



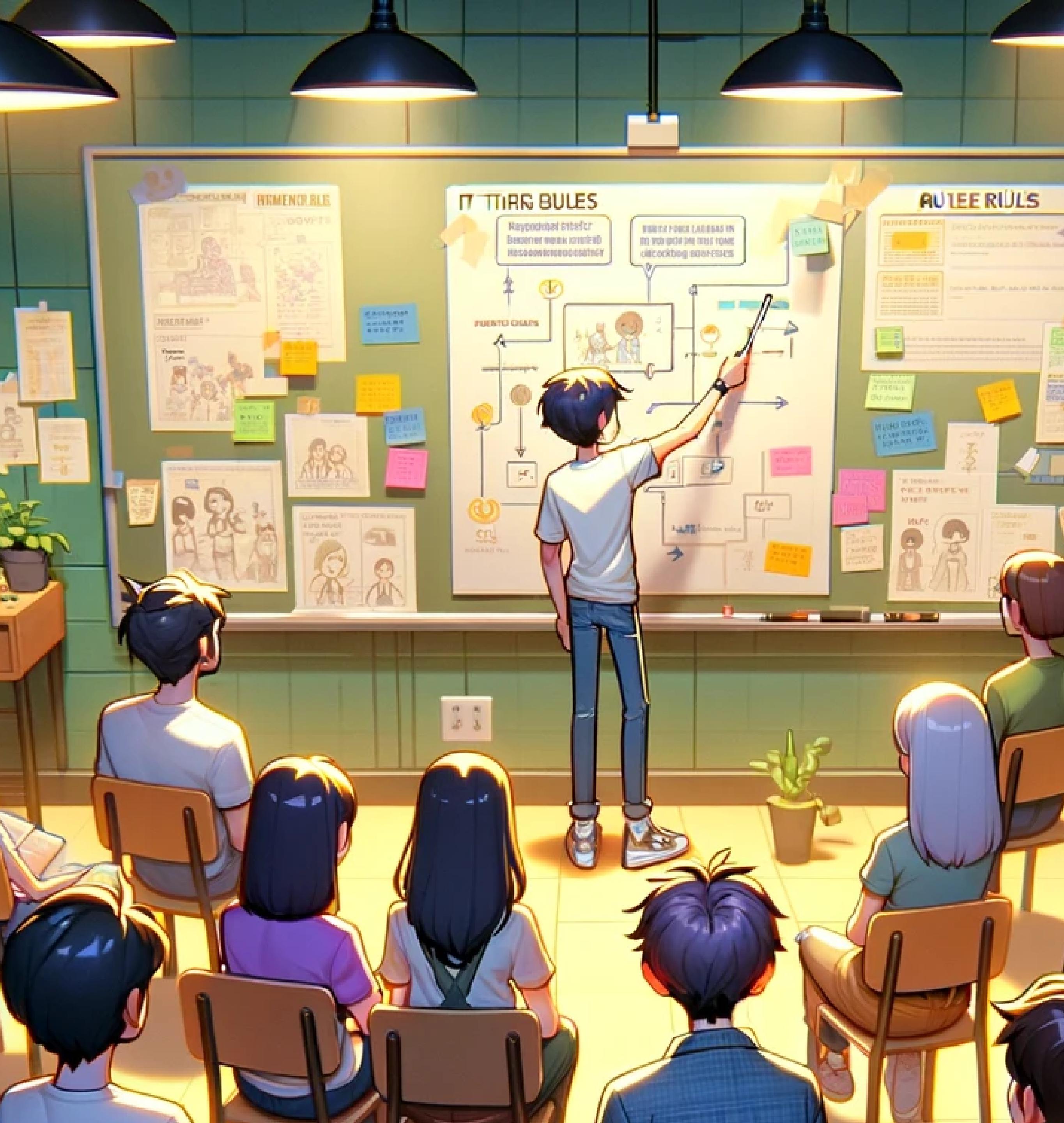
GitHub

Let's understand this from a story writing example

You and your friends are writing a story book together, each adding different parts to it.



To make sure everyone's contributions fit nicely without messing up what's already written, you come up with some rules & guidelines.



Rule 1: Write on Your Own Page

Each friend writes their part of the story on their own sheet of paper.

This way, everyone can jot down their ideas and make changes without interfering with the main story or someone else's work.



Rule 2: Combine the Stories

Once everyone is finished, you all sit together and decide which pieces of the story to add to the main storybook.

You carefully read each addition, making sure it fits well with the rest of the story and doesn't contradict anything.



Rule 3: Review and Edit Together

Before any part of the story is permanently added, the group reviews it. If a part of the story needs tweaking to fit better with the rest, you discuss it and make the edits.

This ensures that the entire story flows smoothly and everyone is happy with the final product.



Rule 4: Keep a Record of Changes

You decide to keep all the older versions of the story, just in case you want to go back and see what changes were made or if you decide a previous version fits better.

For every new addition, you note down who added it and when, creating a history of how your story evolved.



Rule 5: Work Independently but Together

Let everyone work on their part of the story at their own pace, without waiting on others or risking messing up the story.



This is the same process developers follow to write code in a team.



= Code Repository

They use Repository as a book where they keep and publish all of their stories and code.

Siddhant-Goswami / **dev-expo-sass**

Type ⌘ to search

Code Commits Issues 9 Pull requests 1 Discussions Actions Projects 1 Wiki Security Insights Settings

dev-expo-sass Public

Pin Watch 1 Fork 1 Starred 5

main 11 Branches 0 Tags Go to file Add file Code

Siddhant-Goswami Update project dependencies with pnpm (#114) ✓ a59ea06 · 3 months ago 321 Commits

.github ci: pre deploy, actions 4 months ago

.vscode working project submit 4 months ago

public UI changes (#82) 3 months ago

scripts Dev (#108) 3 months ago

src Fix/onboarding-form-gh-field (#111) 3 months ago

.eslintrc.cjs run prettier 4 months ago

.gitignore Added sentry and vercel analytics 4 months ago

README.md Update README.md 4 months ago

components.json Merge remote-tracking branch 'origin/main' into feat/the... 4 months ago

drizzle.config.ts fix image and video uploads 4 months ago

next.config.js Dev (#97) 3 months ago

About

dev-expo-sass.vercel.app

Readme Activity 5 stars 1 watching 1 fork

Releases

No releases published Create a new release

Packages

No packages published Publish your first package

Contributors 5

Siddhant-Goswami, Pranav, Siddhant, Siddhant-Goswami, Siddhant-Goswami

1. Write on Your Own Page = Branches

Just as you write your story part on a separate sheet to avoid interfering with the main story, developers create branches to work on features or fixes without affecting the main codebase (the "main" branch).



Github Branches

dev-expo-sass Public

main 11 Branches 0 Tags

Switch branches/tags X

Find or create a branch...

Branches Tags

- ✓ main default
- admin
- feat/better-md
- feat/client-server
- feat/components
- feat/db-queries
- feat/dev-onboarding
- feat/homepage
- feat/ui
- fix/onboarding
- View all branches

Branches

New branch

Overview Yours Active Stale All

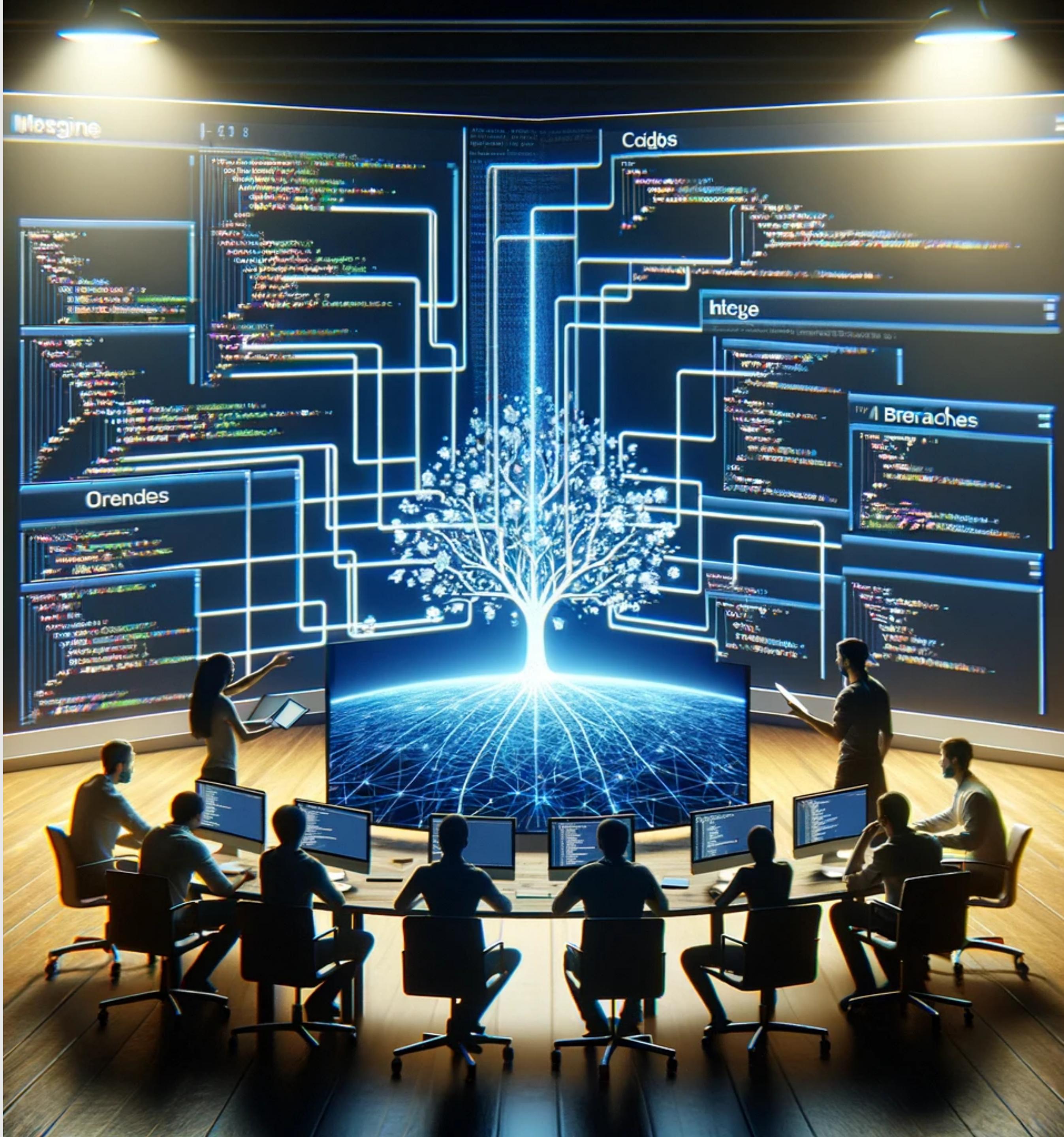
Search branches...

Branch	Updated	Check status	Behind	Ahead	Pull request
main	3 months ago	✓ 2 / 2	Default		...
feat/better-md	3 months ago	✗ 5 / 6	1 2	#112	...
admin	3 months ago	✓ 6 / 6	4 11	#106	...
fix/onboarding	3 months ago	✓ 6 / 6	17 3	#93	...
feat/ui	4 months ago	✗ 5 / 6	96 2	#57	...
feat/client-server	4 months ago	✓ 3 / 3	111 3		...
project-ui	4 months ago	✗ 3 / 6	217 0	#34	...

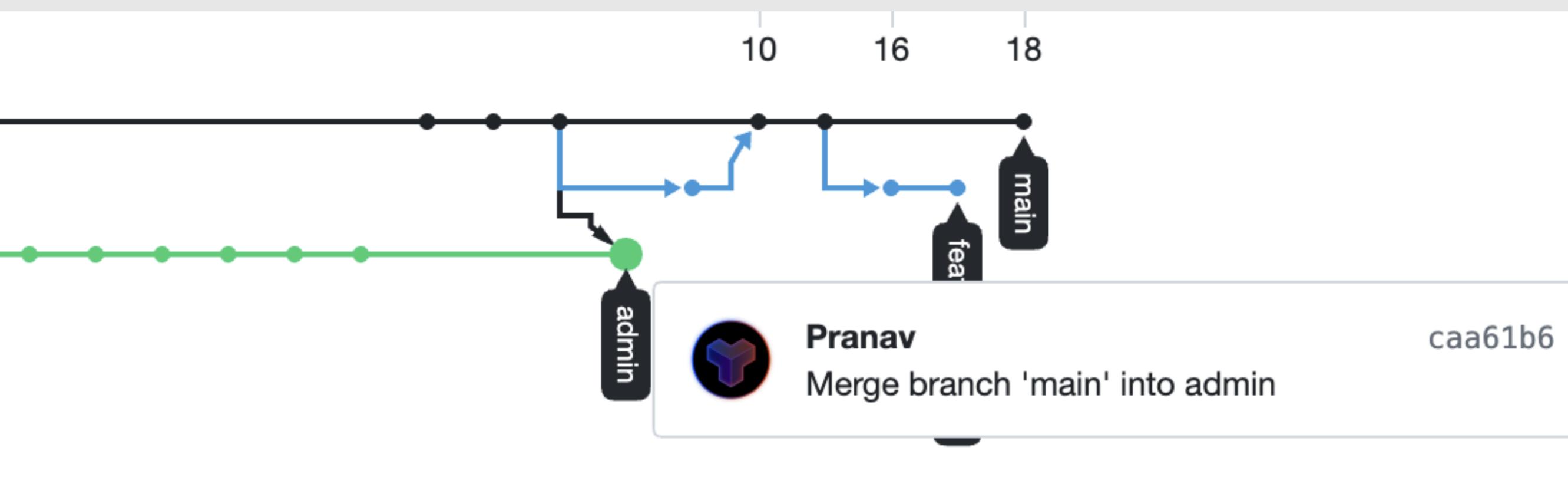
2. Combine the Stories = Merging

When you decide which pieces of the story to add to the main storybook, it's like merging branches in GitHub.

After a piece is reviewed and accepted, it's carefully integrated into the main story (main branch), ensuring that everything fits together seamlessly.

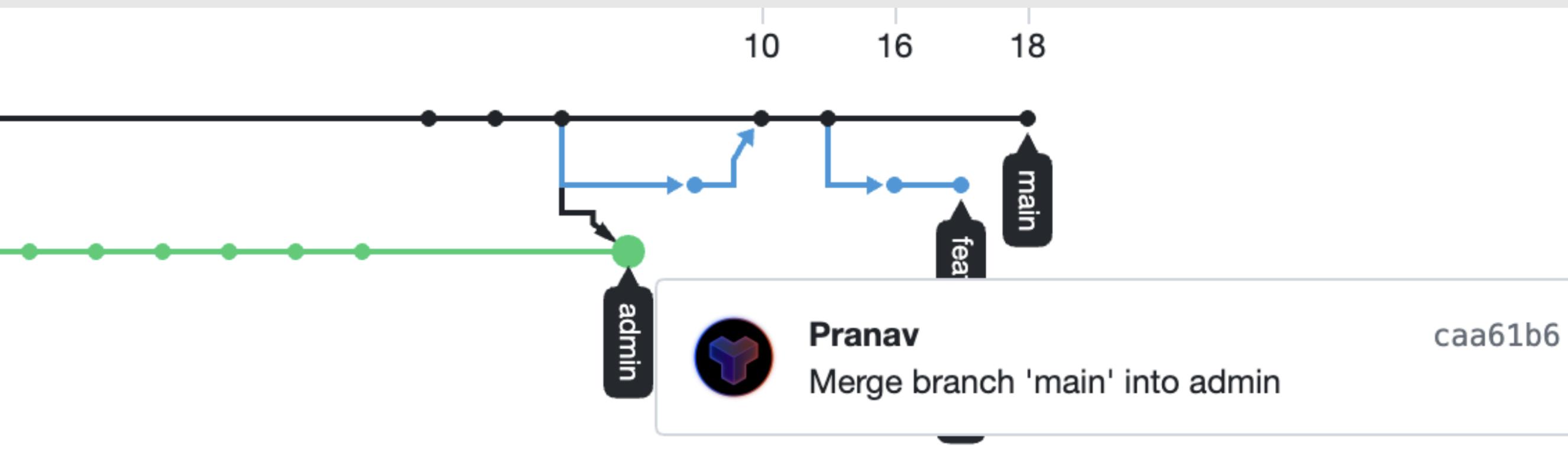


Merging Branches



- thecmdrunner self-assigned this on Dec 10, 2023
- thecmdrunner requested review from ajinkyabodke, KishanMandora and rishabh-gurbani 3 months ago
- vercel (bot) deployed to Preview – overpowered-jobs 3 months ago [View deployment](#)
- thecmdrunner added 3 commits 3 months ago
- keys 4692752
 - validation d06f3e9
 - better validation ✓ 877733d
- vercel (bot) deployed to Preview – overpowered-jobs 3 months ago [View deployment](#)
- thecmdrunner enabled auto-merge (squash) 3 months ago
- KishanMandora approved these changes on Dec 10, 2023 [View reviewed changes](#)
- thecmdrunner merged commit [6cf1234](#) into [main](#) on Dec 10, 2023 [View details](#) [Revert](#)
6 checks passed

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6 checks passed

Rule 3: Pull Requests and Code Reviews (Review and edit)

Before permanently adding a piece to the story, the group reviews it.

This is akin to pull requests on GitHub, where changes from a branch are proposed to be merged into the main project.

Team members can review these changes, suggest edits, and approve the update, ensuring quality and consistency in the project.



3. Review and edit = Pull Requests

Before permanently adding a piece to the story, the group reviews it.

This is akin to pull requests on GitHub, where changes from a branch are proposed to be merged into the main project.

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Pull Requests

Comparing changes

Choose two branches to see what's changed or to start a new pull request.

base: main compare: admin ✓ Able to merge. These br

Choose a head ref

Admin UI #106 1 tasks (1 completed)

Find a branch

Branches Tags

main default

✓ admin

Create another pull request

Pull requests 1 Discussions Actions Projects 1 Wiki Security Insights Settings

better md #112

Open thecmdrunner wants to merge 2 commits into [main](#) from [feat/better-md](#)

Conversation 1 Commits 2 Checks 5 Files changed 5

thecmdrunner commented on Dec 16, 2023

Collaborator ...

Changes made:

- pretty md

...

pretty md

better md

thecmdrunner requested a review from rishabh-gurbani 3 months ago

x 22b9a47

4. Keep a Record of Changes = Commits

Keeping older versions of the story and noting who made changes and when is similar to GitHub's commit history.

Each commit in GitHub records a change to the project along with the author's details and a timestamp. This allows developers to track the project's evolution and revert to previous states if necessary.



Commit (Who, When, Why)

Commit

✓ update branding ← Commit Message (Why) Browse files

main (#88) ← Author (Who) → ajinkyabodke committed on Dec 5, 2023 ← Time (When) 1 parent 22259c7 commit fa577db

Showing 4 changed files with 15 additions and 14 deletions. Whitespace Ignore whitespace Split Unified

src/app/privacy-policy/page.tsx

Line	Old Text	New Text
308	grounds of such termination of User account.	grounds of such termination of User account.
309	</p>	</p>
310	<p className={paragraph}>	<p className={paragraph}>
311	- You may send a request in writing to Us to hello@100xengineers.com	+ You may send a request in writing to Us to hello@overpoweredjobs.com
312	</p>	</p>

5. Work Independently but Together = Github (DVC)

The method of working independently on different parts of the story and then combining them reflects the essence of distributed version control in GitHub.

Developers can work on different features or bug fixes simultaneously, merging their work into the project at the right time, which enhances collaboration without causing conflicts.



Discussions

The screenshot shows a discussion forum interface. At the top, there's a purple header with a profile picture and the text "1.8.0". Below it, a red bar contains the text "Announcements - AUTOMATIC1111". A search bar with the placeholder "Q is:open" and a "New discussion" button are also present. The main area has a "Categories" sidebar on the left with links like "View all discussions", "General", "Ideas", "Optimization", "Polls", "Q&A", "Show and tell", "Announcements", "Watchers", and a "Most helpful" section for the last 30 days. The main content area displays a list of discussions, each with a title, author, timestamp, and interaction counts (upvotes, comments, and likes).

Wikis

The screenshot shows a wiki page for "Stable Diffusion web UI". The top navigation bar includes a profile picture, the page title, and a "Pages 33" link. The main content area has a "Home" section with a note about the page being edited on Sep 10, 2023. Below it, sections include "Setup" (with links to GPU installation), "Reproducing images / troubleshooting" (with links to seed breaking changes and general troubleshooting), and "Usage" (with links to various features and guides). On the right, a sidebar lists "Setup", "Reproducing images / troubleshooting", "Usage", and "Developers" sections. At the bottom, a "Project Board" section is visible.

Issues

Project Board

The screenshot shows a project board with four columns: "MVP", "Todo", "In Progress", "In Review", and "Done". The "MVP" column has a "Tasks" dropdown and a "+ New view" button. The "Todo" column has one item: "This item hasn't been started". The "In Progress" column has one item: "This is actively being worked on". The "In Review" column has one item: "This has been completed". The "Done" column has several items, each with a checkmark and a link to a project detail page. The items are: "dev-expo-sass #18 Project Detail Page (Backend)", "dev-expo-sass #4 TRPC setup", "dev-expo-sass #16 Post Project flow APIs (Backend)", "dev-expo-sass #21 Get in touch Form UI (Frontend)", "dev-expo-sass #22 Get in touch Form API (Backend)", and "dev-expo-sass #20 Developer Profile API (Backend)".

**Exercise - Create a github repo and push
your changes.**

Create a new branch.

Commit a change.

Raise a PR.

Review and

Merge PR

Github has a lot of features

<https://github.com/features>

Code Hosting and Collaboration

- **Repositories:** Host and manage your code projects in Git repositories.
- **Forks:** Copy another user's repository to your account to propose changes.
- **Branches:** Manage different versions of your repository simultaneously.
- **Pull Requests:** Submit changes to a repository for review and integration.
- **Code Review:** Review code changes within pull requests before merging.
- **Issues:** Track tasks, enhancements, and bugs for your projects.
- **Wikis:** Create and share detailed documentation for your project.
- **GitHub Actions:** Automate workflows for CI/CD, testing, and more.
- **Project Boards:** Organize and prioritize your work and projects on customizable boards.

Development Tools

- **GitHub Copilot:** AI-powered code completion and suggestion tool.
- **GitHub Codespaces:** A cloud-based development environment.
- **GitHub CLI:** Command-line tool to work with GitHub from your terminal.
- **GitHub Desktop:** Desktop application to manage Git repositories.
- **Code Scanning and Secret Scanning:** Identify security vulnerabilities and secrets in your code.
- **Dependabot:** Automated dependency updates for your projects.

Community and Networking

- **Discussions:** Engage with the community through Q&As, announcements, and conversations.
- **Sponsorship:** Financially support developers and projects through GitHub Sponsors.
- **Stars:** Bookmark repositories and show appreciation for projects.
- **Followers/Following:** Follow other users and get followed to keep up with their activity.

Integration and API

- **GitHub API:** Automate and extend GitHub with the comprehensive GitHub API.
- **Webhooks:** Receive automated HTTP push notifications for repository activities.
- **GitHub Marketplace:** Access third-party tools that integrate with GitHub.
- **GitHub Packages:** Host and manage packages alongside your code.

Security and Compliance

- **Security Advisories:** Publish and discuss security vulnerabilities in your projects.
- **Security Policies:** Define security policies for your repositories.
- **License Scanning:** Detect and review open-source licenses in your projects.
- **Audit Log:** Track activities across your organization for security and compliance.

GitHub for Enterprises and Teams

- **GitHub Enterprise:** On-premises or cloud-based solution for large organizations.
- **Team Management:** Manage access, permissions, and collaboration for teams.
- **Advanced Project Management:** Enhanced tools for project and workflow management within teams and organizations.

GitHub Education

- **GitHub Classrooms:** Free access to GitHub's premium features for students and educators, including private repositories, collaboration tools, and more.

Task

Ask your fav LLM to explain you all these things, and post about these on discord