

HACKATHON IBM Granite

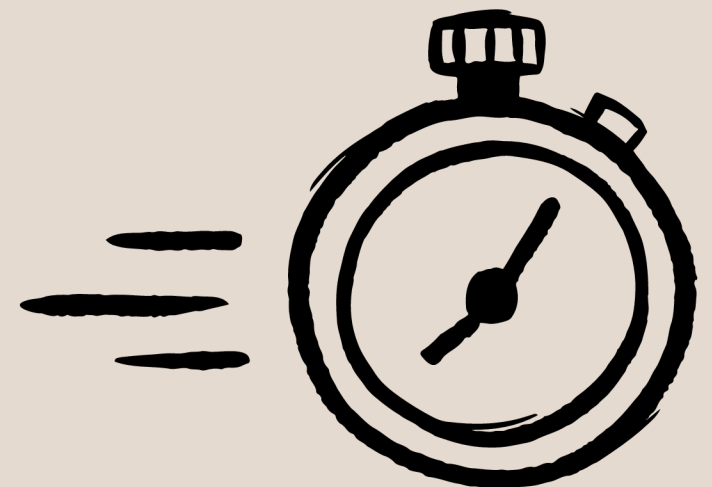
CodeMyth: A guild that builds



CODEMYTH

01

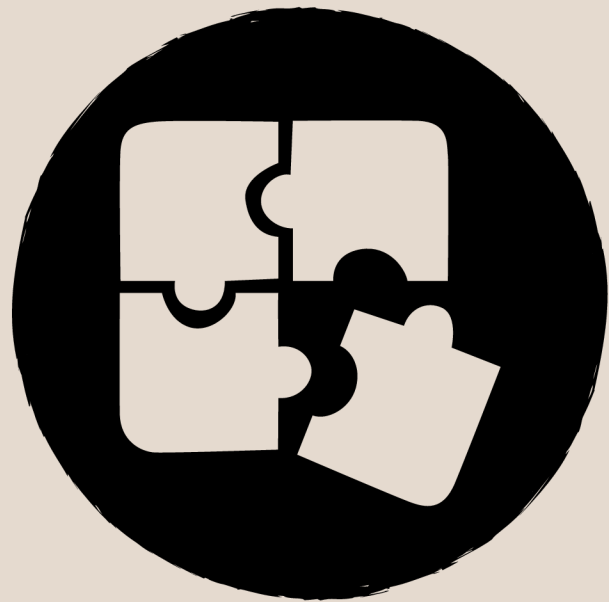
WE PRESENT BEFORE YOU :



"MAKING LIVES EASIER FOR DEVS"

DEVDOCS: DOCUMENTATION GENERATOR

PROBLEM STATEMENT



The Challenge of Keeping GitHub Documentation Up-to-Date

Writing and maintaining up-to-date documentation is often neglected because it's time-consuming, repetitive, and, let's face it—less exciting than coding

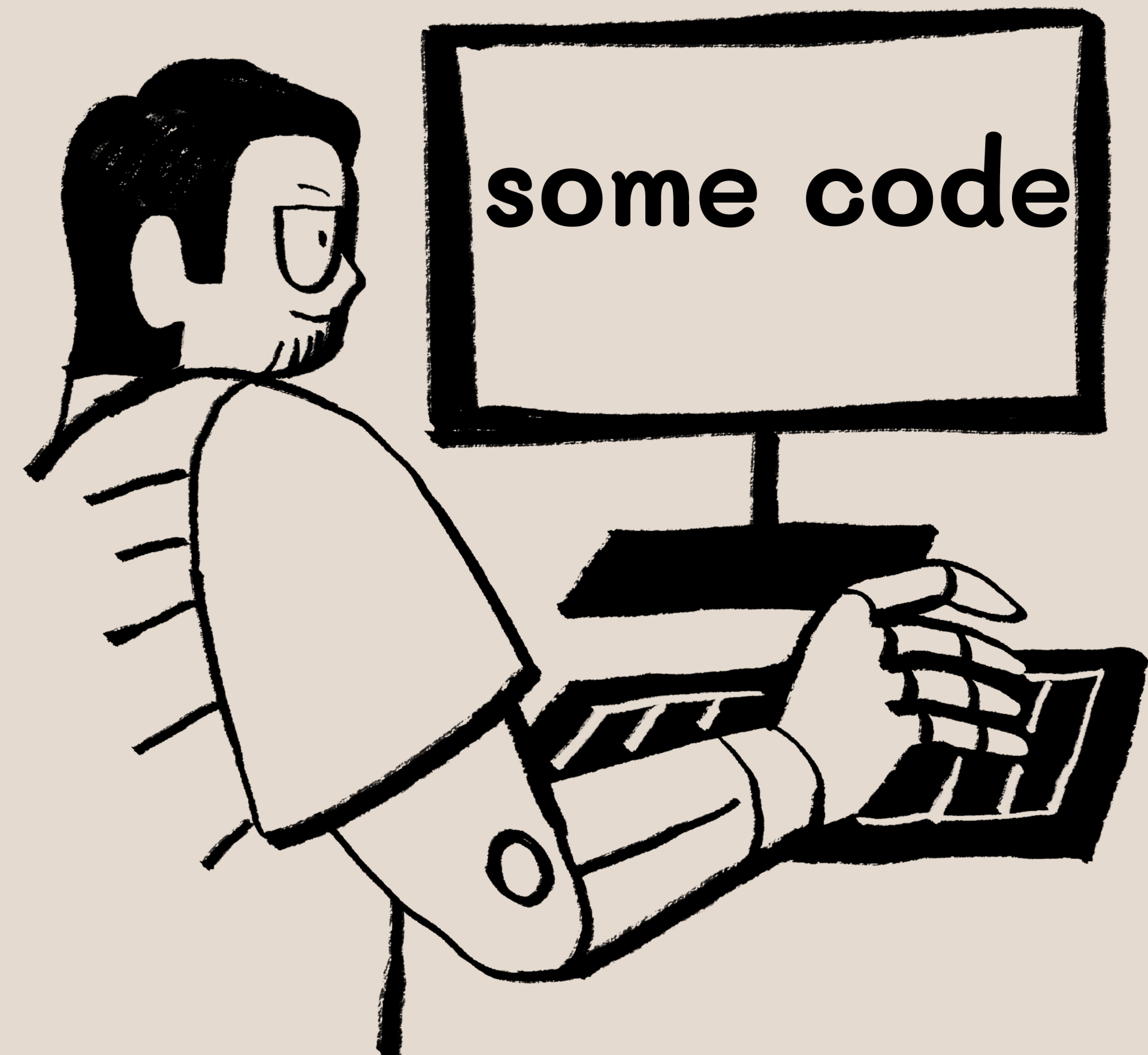


Poor Documentation Practices

Poor documentation leads to confusion, onboarding delays, and more time spent deciphering code instead of building features.

**What if there was a way to
automate this process,
ensuring your repositories
always have clear, accurate
documentation without the
manual effort?**





INTRODUCING

AN AI POWERED GITHUB DOCUMENTATION GENERATOR:

IT CAN HELP DEVELOPERS WITH
THE DOCUMENTATION, THEY CAN
FOCUS ON CODING AND
SHIPPING MORE.

What our application offers?



Just Plug and Play

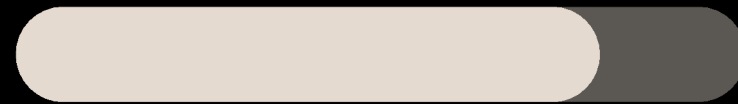


35%

Users can just login with their
Github



Less effort

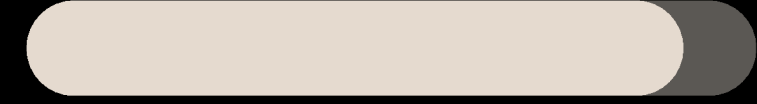


80%

Select the repository they
want the documentation for



Less time

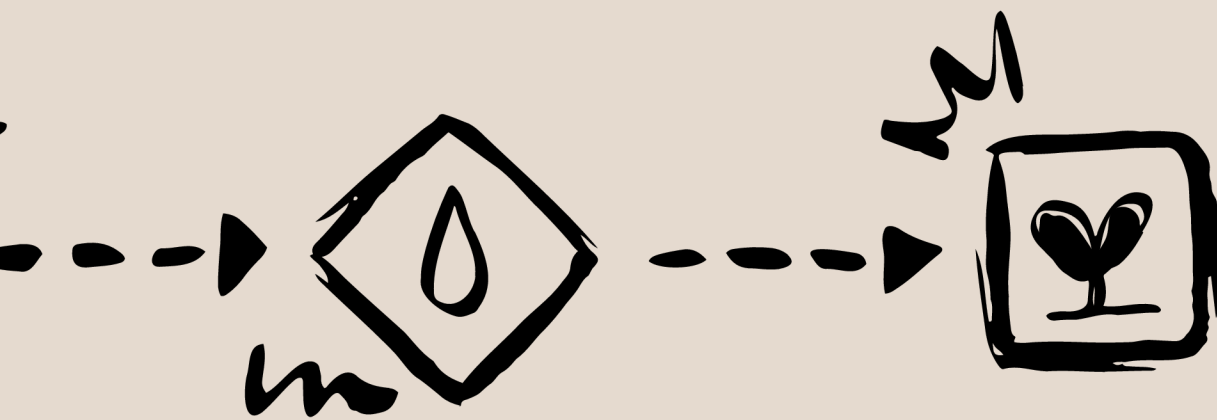


90%

Review and give feedback and
when they're happy,
VOILA!!
it'd be done in the click of a
button.

02

IBM GRANITE LLMS



IBM GRANITE LLMS

At the heart of our application is the IBM Granite 3.1 Dense 2B model.

01

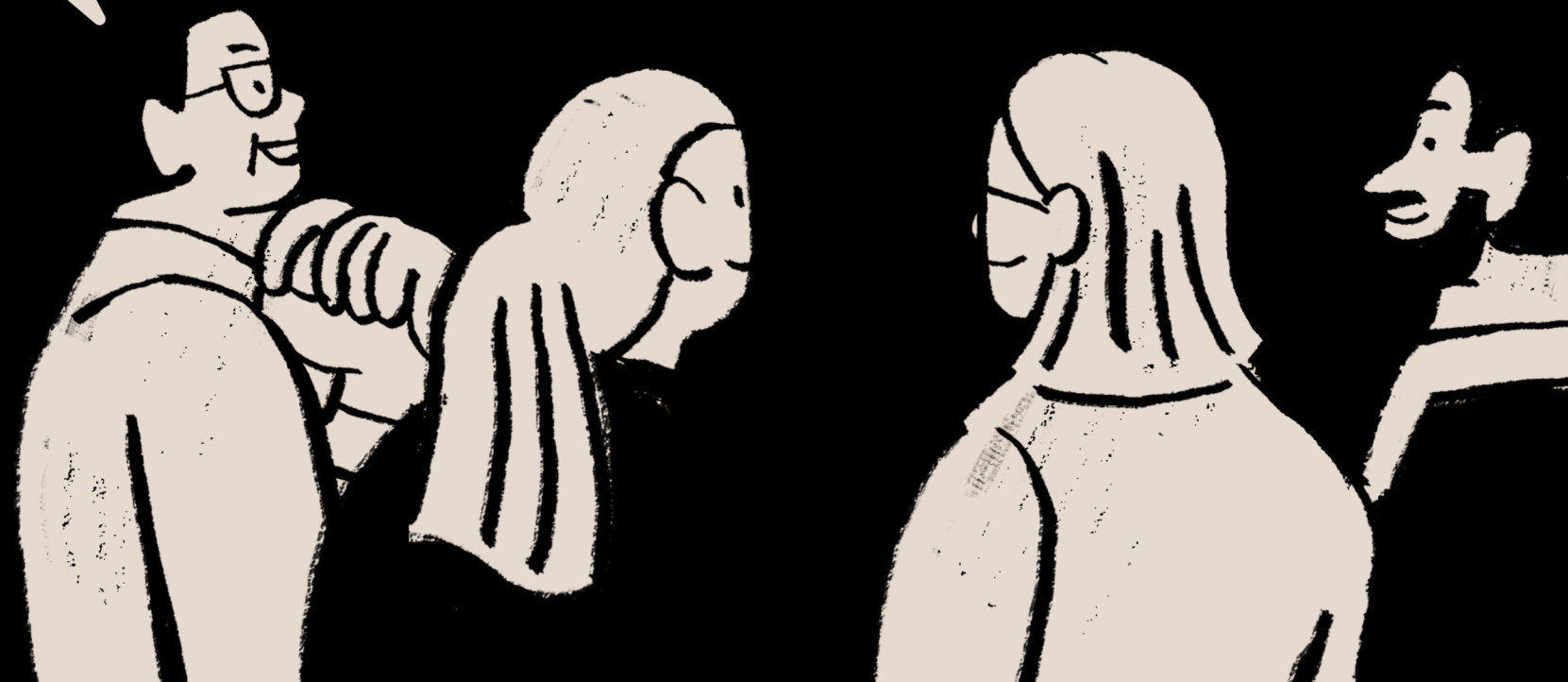
Code Understanding
and generation

02

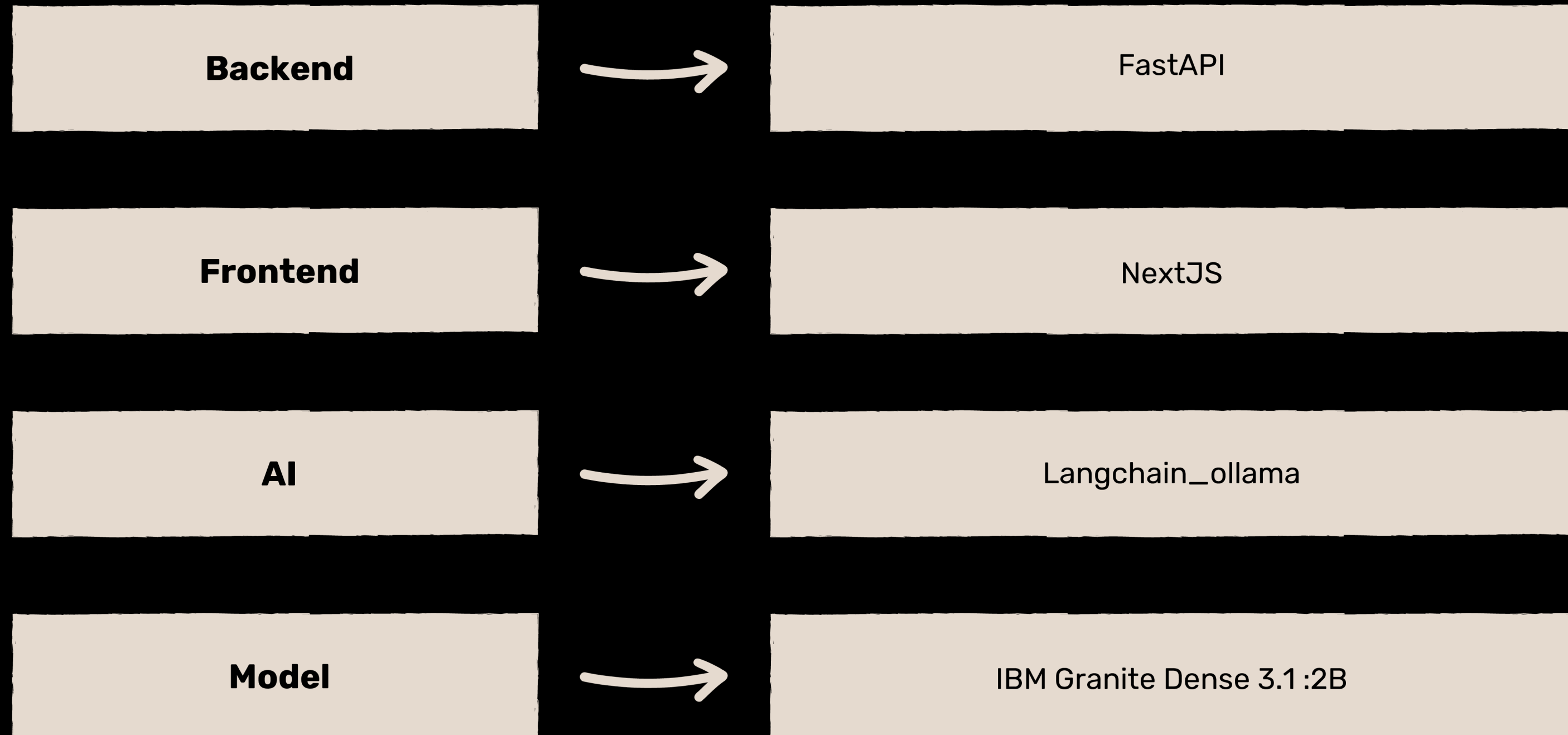
Interactive Content
Refinement

03

High-Quality
Language
Processing



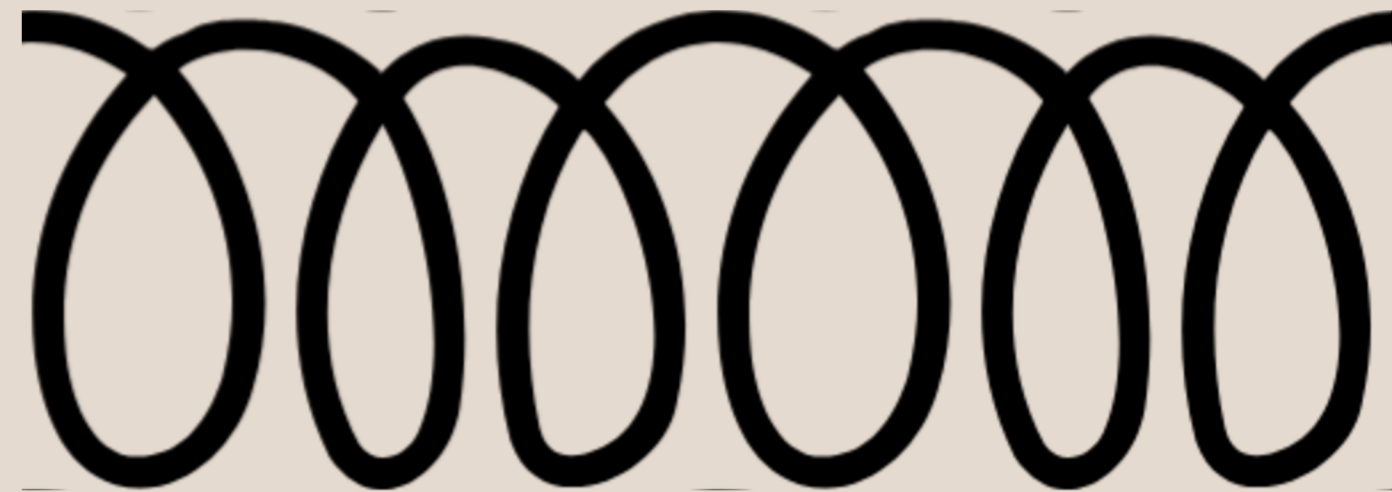
TECH STACK USED:



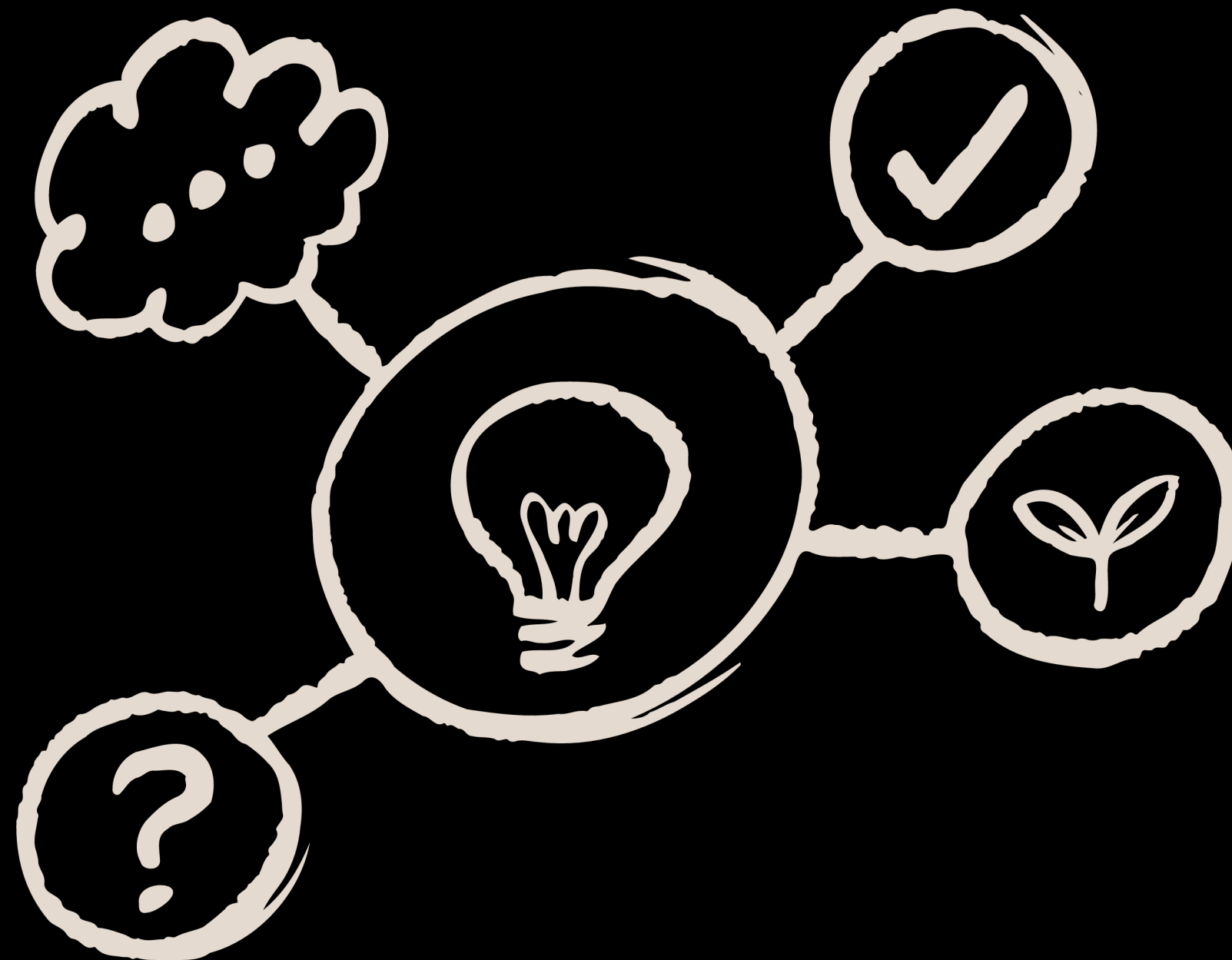
APPLICATION FLOW



03



Important Ideas



1

Github Login and Authentication

Secure GitHub OAuth login for seamless access to user repositories.

2

User selects the Repositories

Users choose desired repositories; relevant code files are fetched via the GitHub API.

3

AI Generates documentation


IBM Granite 3.1 Dense model generates accurate, context-aware documentation for selected repositories

4

User Feedback and refinement

Users review documentation, provide feedback, and AI refines content in real time and commit when satisfied

1. User Dashboard

 CodeMyth Documentation

[Logout](#)



shreya-as

No bio available

28 repositories 3 followers 4 following

Select a Repository

<div>Select</div>	<div>Select</div>
<div><div>Notification</div><div>No description</div><div>JavaScript</div><div>Select</div></div>	<div><div>typescript</div><div>No description</div><div>TypeScript</div><div>Select</div></div>
<div><div>chiya_website</div><div>No description</div><div>JavaScript</div><div>Select</div></div>	<div><div>demo123</div><div>No description</div><div></div><div>Select</div></div>

 Generate Documentation for github-issue-page-frontend

2. Generating documents for selected repo

chiya_website

No description

JavaScript

Select

demo123

No description

Select

Generate Documentation for react-project

Generated the documentation successfully!

Documentation Preview

Show Preview

This document provides a comprehensive overview and detailed documentation for the code files in the react-project project, focusing on functionality related to caching, vectorization, and language model interactions with GitHub repositories.

```
## Table of Contents
- [eslint.config.js](#eslint-config-js)
- [src/App.jsx](#src/App-jsx)
- [src/main.jsx](#src/main-jsx)
- [vite.config.js](#vite-config-js)

## File Documentation

### eslint.config.js
#### Overview
#### Eslint Configuration Overview
```

Provide Feedback

Suggest improvements or changes to the documentation...

3. User feedback interface for the generated docs

No description

JavaScript

Select

No description

TypeScript

Select

chiya_website

No description

JavaScript

Select

demo123

No description

Select

Generate Documentation for github-issue-page-frontend

Documentation Preview

Show Preview

```
# Developer Documentation for MyProject

## Introduction
This document provides a comprehensive overview and detailed documentation for the code files in the MyProject project, focusing on functionality related to caching, vectorization, and language model interactions with GitHub repositories.

## Table of Contents
- [src/App.js](#src/App.js)
- [src/AppUtils/AppFunctions/dateFunctions.js](#src/AppUtils/AppFunctions/dateFunctions.js)
- [src/components/AppSearchBar/index.js](#src/components/AppSearchBar/index.js)
- [src/components/ErrorMessage/index.js](#src/components/ErrorMessage/index.js)
- [src/components/Footer/index.js](#src/components/Footer/index.js)
```

Provide Feedback

change the title

Submit Feedback

Commit to Repository

4. Preview of documentation

chiya_website

No description

JavaScript

Select

demo123

No description

Select

Generate Documentation for github-issue-page-frontend

Documentation Preview

Hide Preview

Developer Documentation for MyProject

Introduction

This document provides a comprehensive overview and detailed documentation for the code files in the MyProject project, focusing on functionality related to caching, vectorization, and language model interactions with GitHub repositories.

Table of Contents

src/App.js
src/AppUtils/AppFunctions/dateFunctions.js
src/components/AppSearchBar/index.js
src/components/ErrorMessage/index.js
src/components/Footer/index.js
src/components/Header/SubHeader.js
src/components/Header/index.js
src/components/Layout/index.js
src/components/Loader/index.js
src/components/Pagination/index.js
src/index.js
src/pages/Issue/IssuePage/IssuePageListing.js
src/pages/Issue/IssuePage/index.js
src/pages/Issue/state/actions.js
src/pages/Issue/state/constants.js
src/pages/Issue/state/issuePageReducer.js
src/pages/IssueDetail/IssueDetailPage/Comment.js
src/pages/IssueDetail/IssueDetailPage/index.js
src/pages/IssueDetail/state/actions.js

meet.google.com is sharing your screen.

Stop sharing

Hide

5. Commit Message

The screenshot shows a GitHub repository named 'react-project' (Public). The repository has 1 branch (main) and 0 tags. The commit history table lists the following files and their commit messages:

File	Commit Message	Commit Hash	Time
public	first	44e4032	yesterday
shreya-as	Update shreya-as/react-project (doc_id: 2be31d66-6a62-...		4 hours ago
src	first		yesterday
.gitignore	first		yesterday
README.md	first		yesterday
developer_documentation.md	Update developer_documentation.md		3 hours ago
eslint.config.js	first		yesterday
index.html	first		yesterday
package.json	first		yesterday
vite.config.js	first		yesterday

The commit message 'Update developer_documentation.md' is highlighted with a red underline. The README section is titled 'React + Vite' and contains the following text:

This template provides a minimal setup to get React working in Vite with HMR and some ESLint rules.

Currently, two official plugins are available:

The right sidebar shows the repository's 'About' section (No description, website, or topics provided), 'Releases' (No releases published), 'Packages' (No packages published), and 'Languages' (JavaScript 47.5%, CSS 43.6%, HTML 8.9%). The 'Suggested workflows' section is also visible, showing a workflow for Deno.

6. Documentation on github

The screenshot displays a GitHub repository interface. On the left, the 'Files' sidebar shows the repository structure with the 'main' branch selected. The file 'developer_documentation.md' is highlighted. The main content area shows the file 'developer_documentation.md' by 'shreya-as' with a commit hash '44e4032' and a commit message 'Update developer_documentation.md'. The file content includes sections for 'Developer Documentation', 'Introduction', 'Table of Contents', 'File Documentation', and 'eslint.config.js'.

Developer Documentation

Introduction

This document provides a comprehensive overview and detailed documentation for the code files in this project.

Table of Contents

- [eslint.config.js](#)
- [src/App.jsx](#)
- [src/main.jsx](#)
- [vite.config.js](#)

File Documentation

eslint.config.js

Overview

Eslint Configuration Overview

The `eslint.config.js` file is a configuration object for the ESLint tool, designed to enforce coding standards and best practices in JavaScript projects, particularly those utilizing React and other modern libraries or frameworks. This configuration is tailored for a project that includes both client-side (browser) and server-side components, which are managed by `eslint-plugin-react` and `eslint-plugin-react-hooks`, respectively.

Detailed Explananation

Key Strategies



Token-Based Chunking for Large Files:

The `chunk_code` function uses `RecursiveCharacterTextSplitter` with a token-based length function (`tiktoken`) to split large code files into manageable chunks. This ensures that each chunk stays within the model's maximum token limit (4000 tokens), allowing efficient processing without truncation.



Incremental Documentation Generation:

For large files, documentation is generated chunk by chunk using the `generate_doc_chunk` function and then merged with clear chunk indicators. This approach enables the model to handle large files effectively while providing granular documentation per chunk.



GitHub API Integration for Seamless Deployment:

The app integrates with GitHub's API to push final documentation directly to repositories. It handles token validation, repository/branch checks, and file updates (with SHA validation), ensuring a secure and streamlined deployment process.

00002

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