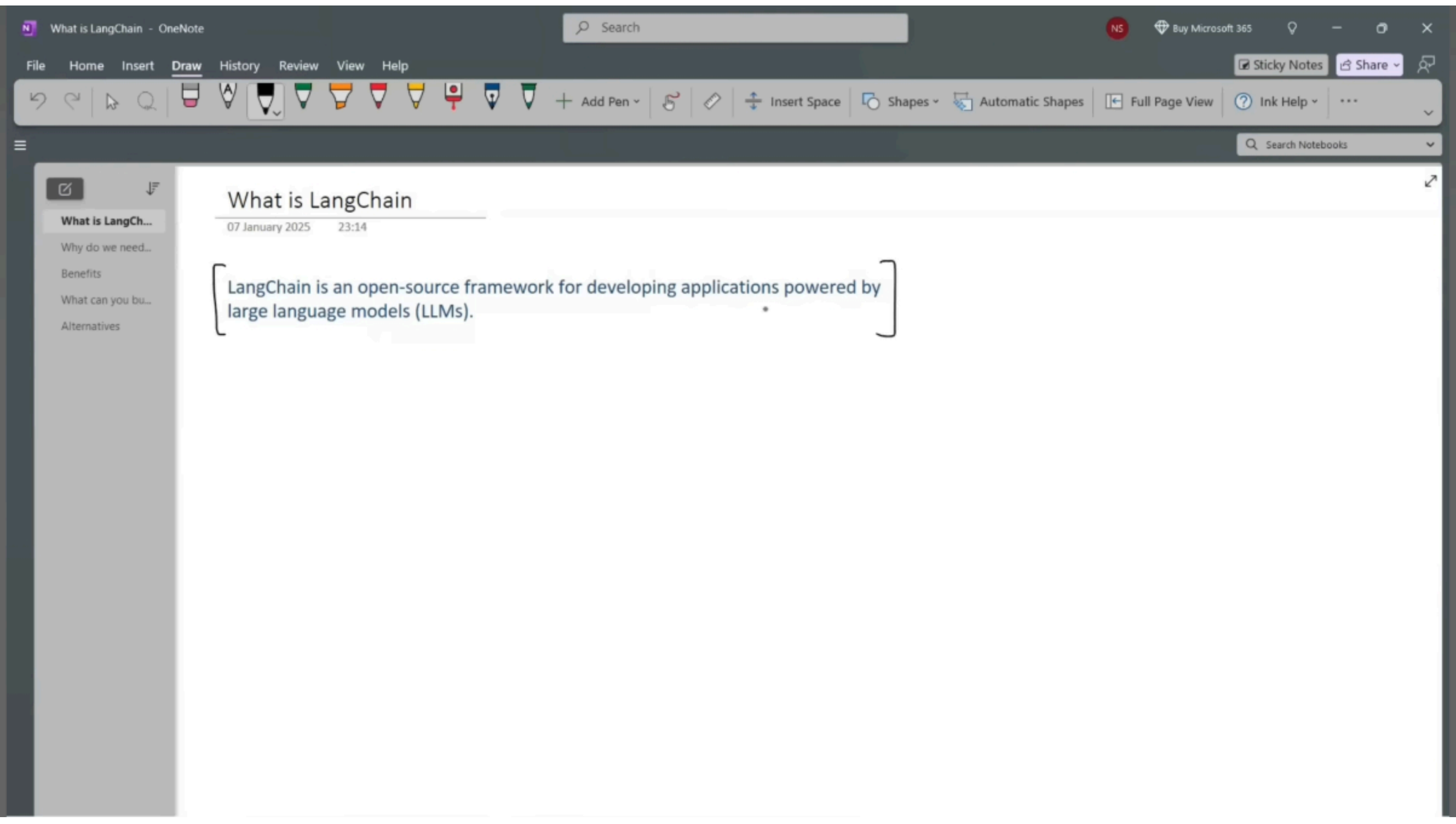


1. Updated information
2. Clarity
3. Conceptual understanding
4. The 80 percent approach


What is LangChain - OneNote
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Help
Sticky Notes
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Shapes
Automatic Shapes
Full Page View
Ink Help
Search Notebooks
What is LangCh...
Why do we need...
Benefits
What can you bu...
Alternatives
What is LangChain
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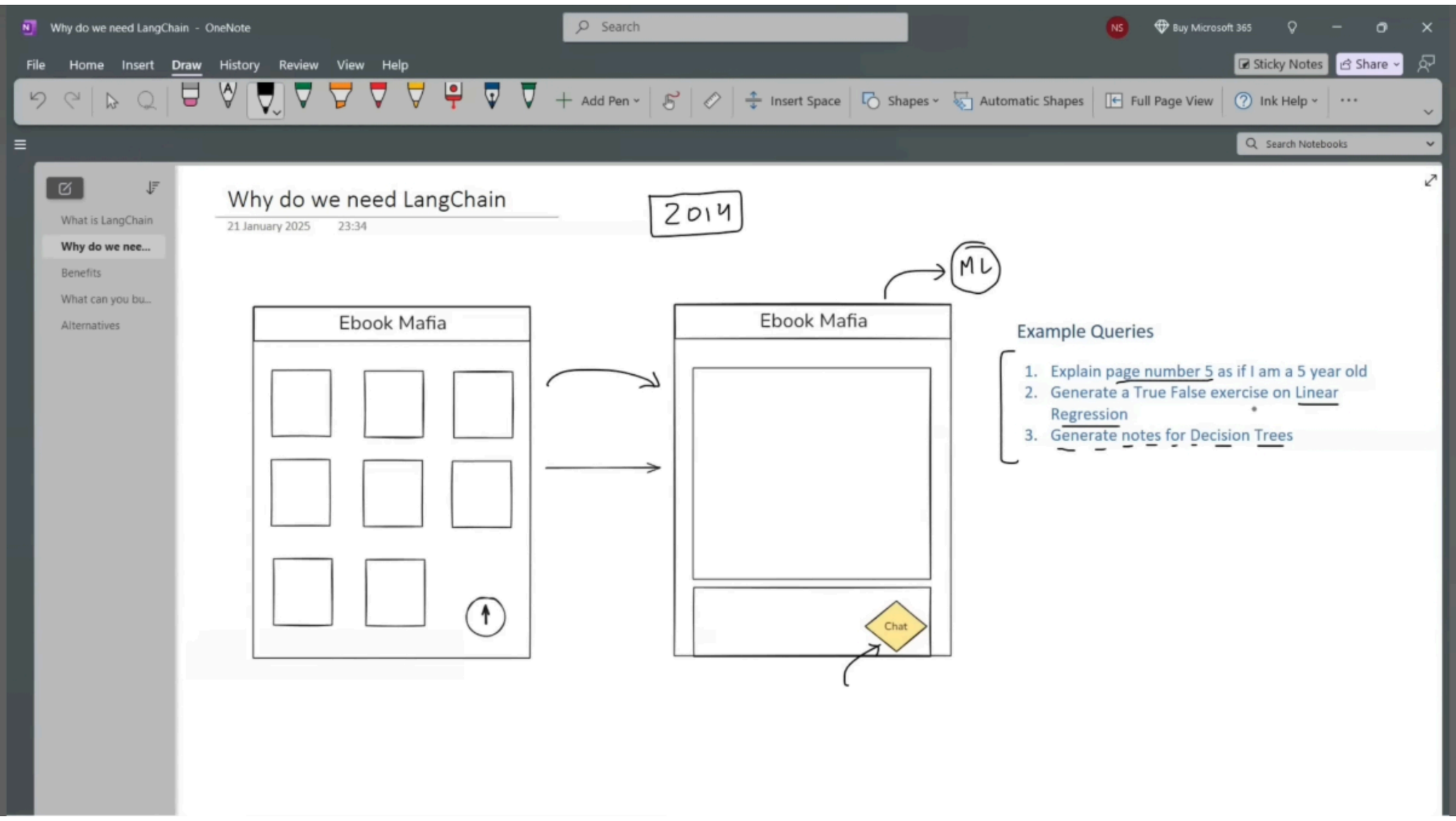
LangChain is an open-source framework for developing applications powered by large language models (LLMs).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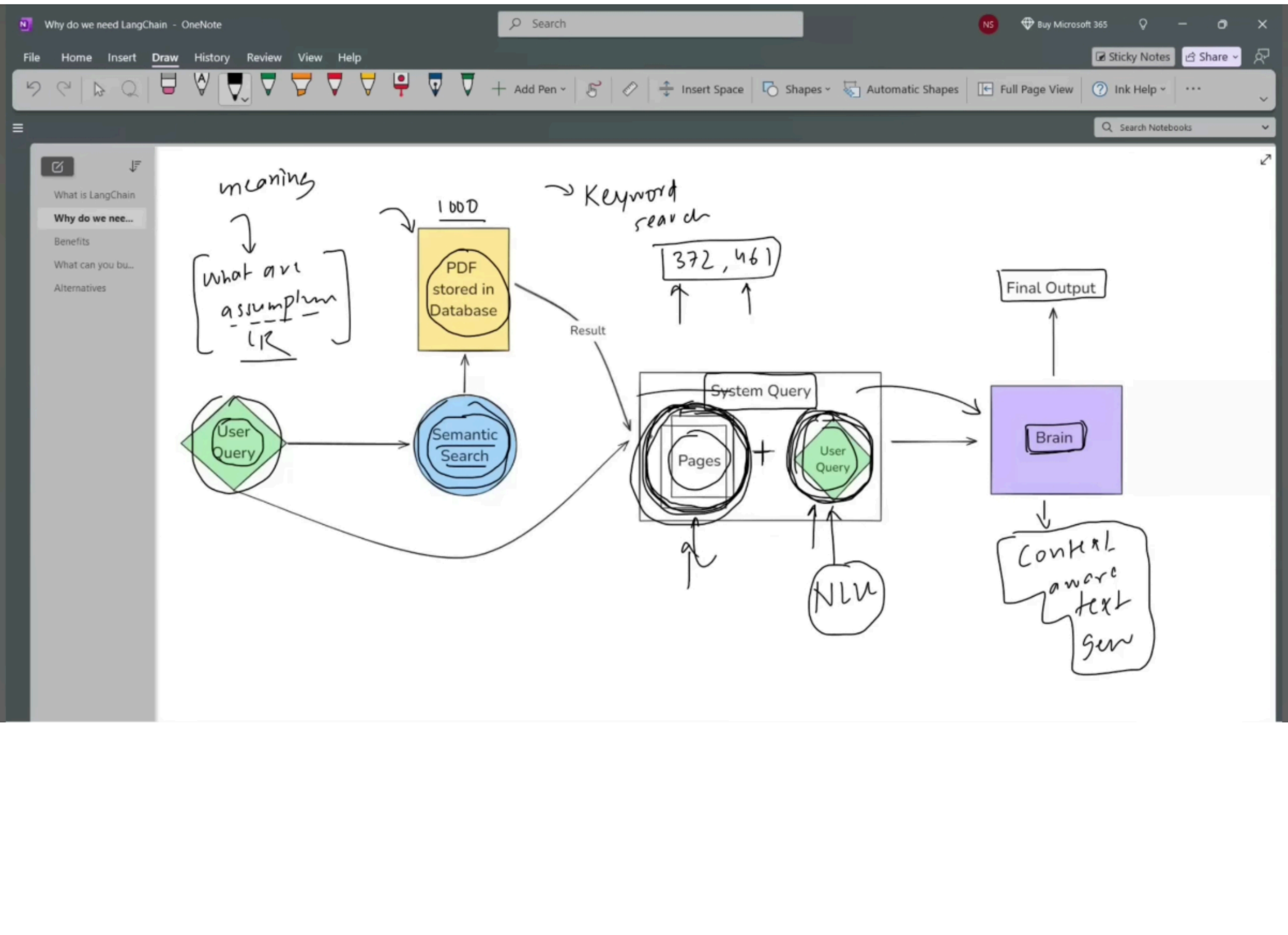
Alternatives
Why do we need LangChain
21 January 2025 23:34
2014
Ebook Mafia
ML
Ebook Mafia
Chat
Example Queries
1. Explain page number 5 as if I am a 5 year old
2. Generate a True False exercise on Linear Regression
3. Generate notes for Decision Trees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What is LangChain
Why do we nee...
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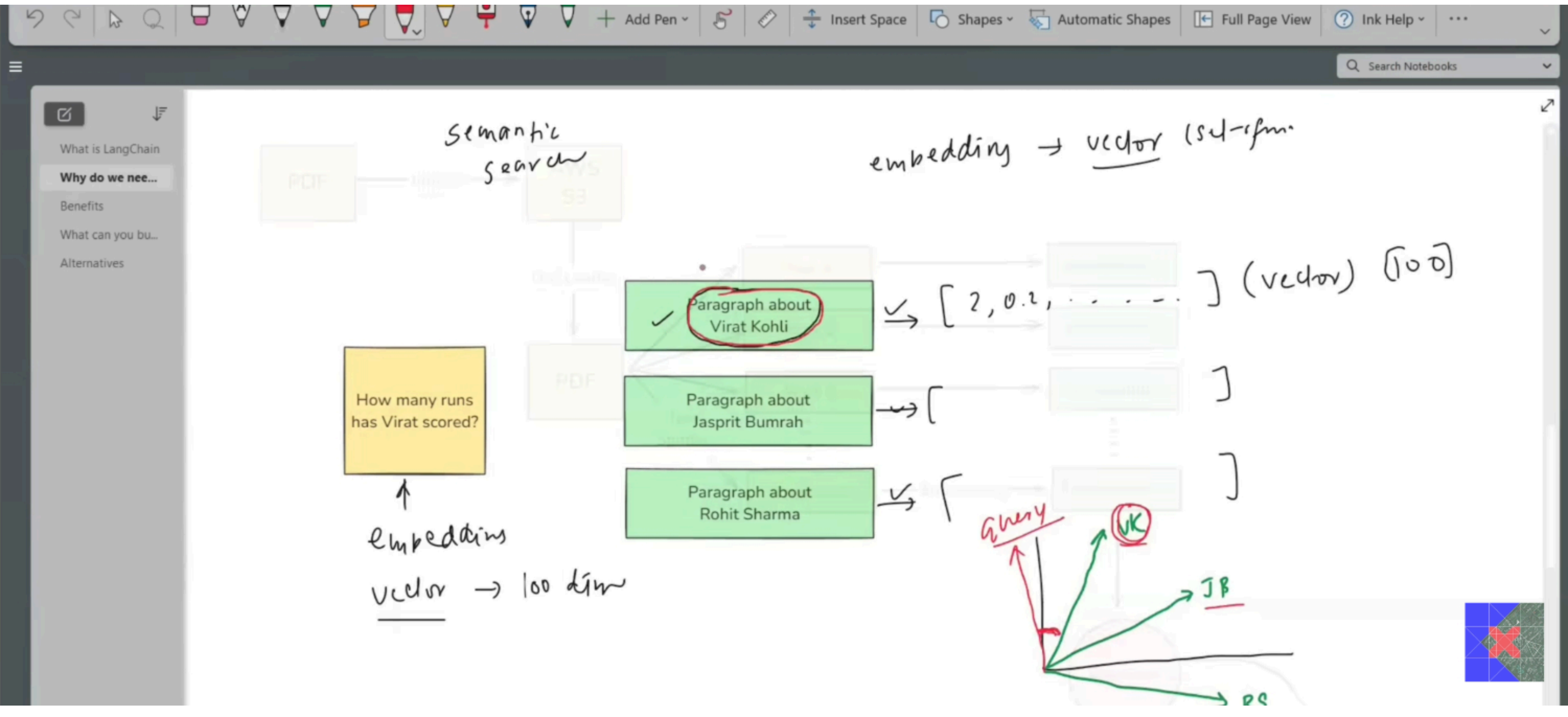
What can you bu...
Alternatives
meaning
what are assumptions LR
1 DOD
PDF stored in Database
Keyword search
372,461
Result
Final Output
System Query
User Query
Semantic Search
Pages
User Query
Brain
NLU
Context aware text gen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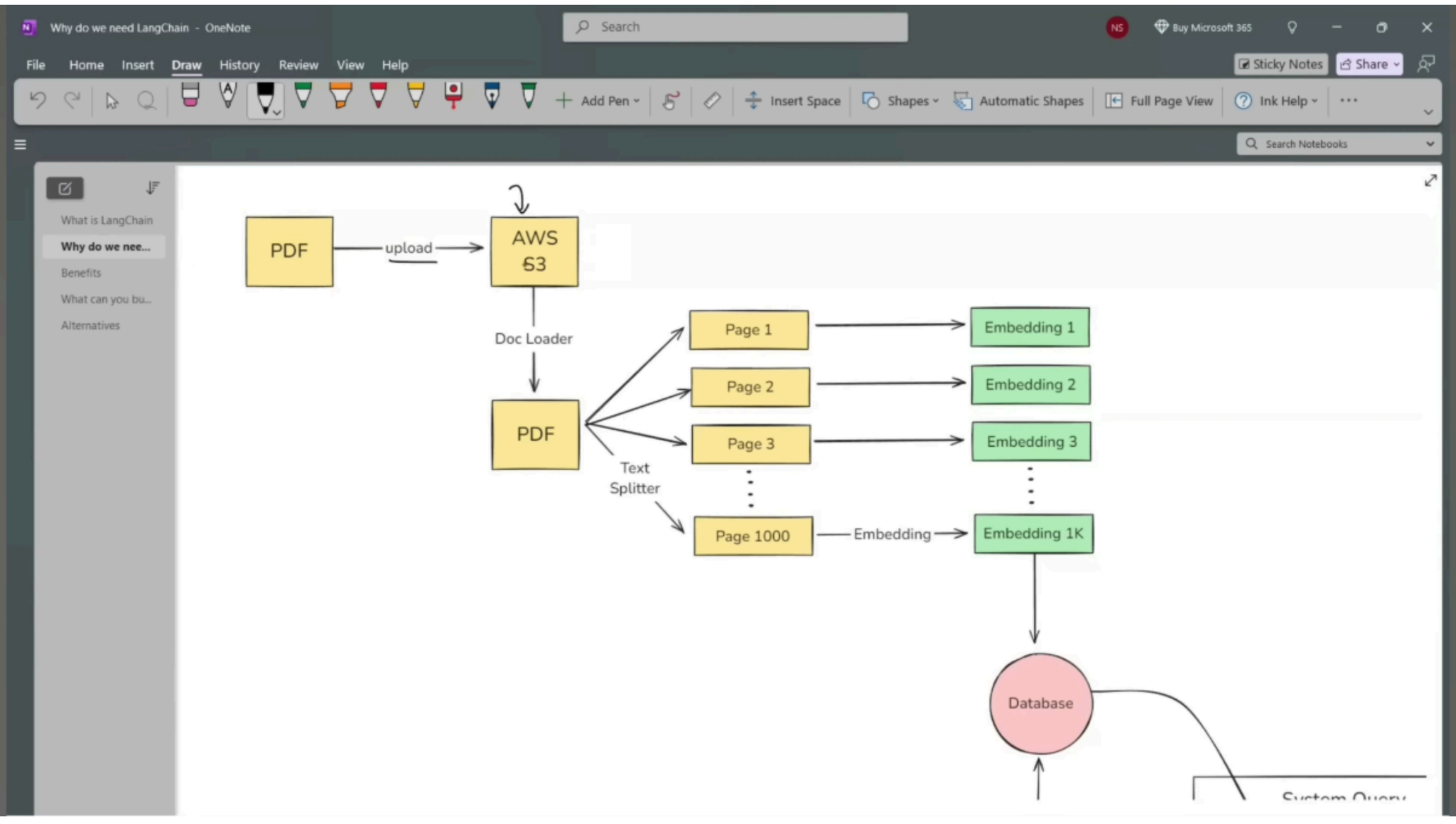
Alternatives
Semantic search
embedding → vector
PDF
S3
Paragraph about Virat Kohli
[2, 0.2, ...] (vector) [100]
Paragraph about Jasprit Bumrah
Paragraph about Rohit Sharma
How many runs has Virat scored?
embedding
vector → 100 dim
query
VK
JB
RS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AWS S3
Doc Loader
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Text Splitter
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Page 3
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Embedding
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Embedding 2
Embedding 3
Embedding 1K
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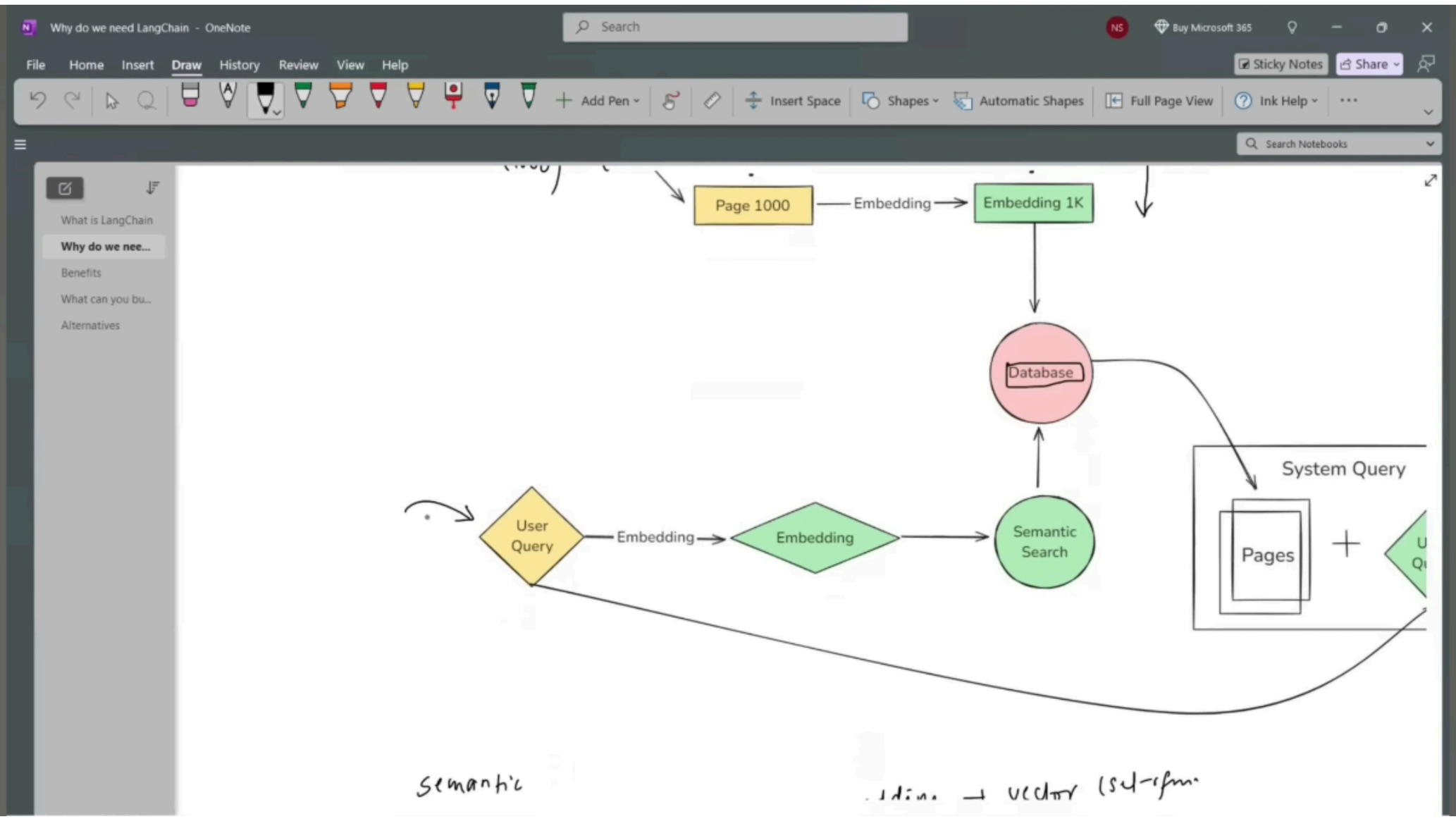
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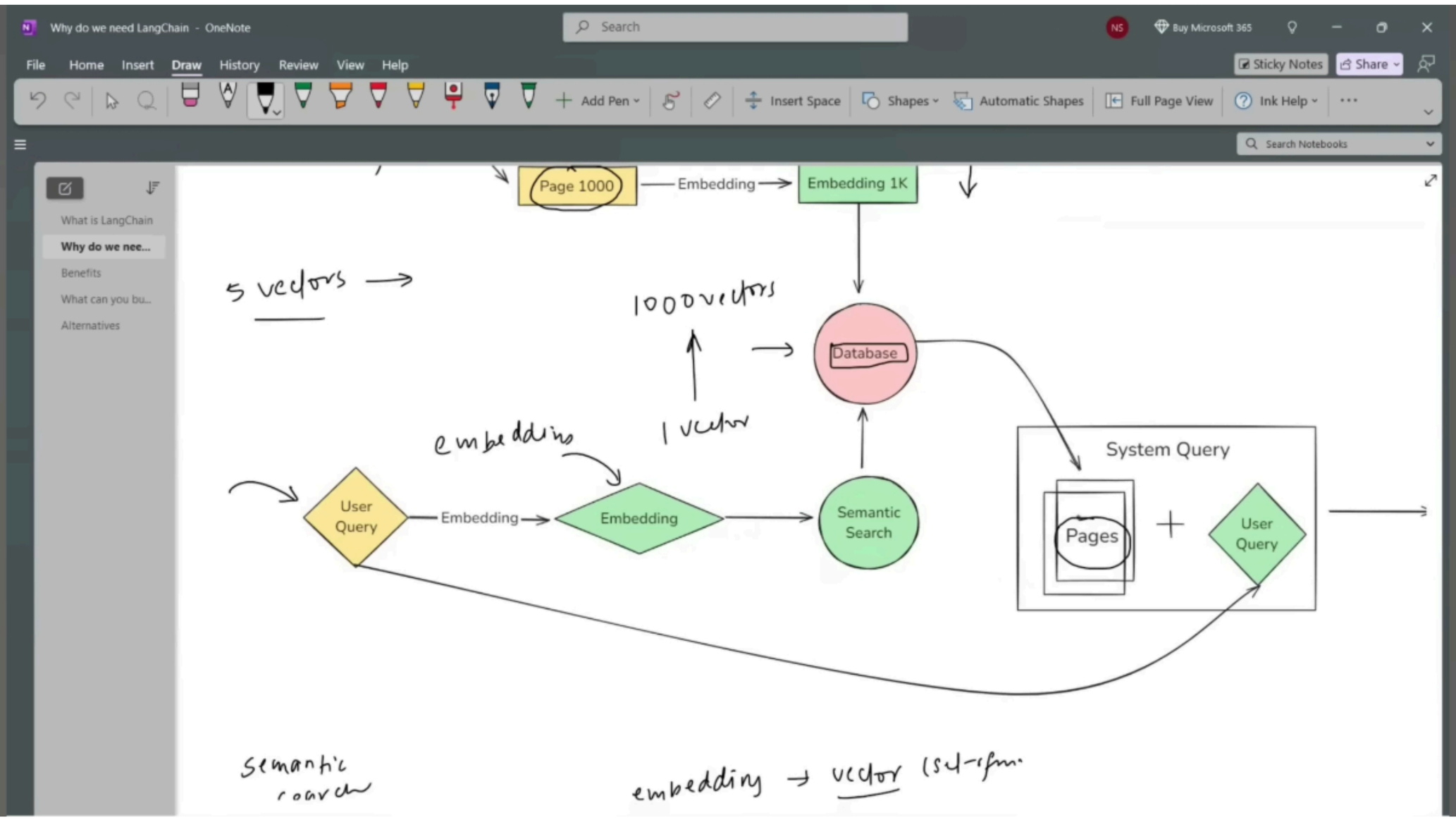
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System Query
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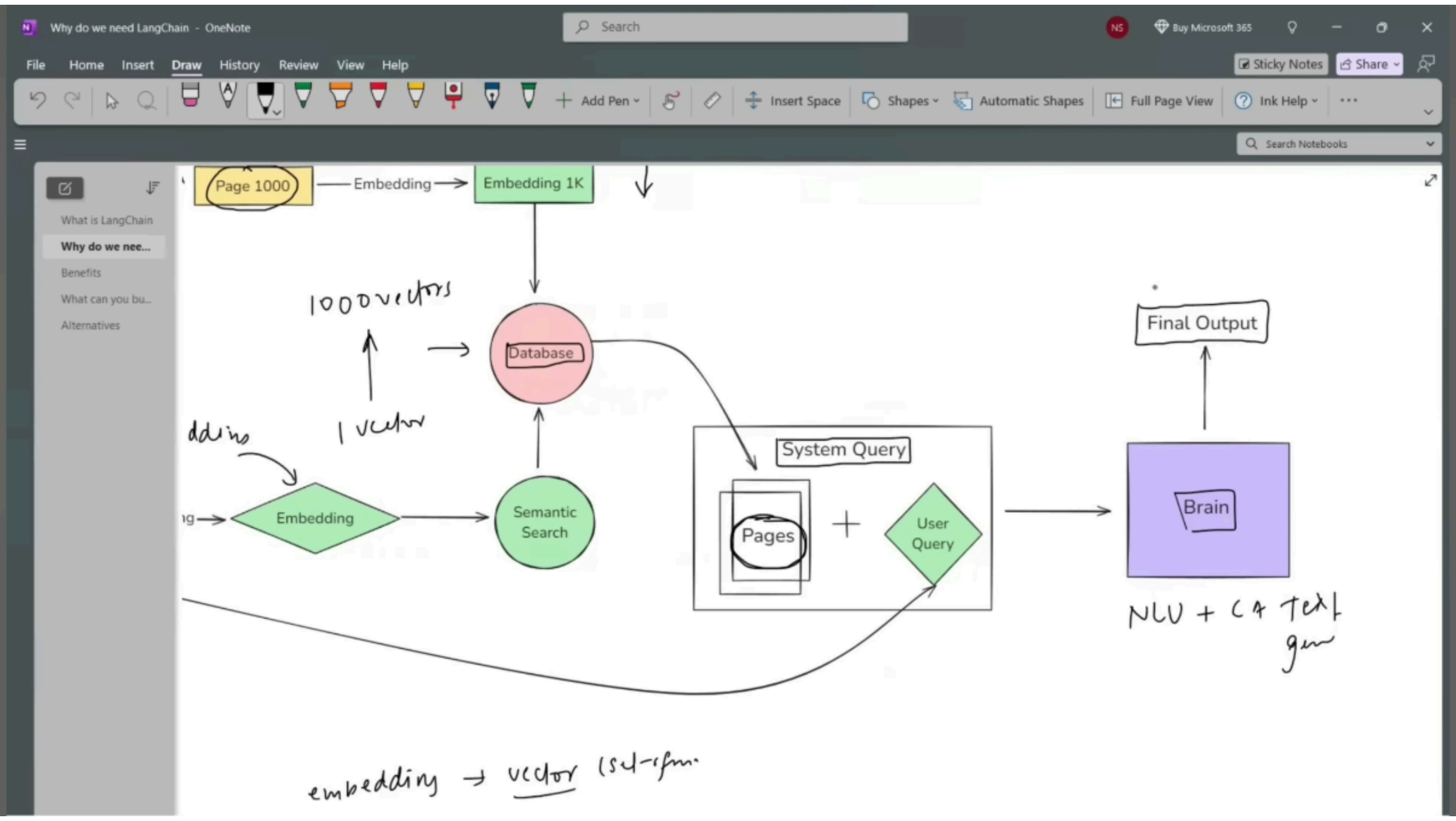
Semantic
embedding → vector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Final Output
Brain
NLU + GA Text gen
embedding → vector (set-of-fun