

ProtoSchool

ProtoSchool is an educational community that teaches decentralized web protocols and tools through **online tutorials** and **local chapter events**.

ONLINE TUTORIALS

Self-guided **interactive tutorials** are the heart of ProtoSchool.

Featured Tutorials

Decentralized Data Structures

The decentralized web relies on unique data structures and linking strategies. Learn about the benefits of hashing, content addressing, DAG and Merkle Trees!

P2P data links with content addressing

Store, fetch, and create verifiable links between peer-hosted datasets with IPFS and CIDs. It's graphs with friends!

Blogging on the Decentralized Web

Cool content addresses don't change.

Most lessons introduce a new concept and then use a **code challenge** to apply the learning.

TRY IT!



Use `ipfs.dag.put` to create a node for the data `{test: 1}`. Return the CID of your new node.

```
1 /* globals ipfs */
2
3 const run = async () => {
4   // your code goes here!
5   // be sure this function returns the requested value
6 }
7
8 return run
9
10
```

Update the code to complete the exercise. Click **submit** to check your answer.

Submit

Code is saved as the user completes the exercise, and feedback is provided when the solution is submitted.

 YOU DID IT!

Use `ipfs.dag.put` to create a node for the data `{test: 1}`. Return the CID of your new node.

[Reset Code](#)

```
1 /* globals ipfs */
2
3 const run = async () => {
4     return ipfs.dag.put({test:1})
5 }
6
7 return run
8
9
```

Everything works! [View in IPLD Explorer](#)

[Next](#)

Status symbols let users track their progress through each tutorial.

IPFS P2P data links with content addressing



Store, fetch, and create verifiable links between peer-hosted datasets with IPFS and CIDs.
It's graphs with friends!

LESSON 1 Create a node and return a Content Identifier (CID)

LESSON 2 Create a new node that's linked to an old one

LESSON 3 Read nested data using links

The current tutorials are heavily focused on IPFS, but we want our content to extend across many decentralized web topics and tools, including IPLD, LibP2P, Multiformats, FileCoin, and more.

New to the decentralized web? Not a developer? Try this code-free introduction to important concepts!

IPFS Decentralized data structures



The decentralized web relies on unique data structures and linking strategies. Learn about the benefits of hashing, content addressing, DAG and Merkle Trees!

LESSON 1 Data structures

LESSON 2 The centralized web: Location-based addressing

LESSON 3 The decentralized web: Content addressing

LESSON 4 Cryptographic hashing and Content Identifiers (CIDs)

LESSON 5 Merkle trees and directed acyclic graphs (DAG)

LOCAL CHAPTERS

Local chapters around the world host live events using the tutorials as curriculum, with mentors available for support.



Chapters operate independently, but each gets its own repo in our org, where it can share chapter info, host discussions, and list upcoming events.

ProtoSchool London

👋 Hello decentralisers of London ✨ 🎉 🎉

Want to know more about the peer-to-peer web? Let meet up! We're going to figure out how to upgrade the internet together. Anyone who wants to talk about decentralising the web, learn, and share ideas is welcome.

We may be decentralised, but we can assemble!

Help us plan the first event: <https://github.com/ProtoSchool/london/issues/1>

Organisers

This gathering is being bootstrapped by the folks that brought you [Nodebots of London](#) and [Meteor London](#)

- Alan Shaw - [@alanshaw](#)
- Alex Potsides - [@achingbrain](#)
- Oli Evans - [@olizilla](#)

If you can help, [let us know](#)

Contributing

In the interest of fostering an open and welcoming environment, we as contributors and maintainers pledge to making participation in our project and our community a harassment-free experience for everyone.

A chapter can also choose to build its own website using GitHub Pages, in which case it will be automagically hosted at

proto.school/chapter-name

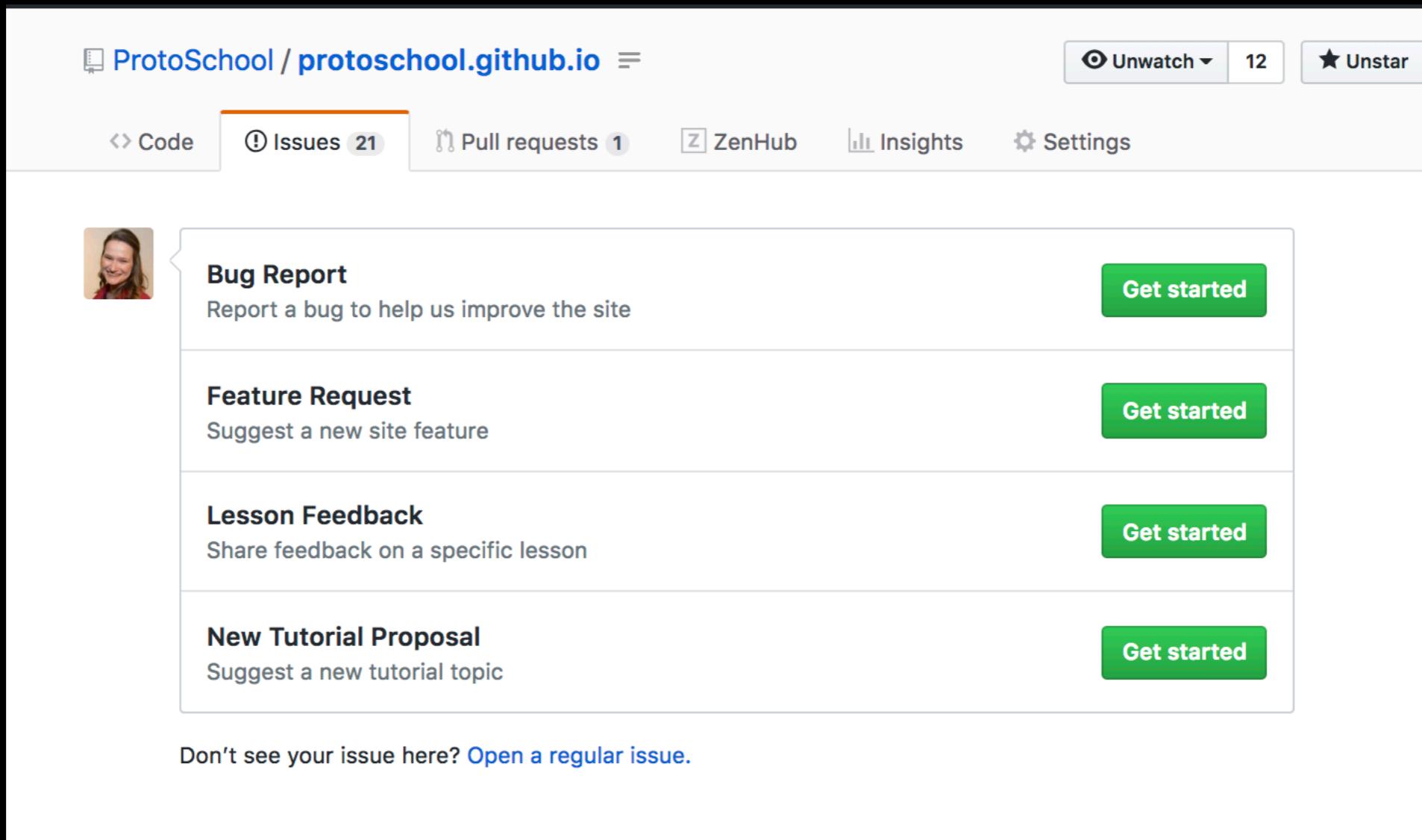
GET INVOLVED

Explore the site and share your feedback!

For suggestions or questions on a specific lesson, you'll find a customized link at the bottom of every lesson page.

Feeling stuck? We'd love to hear what's confusing so we can improve this lesson. Please [share your questions and feedback](#).

Open an issue to report a bug, request a new feature, suggest improvements to existing lessons, or propose a topic for a new tutorial.



Start a local ProtoSchool chapter!

As a chapter organizer, you'll:

- Organize local chapter events, using our tutorials as curriculum and providing mentors
- Maintain your repo, fostering discussions and sharing event announcements
- Create and enforce a Code of Conduct
- Build a chapter website (optional)

See our [organizing repo](#) for chapter setup instructions.

Follow **@ProtoSchool** on Twitter and help us extend our reach.



QUESTIONS?