

Tutors



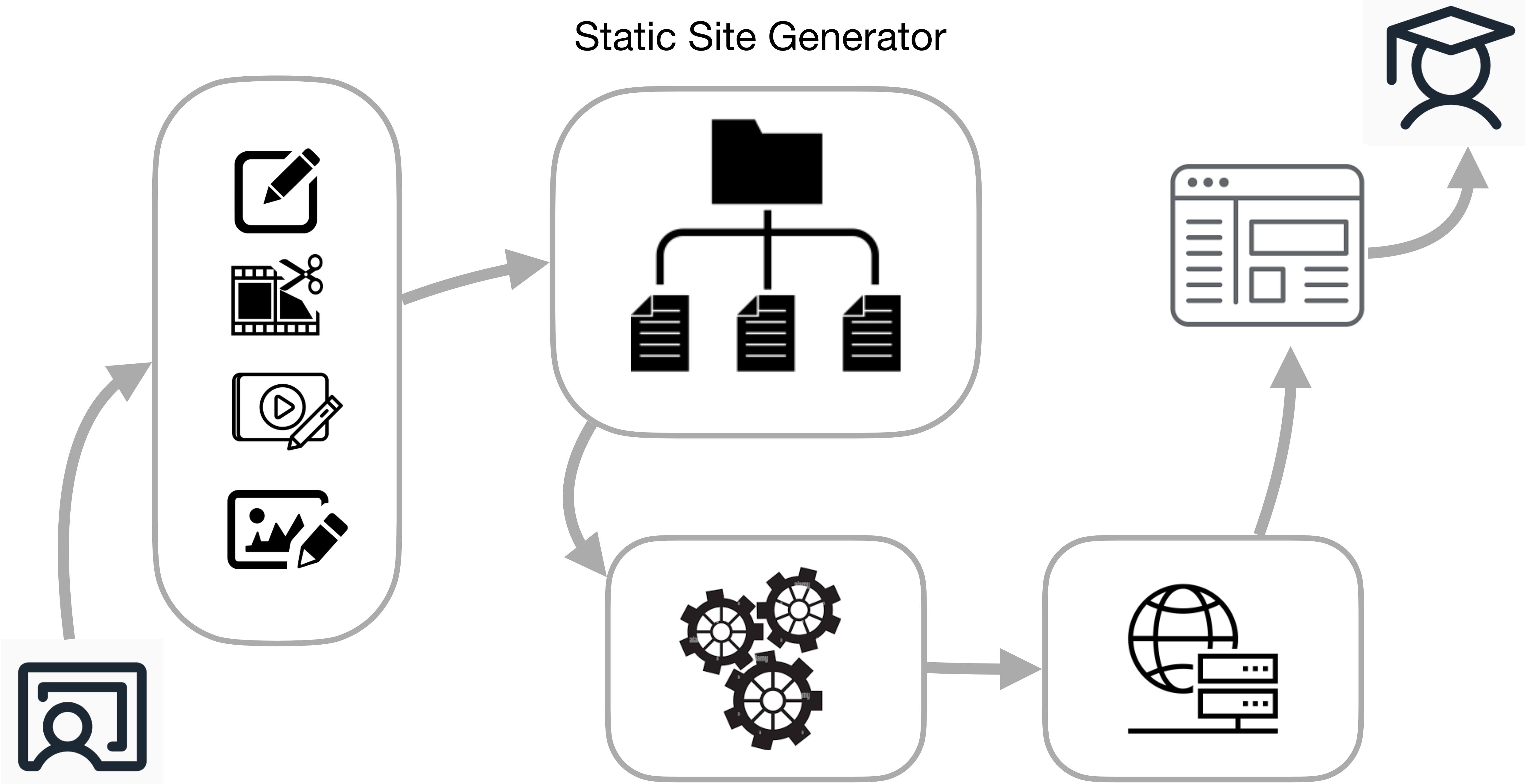
Open Web Learning Toolkit

The Educator Experience

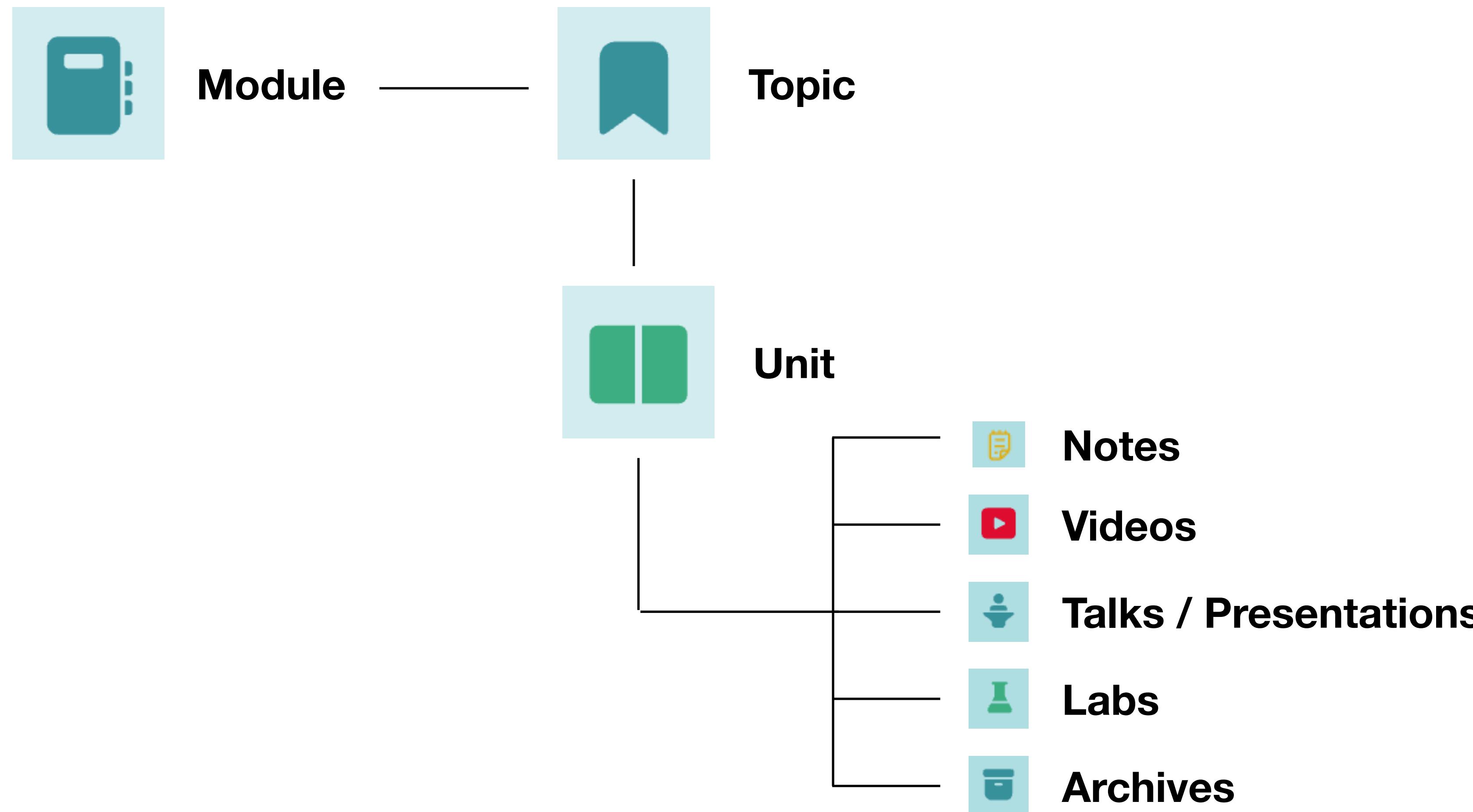


The ***Educator Experience*** prioritises the creation of a **guided paths** through a curriculum via the creation of learning materials that are **autonomous, structurally aligned, composable, auditable, extensible, versioned and independent**.

Static Site Generator

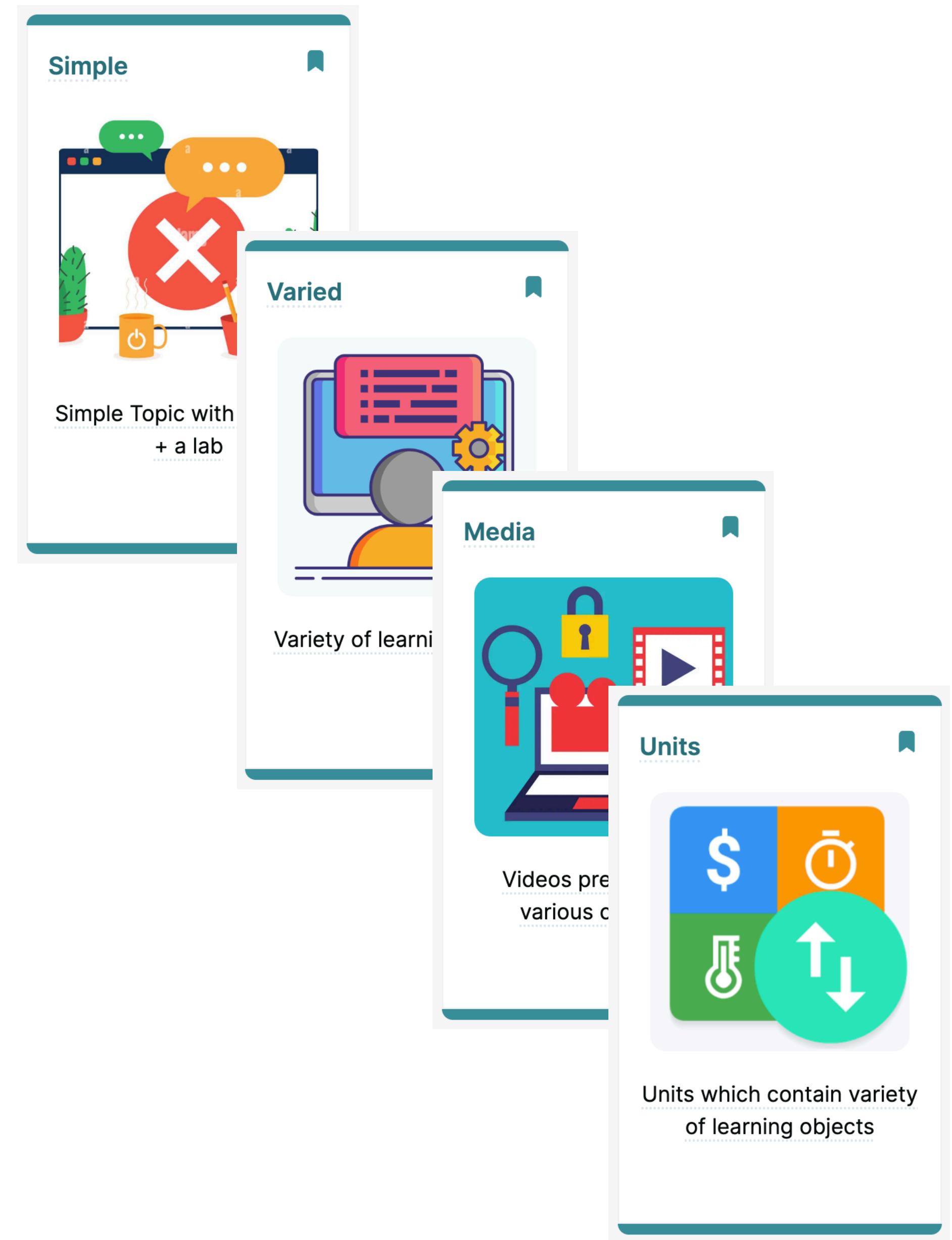
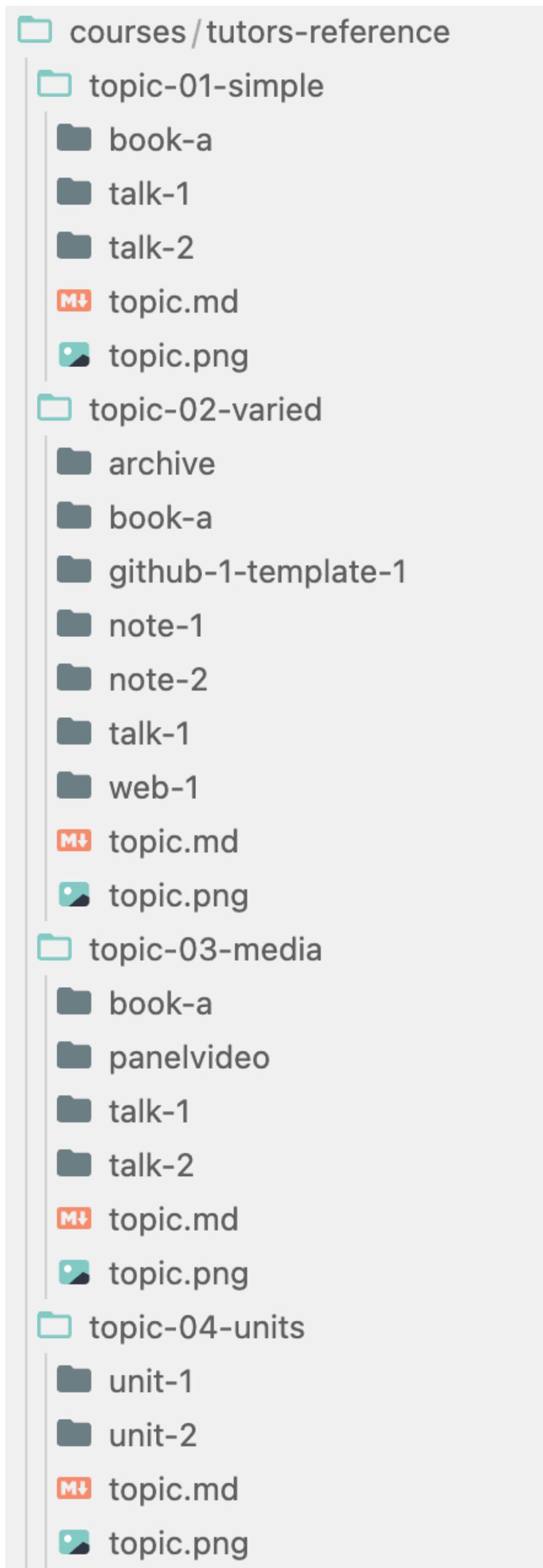


Module Structure

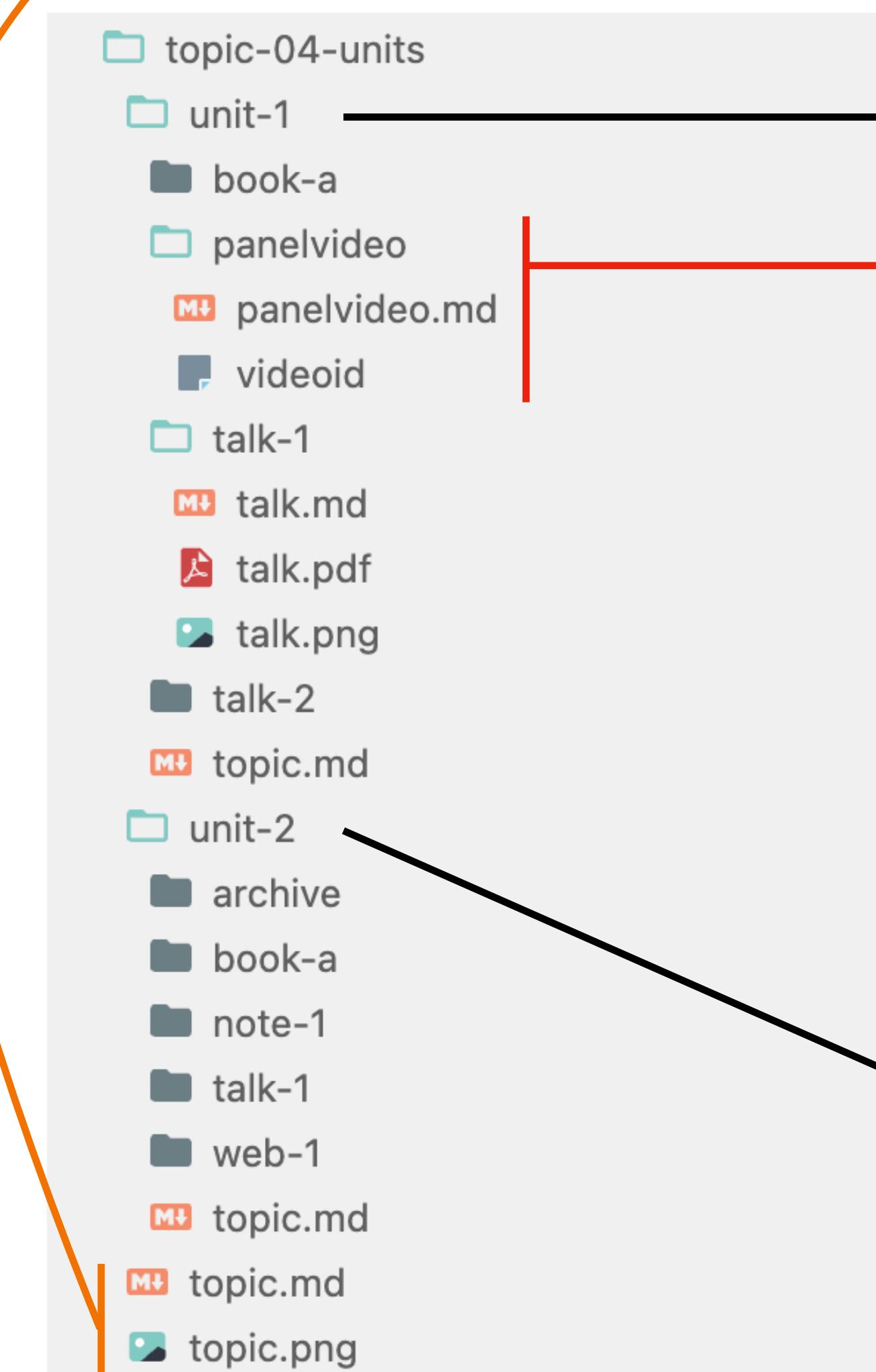
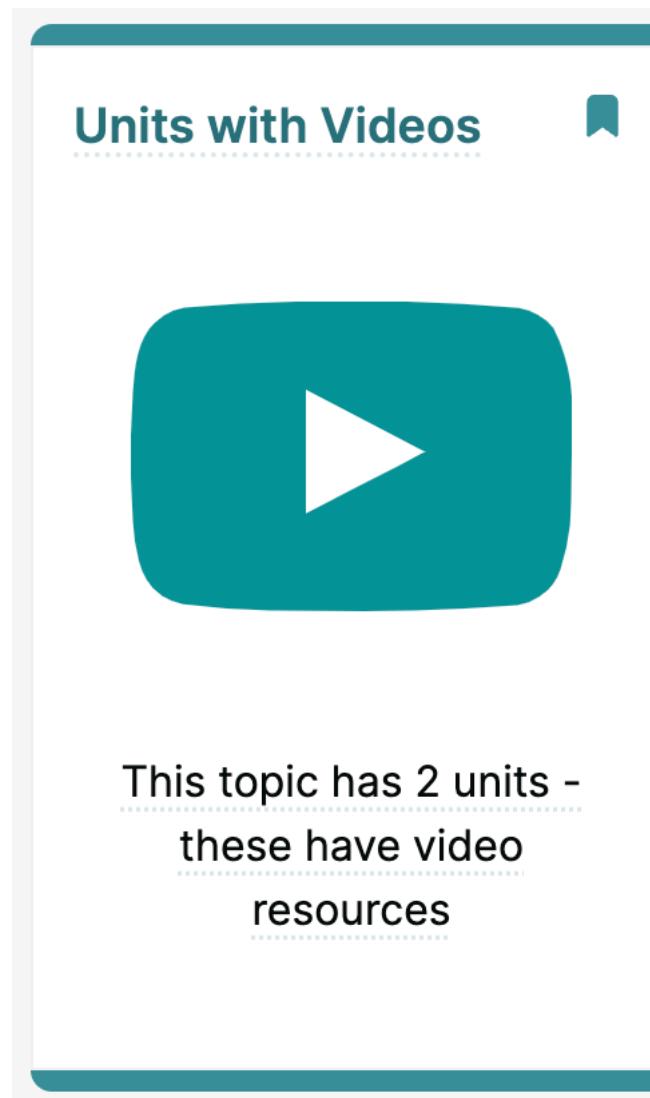


Topic Structure

<https://reference.tutors.dev>



Single Topic Structure



A screenshot of a course management system interface. At the top, it says 'Units Reference Course' and 'Unit 1 Title'. The main content area displays a 'Panel Video' titled 'Higher Diploma in Computer Science Full Stack Web Development'. Below the title are logos for SPRINGBOARD, European Institute of Technology, HEA, European Union, and Waterford Institute of Technology. A 'Watch on YouTube' button is present. A red arrow points from the 'unit-1' folder in the file structure diagram to this panel video.

A screenshot of a course management system interface. At the top, it says 'Unit 2 Title'. The main content area displays five cards: 'Note Example' (yellow notepad icon), 'Resource I' (blue link icon), 'Web Site' (blue link icon), 'Lecture' (teal T icon), and 'Lab-01' (blue circular icon with code). A black arrow points from the 'unit-2' folder in the file structure diagram to the 'Lecture' card.

Semantic Naming

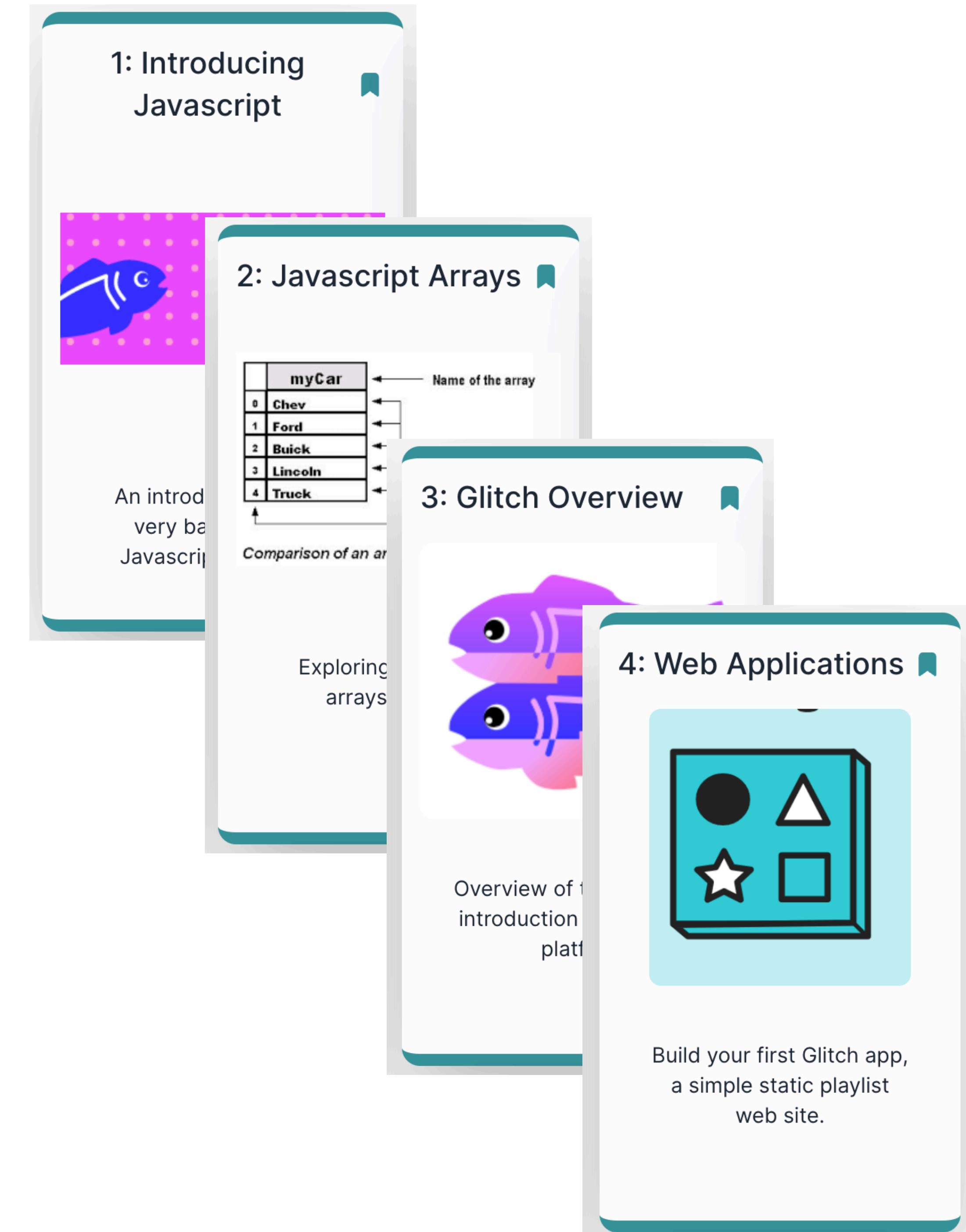
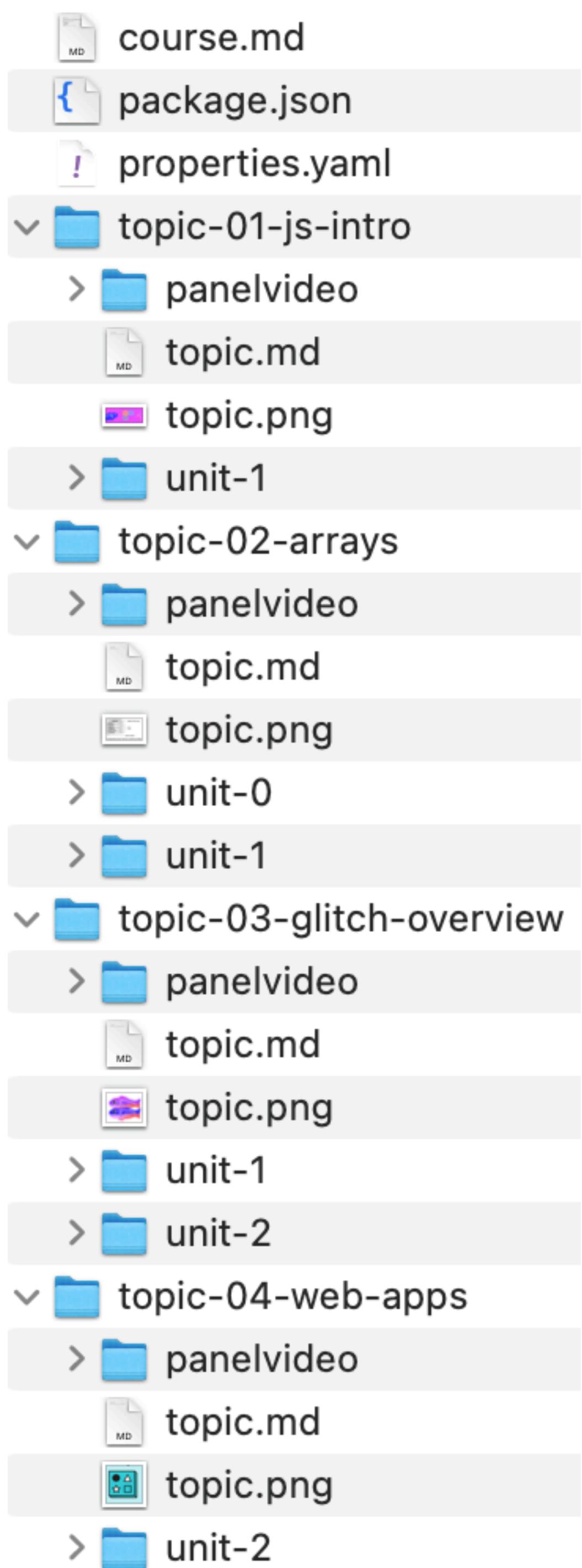
panelvideoXXX ->
Video

unit-XXX ->
related resources

topicXXX ->
topic

bookXXX ->
lab

talkXXX ->
pdf/slides



2: Javascript Arrays

Exploring Javascript arrays in detail

Comparison of an array to a column of data

	myCar
0	Chev
1	Ford
2	Buick
3	Lincoln
4	Truck

Name of the array
Data
Index number

- topic-02-arrays
 - panelvideo
 - panelvideo.md
 - videoid
 - topic.md
 - topic.png
 - unit-0
 - talk-e-variables-objects
 - talk-f-methods-arrays
 - topic.md
 - unit-1
 - book-a-js-arrays
 - talk-a-arrays-basics
 - talk-b-array-methods
 - talk-c-array-iteration
 - talk-d-arrays-of-objects
 - topic.md

02 arrays

Watch Later Share

Higher Diploma in Computer Science
ICT Skills 1

Watch on YouTube

02: Javascript Arrays

Javascript Variables, Objects & Methods

Variables & Objects Review

A concise tour of the structure of variables & objects in Javascript

Methods & Arrays Review

A concise look at methods & Arrays

Javascript Arrays

Arrays: Basics

Creating, accessing, adding to and removing from arrays.

Array Methods

Exploring length, slice, concat, join, indexOf, lastIndexOf

Array Iteration

Using for, while and do-while to iterate over an array



Javascript Variables, Objects & Methods

```
unit-0
  talk-e-variables-objects
    variables-objects-review.key
    variables-objects-review.md
    variables-objects-review.pdf
    variables-objects-review.png
  talk-f-methods-arrays
    methods-arrays.key
    methods-arrays.md
    methods-arrays.pdf
    methods-arrays.png
  topic.md
```

Variables & Objects Review



Methods & Arrays Review

```
age: 100
meow: function () {
  console.log(this.sound);
  return this.age;
},
```

A concise look at methods & Arrays

Variables & Objects Review

A concise tour of the structure of variables & objects in Javascript

variables-objects-review.md

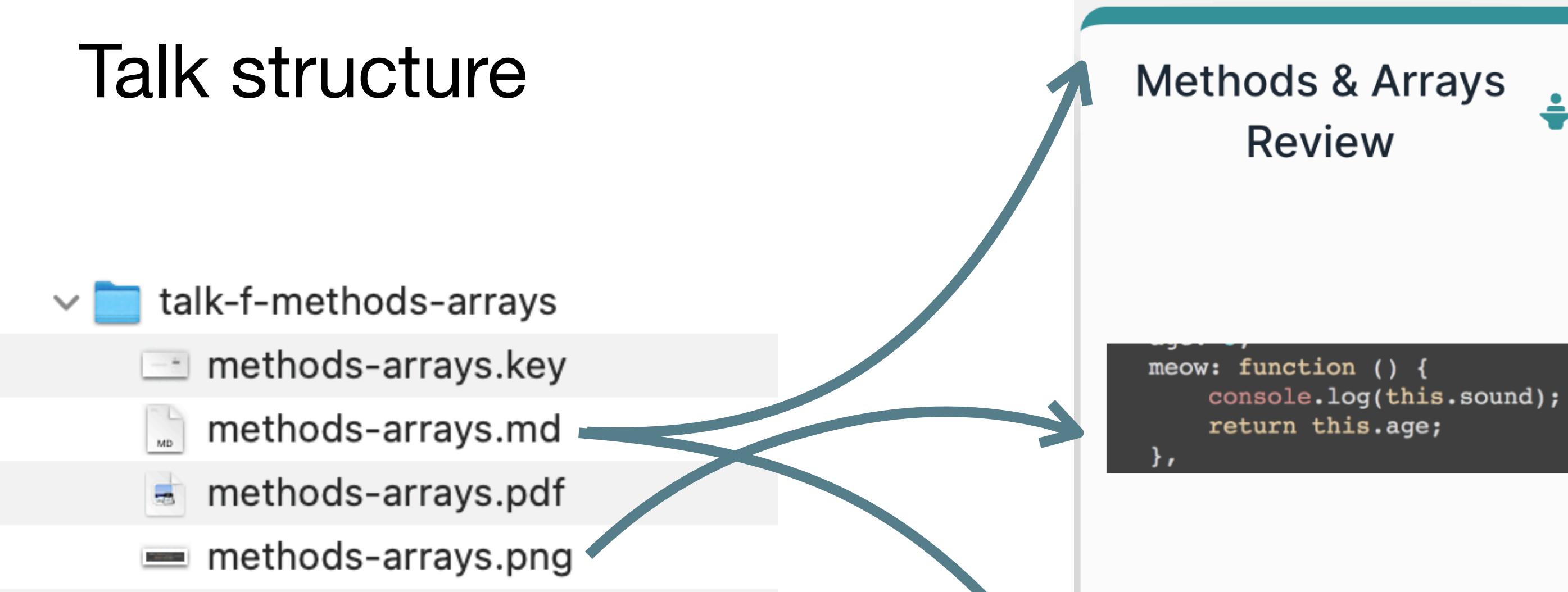
Javascript Variables, Objects & Methods

topic.md

Talk structure

all files
same name

- image
- pdf
- markdown



Methods & Arrays Review

```
age: 10,  
meow: function () {  
  console.log(this.sound);  
  return this.age;  
},
```

A concise look at methods
& Arrays

Methods & Arrays Review

A concise look at methods &
Arrays

Lab Structure

```
book-a
archives
archive.zip
img
01.jpg
02.jpg
03.png
04.png
main.png
00.Lab-01.md
01.01.md
02.02.md
03.03.md
04.04.md
05.05.md
06.Exercises.md
```

Lab-01: Objectives
01: Text
02: Tables, Lines and Images
03: Links and Code Blocks
04: Images
05: Katex
Exercises: Exercises & Archives

Links and Code Blocks

You can insert links in bullet points:

- <http://github.com>
- <http://bitbucket.dom>

More Code Block examples

```
publish(path, course) {
    const basePath = '../' + path + '/' + this.folder;
    futils.initEmptyPath(basePath);

    this.resources = this.talks.concat(this.labs);
    futils.copyFileToFolder(this.img, basePath);
    futils.writeFile(basePath + '/index.html', nunjucks.render('topic.html', this));

    futils.writeFile(basePath + '/ajaxlabel.html',
        nunjucks.render('ajaxlabel.html',
            { url: this.url.substring(5) + '/' + this.folder }));
    futils.writeFile(basePath + '/indexmoodle.html', nunjucks.render('indexmoodle.html', this));

    console.log(this.title);
    this.publishTalks(basePath);
    this.publishLabs(basePath, course);
}
```

courses > tutors-reference > topic-01-simple > book-a > 03.03.md > # Links and Code Blocks

1 **# Links and Code Blocks**
2
3 You can insert links in bullet points:
4
5 - <<http://github.com>>
6 - <<http://bitbucket.dom>>

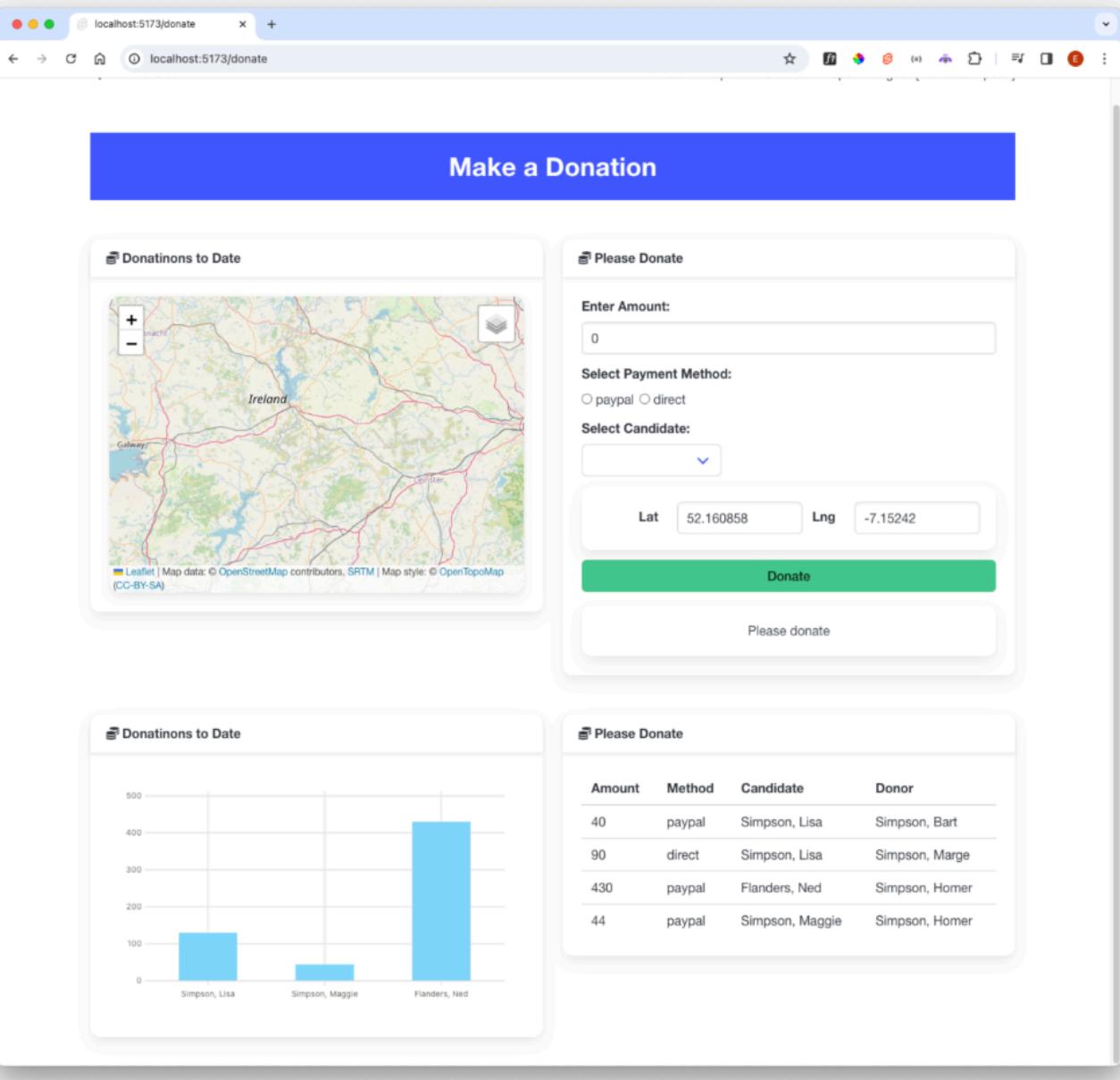
9 More Code Block examples

```
11 ~~~
12 publish(path, course) {
13     const basePath = '../' + path + '/' + this.folder;
14     futils.initEmptyPath(basePath);

15     this.resources = this.talks.concat(this.labs);
16     futils.copyFileToFolder(this.img, basePath);
17     futils.writeFile(basePath + '/index.html', nunjucks.render('topic.html', this));

18     futils.writeFile(basePath + '/ajaxlabel.html',
19         nunjucks.render('ajaxlabel.html',
20             { url: this.url.substring(5) + '/' + this.folder }));
21     futils.writeFile(basePath + '/indexmoodle.html', nunjucks.render('indexmoodle.html', this));

22     con ~/Documents/GitHub/tutors/courses/tutors-
23     thi reference/topic-03-media
24     this.publishLabs(basePath, course);
25
26 ~~~
27
28 } ~~~
29
30
31 This was autodetected as javascript. This one is html:
32
33 ~~~
```



Donation Dashboard

We will put these components to use now with a revised donation route:

Objectives

Leaflet

Map Route

Layers

Donations Markers

Popups

Donation Dashboard

Populate Dashboard Map

Live Map Update

Solution

The layout can be assembled like this:

```
<script lang="ts">
  //...
  import LeafletMap from "$lib/ui/LeafletMap.svelte";
  import DonationList from "$lib/ui/DonationList.svelte";
  //...
  //...
</script>

<div class="columns">
  <div class="column">
```

Each Lab written in Markdown

Donation Dashboard

We will put these components to use now with a revised donation route:

The layout can be assembled like this:

src/routes/donation/+page.svelte

```
~~~html
<script lang="ts">
    //...
    import LeafletMap from "$lib/ui/LeafletMap.svelte";
    import DonationList from "$lib/ui/DonationList.svelte";
    //...
    //...
</script>
```

```
<div class="columns">
  <div class="column">
    <Card title="Donations to Date">
      <LeafletMap height={30} />
    </Card>
  </div>
  <div class="column">
    <Card title="Please Donate">
      <DonateForm {candidateList} />
    </Card>
  </div>
</div>
```

```
</Card>
</div>
</div>
<div class="columns">
  <div class="column">
    <Card title="Donations to Date">
      <Chart data={donationsByCandidate} type="bar" />
    </Card>
  </div>
  <div class="column">
    <Card title="Please Donate">
      <DonationList {donations} />
    </Card>
  </div>
</div>
```

We will populate the map with markers in the next step.

2 Ways of Publishing a Module

Static/HTML

Dynamic/JSON

Static/HTML

Static/HTML

- Static Site
- Can be browsed offline (distribute zipped archive of course)
- Format ‘frozen’ at time of generation
- No analytics or presence features

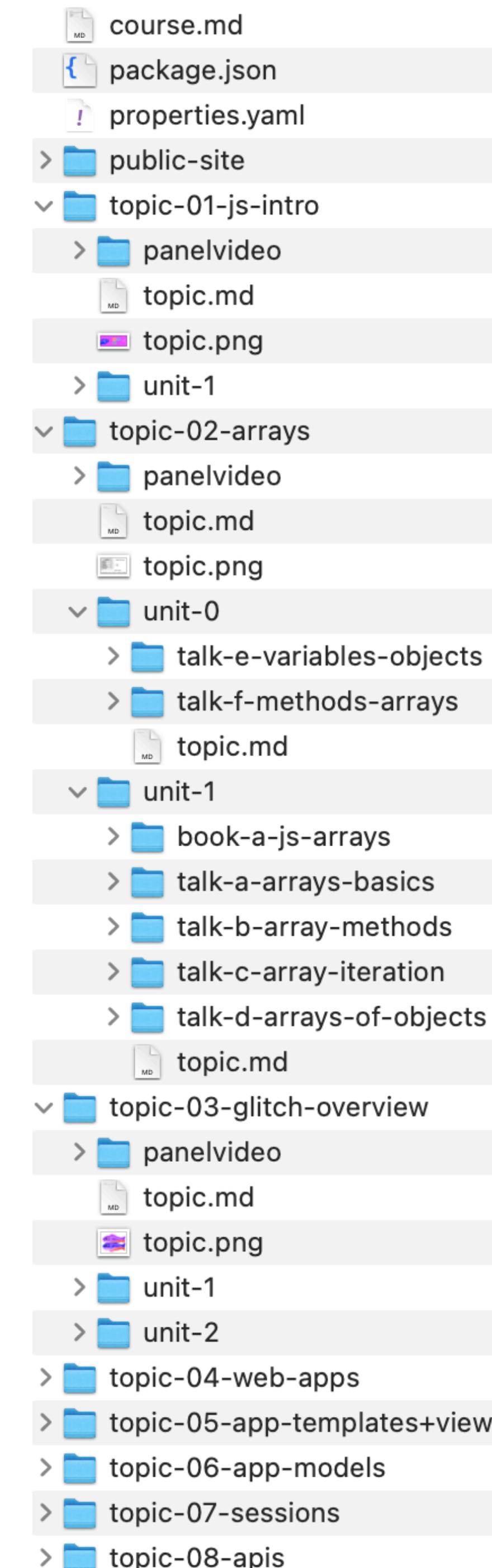
Dynamic/JSON

- Dynamic Site
- Browser through the Tutors Reader app
- Continuously updated and enhanced
- Included optional analytics or presence features

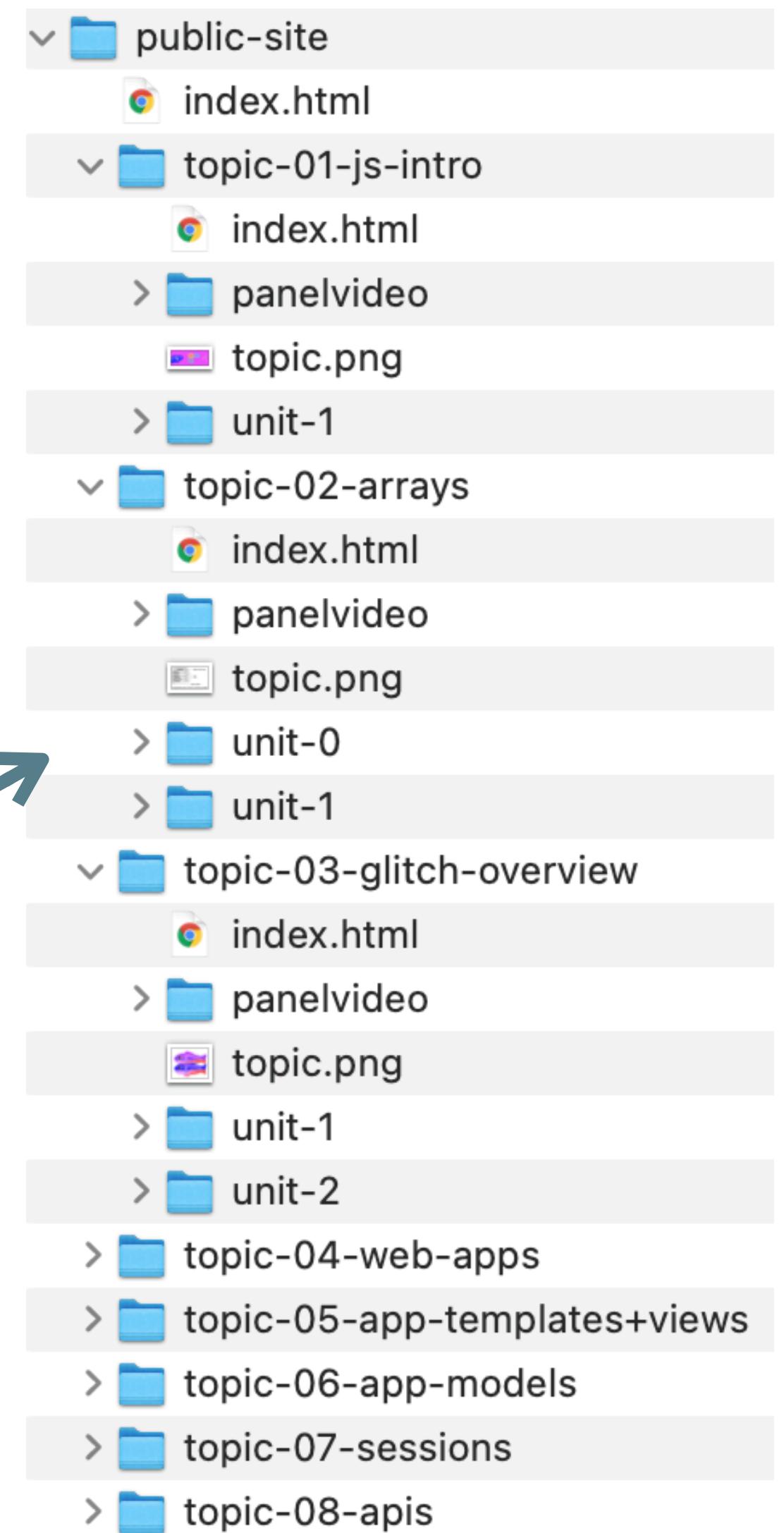


Static/HTML

npx tutors-html

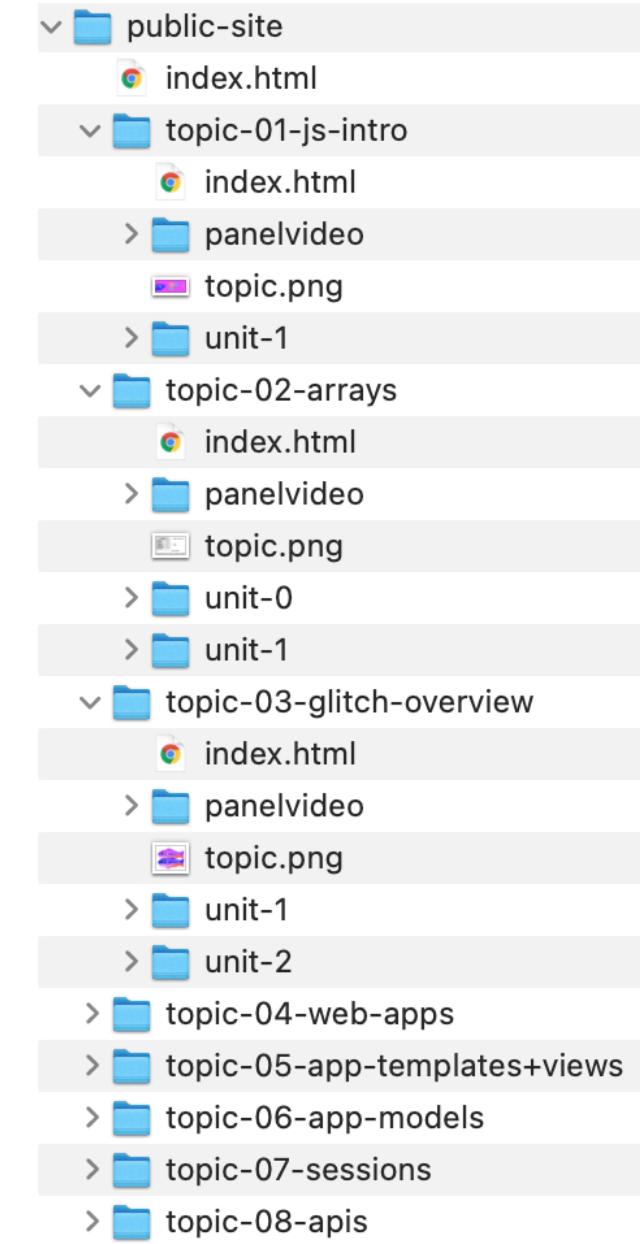


```
-bash
Eamonns-Mac-mini:web-development-2-2022 edeleastar$ npx tutors-html
Static course generator tutors-json 0.6.7 (tutors-lib: ^0.6.5)
::  Web Development II
  --> 1: Introducing Javascript (topic)
:: 1: Introducing Javascript
  --> Introducing Javascript (unit)
:: Introducing Javascript
  --> Module Overview (talk)
  --> JS Introduction (talk)
  --> Variables & Logic (talk)
  --> Const, Let & Objects (talk)
  --> Lab-01 JS Intro(lab)
  --> 1: Introducing Javascript (panelvideo)
  --> 2: Javascript Arrays (topic)
:: 2: Javascript Arrays
  --> Javascript Variables, Objects & Methods (unit)
:: Javascript Variables, Objects & Methods
  --> Variables & Objects Review (talk)
  --> Methods & Arrays Review (talk)
  --> Javascript Arrays (unit)
:: Javascript Arrays
  --> Arrays: Basics (talk)
  --> Array Methods (talk)
  --> Array Iteration (talk)
  --> Arrays of Objects (talk)
  --> Lab-02 JS Arrays(lab)
  --> 02: Javascript Arrays (panelvideo)
  --> 3: Glitch Overview (topic)
:: 3: Glitch Overview
```



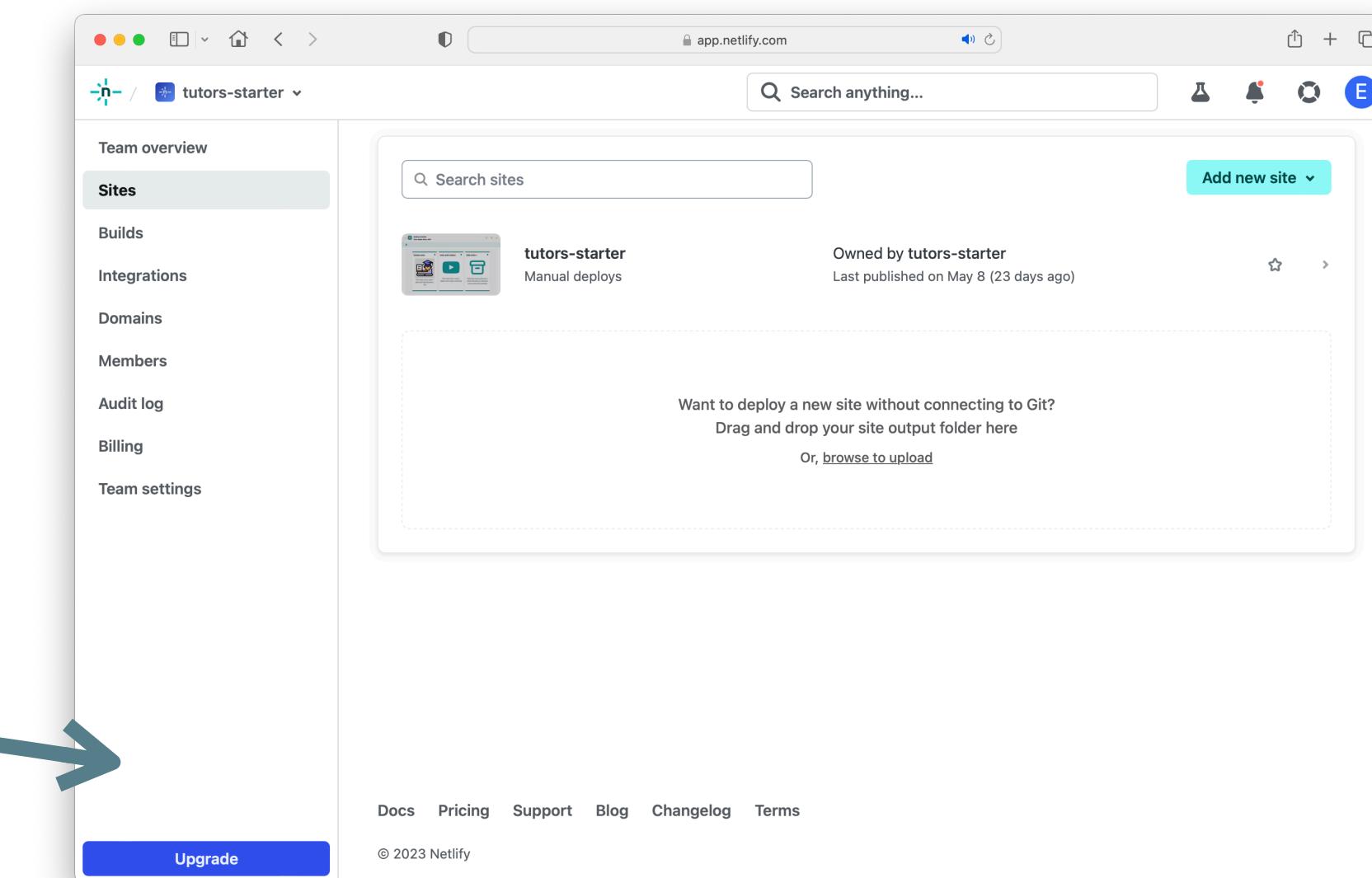
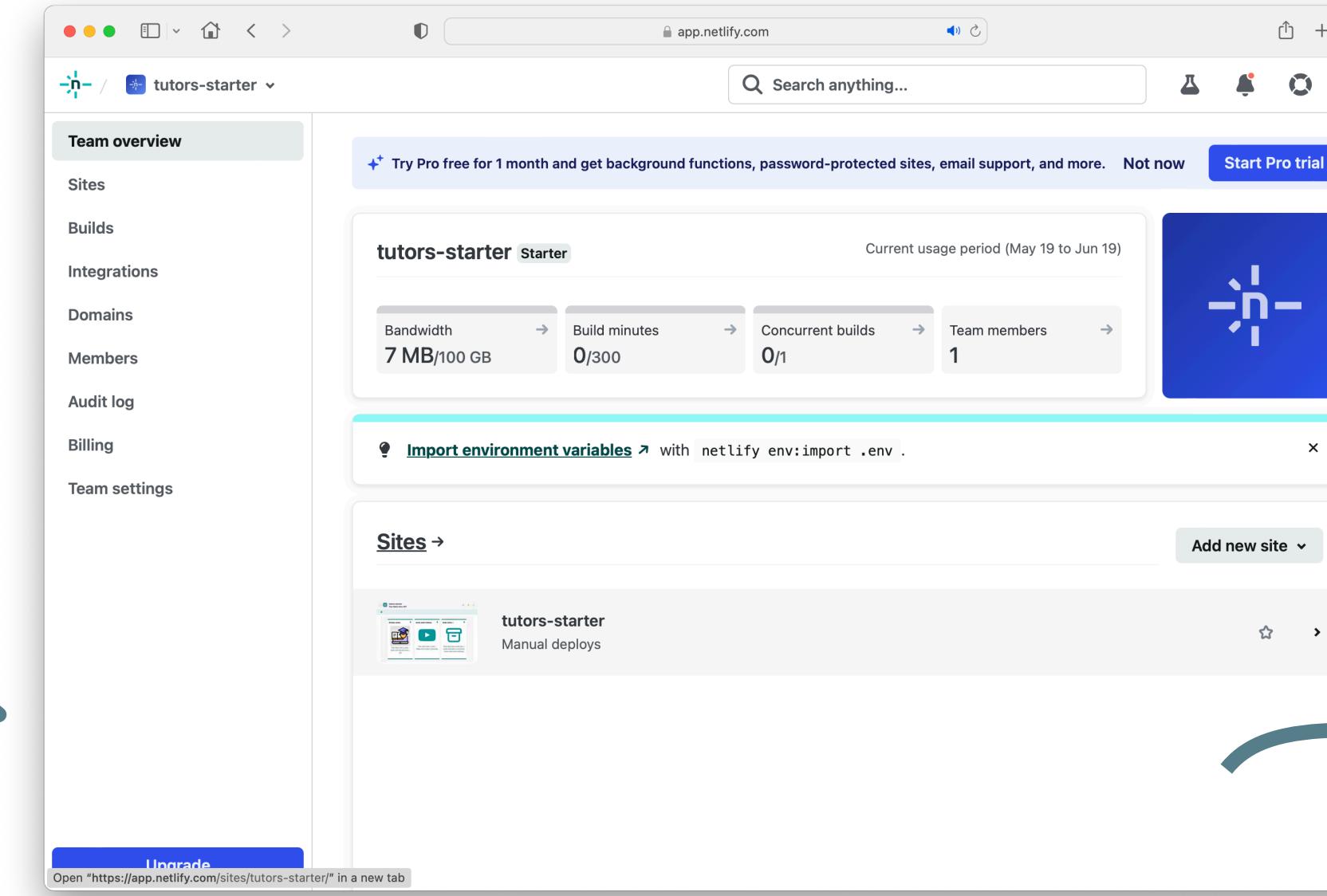
Command generates static site to 'public-site' folder

Static



A screenshot of a course titled 'Full Stack Web Development' by Eamonn de Leistar. The home page displays a grid of eight cards, each representing a module:

- 01: Node (Node.js logo)
- 02: Hapi.js (Hapi.js logo)
- 03: Joi (Joi validation library logo)
- 04: TDD (Test Driven Development diagram)
- 05: Models (MongoDB icon)
- 06: Assignment 1 (Clock icon)
- 07: APIs (API icon)
- 08: REST (RESTful API icon)

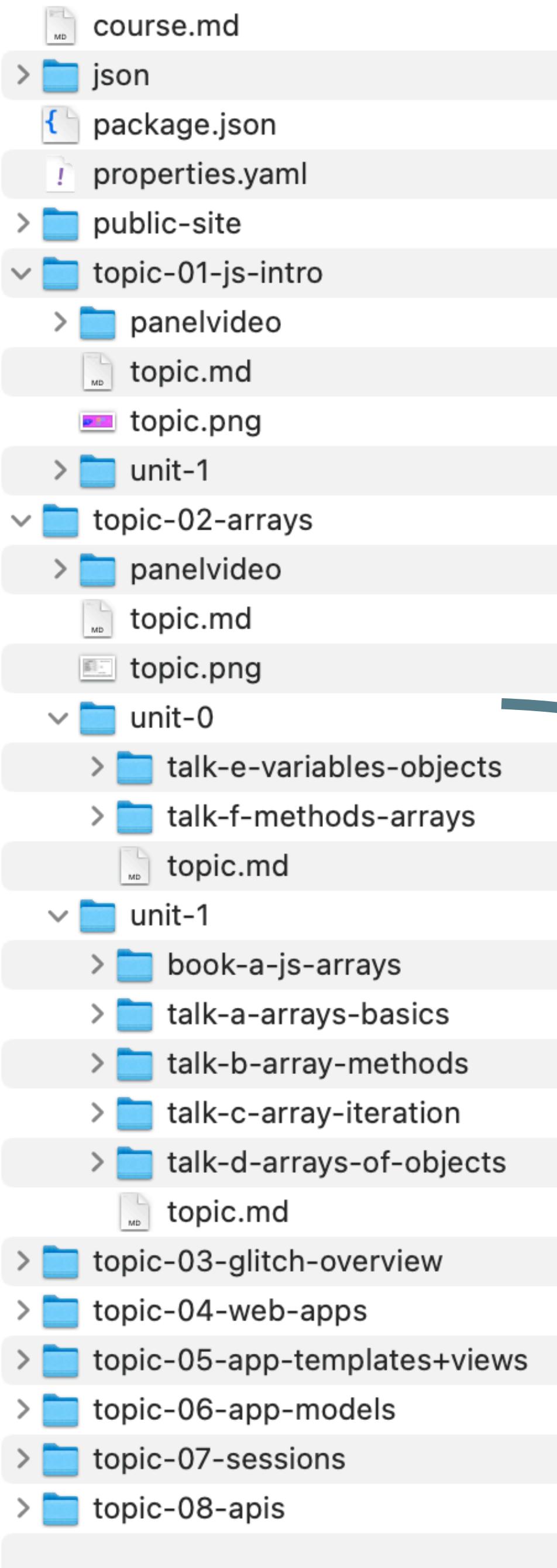


Drag & Drop Public Site folder
to Netlify Project

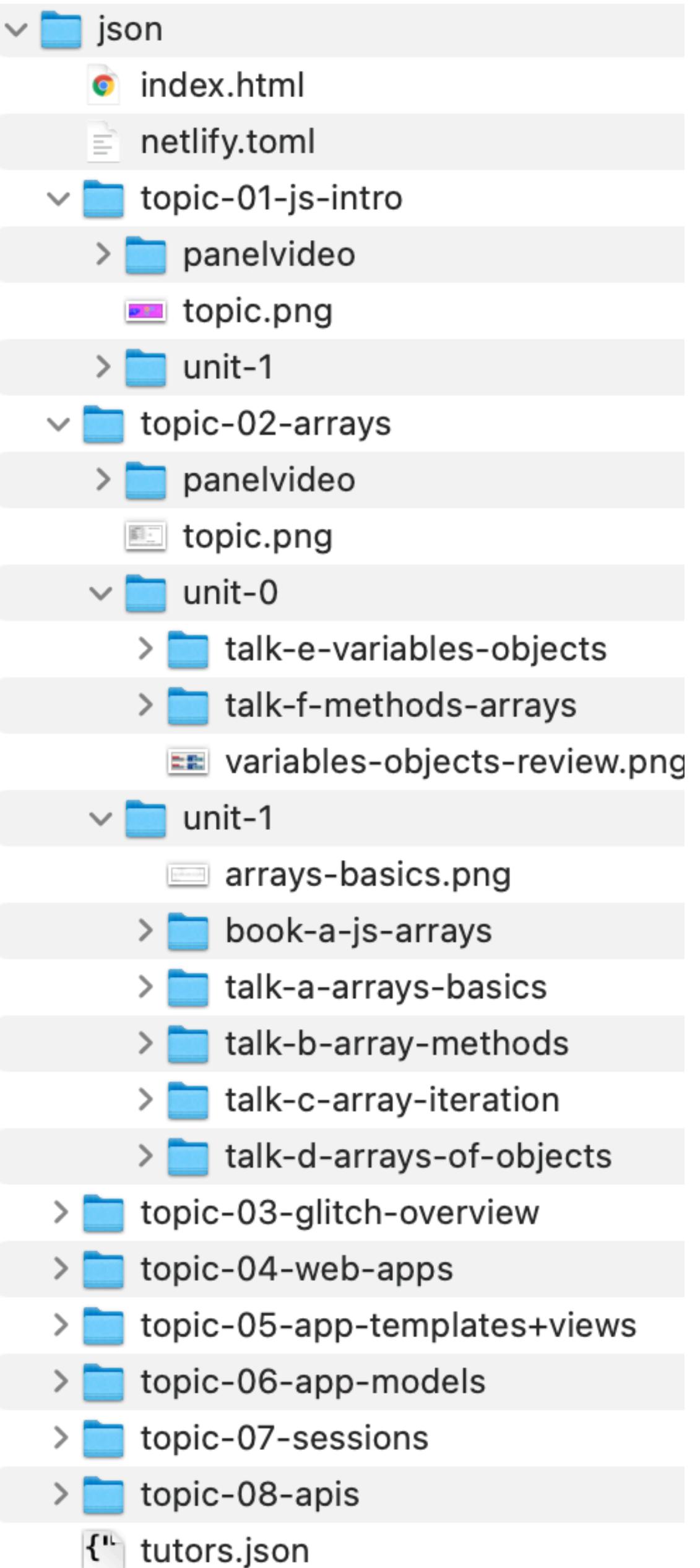
Deploys the site globally

Dynamic/JSON

npx tutors-json

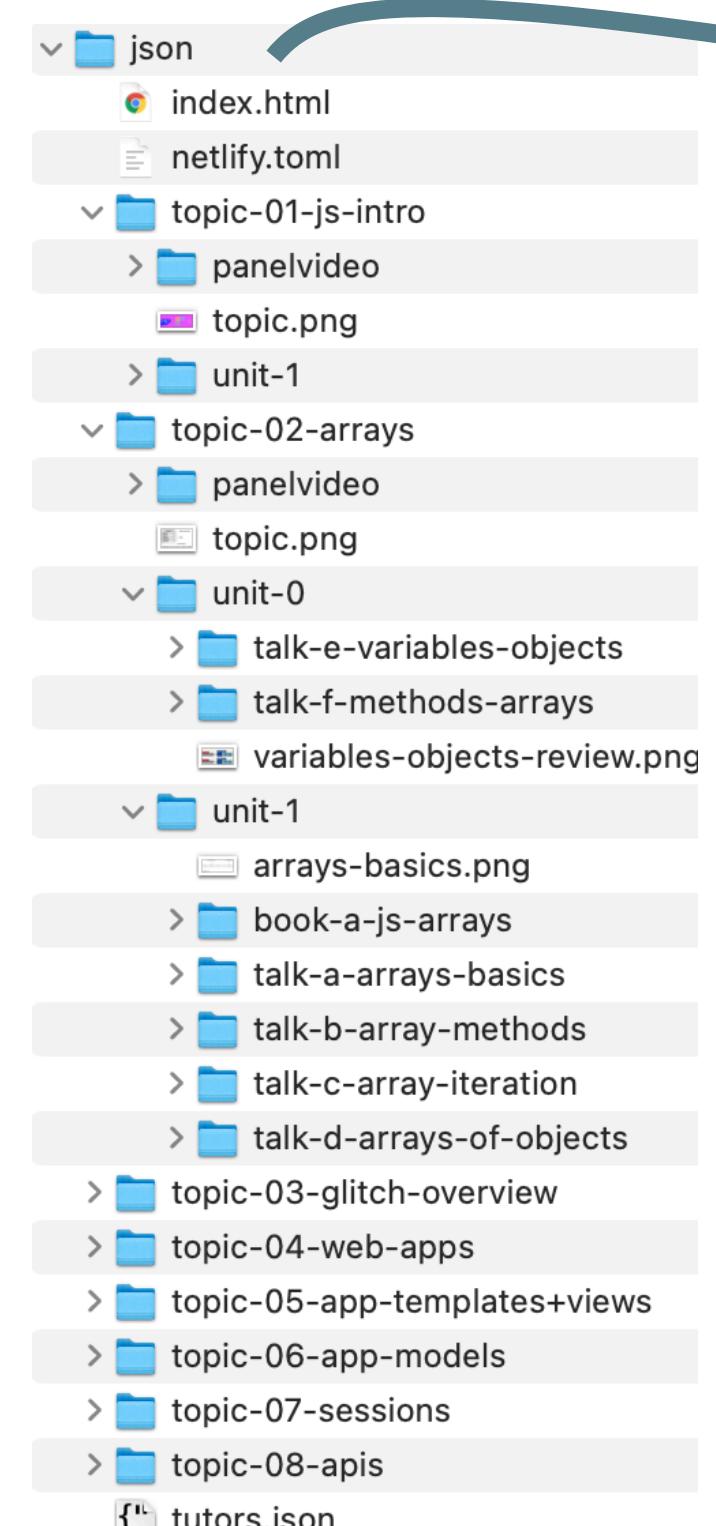


```
-bash
Eamonns-Mac-mini:web-development-2-2022 edeleastar$ npx tutors-json
Static course generator tutors-json 2.2.3 (tutors-lib: ^0.6.3)
::  Web Development II
  --> 1: Introducing Javascript (topic)
:: 1: Introducing Javascript
  --> Introducing Javascript (unit)
:: Introducing Javascript
  --> Module Overview (talk)
  --> JS Introduction (talk)
  --> Variables & Logic (talk)
  --> Const, Let & Objects (talk)
  --> Lab-01 JS Intro(lab)
  --> 1: Introducing Javascript (panelvideo)
  --> 2: Javascript Arrays (topic)
:: 2: Javascript Arrays
  --> Javascript Variables, Objects & Methods (unit)
:: Javascript Variables, Objects & Methods
  --> Variables & Objects Review (talk)
  --> Methods & Arrays Review (talk)
  --> Javascript Arrays (unit)
:: Javascript Arrays
  --> Arrays: Basics (talk)
  --> Array Methods (talk)
  --> Array Iteration (talk)
  --> Arrays of Objects (talk)
  --> Lab-02 JS Arrays(lab)
  --> 02: Javascript Arrays (panelvideo)
  --> 3: Glitch Overview (topic)
:: 3: Glitch Overview
  --> Introducing Glitch (unit)
```



Command generates static site to 'json' folder

Dynamic



The Netlify Team overview page shows a site named 'tutors-starter' in the Starter plan. It displays usage statistics: Bandwidth 7 MB/100 GB, Build minutes 0/300, Concurrent builds 0/1, and Team members 1. A 'Start Pro trial' button is visible. The 'Sites' section lists 'tutors-starter' with 'Manual deploys'.

The Netlify Site details page for 'tutors-starter' shows it was last published on May 8 (23 days ago). It has 'Manual deploys'. A note says 'Want to deploy a new site without connecting to Git? Drag and drop your site output folder here'.

A course content dashboard titled 'Full Stack Web Development' by Eamonn de Leistar. It features a grid of 8 lessons: 01: Node (Node.js icon), 02: Hapi.js (Hapi.js icon), 03: Joi (Joi icon), 04: TDD (TDD icon), 05: Models (MongoDB icon), 06: Assignment 1 (Assignment icon), 07: APIs (API icon), and 08: REST (REST icon). Each lesson has a brief description below its title.

Drag & Drop Public Site folder
to Netlify Project

Deploys the Course Globally

Dynamic

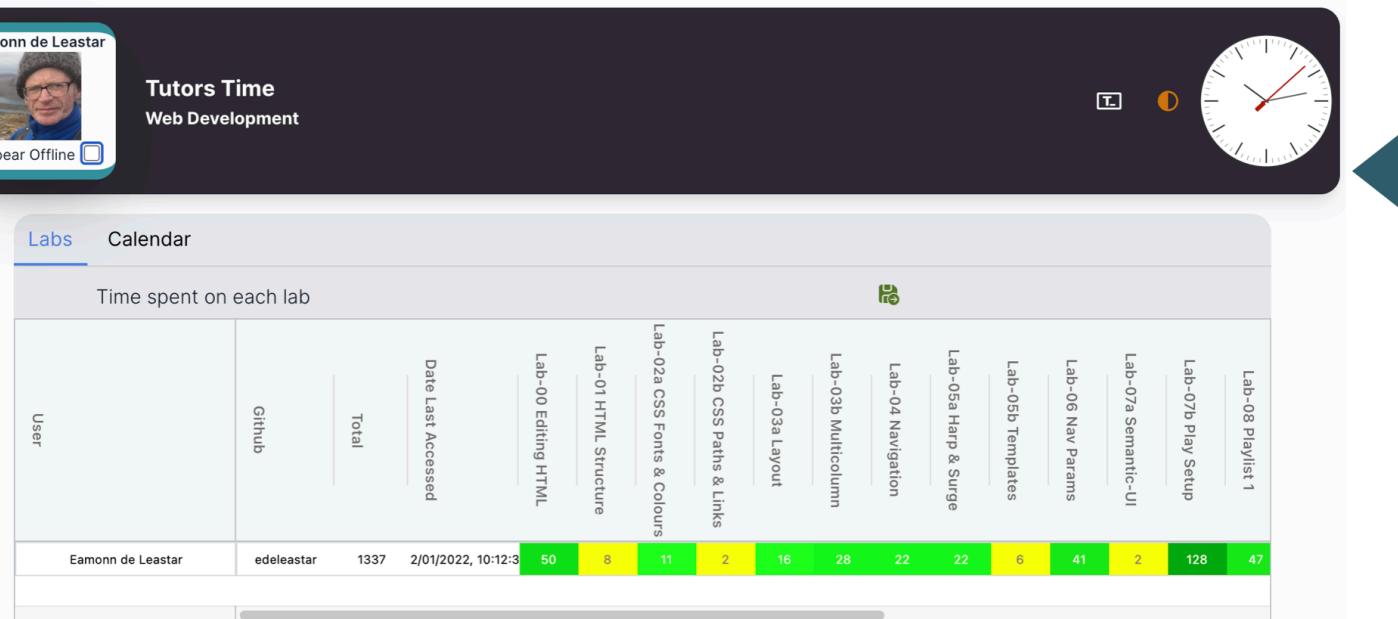
The image shows a digital course interface with a dark header bar. In the top left is a yellow gear icon with 'JS' inside. To its right is the title 'Web Development II' and the subtitle 'Eamonn de Leistar, WIT Computing'. The top right features a search icon, a user profile picture of a man, and a menu icon. Below the header is a navigation bar with icons for home, back, forward, and other course-related functions.

The main area displays eight course modules as cards:

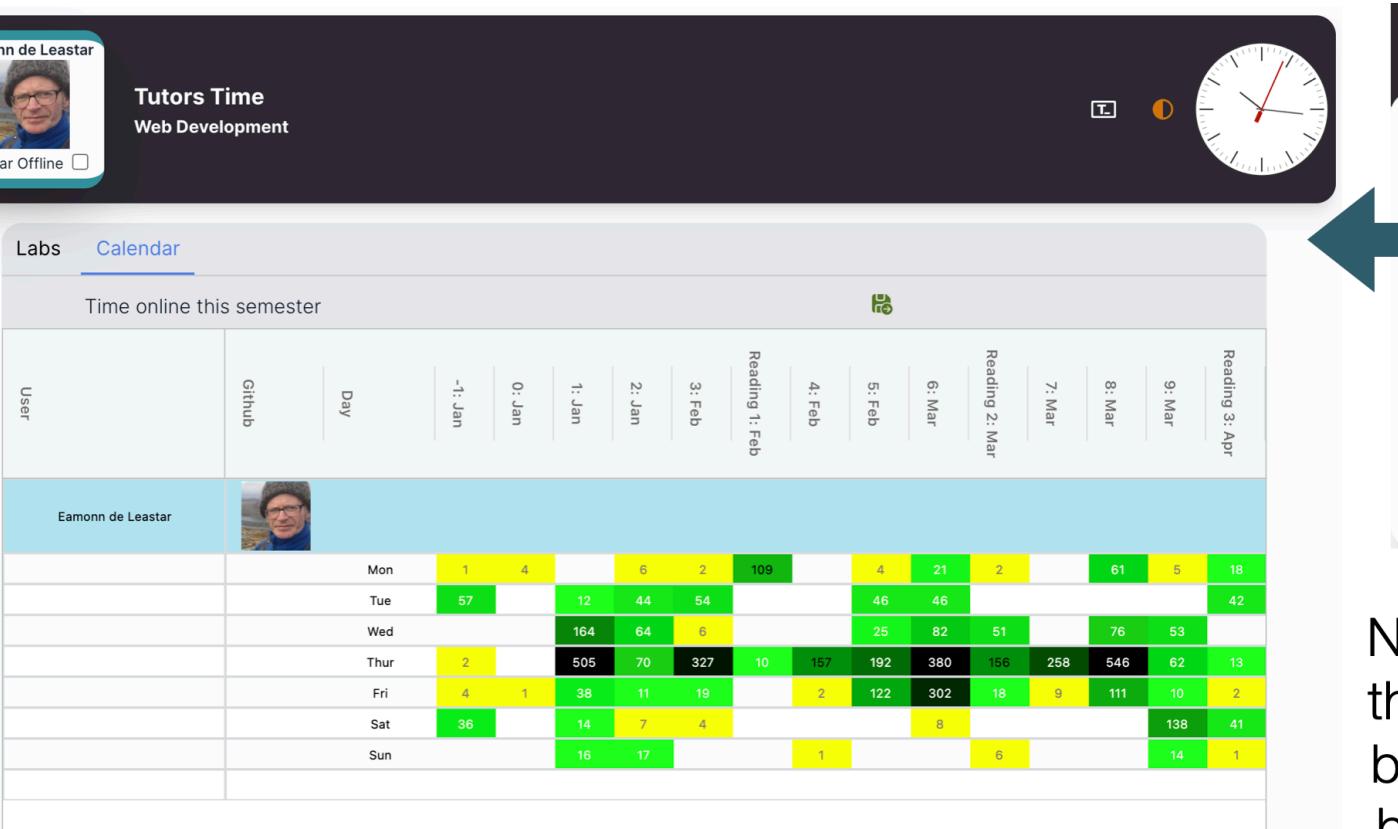
- 1: Introducing Javascript**: An introduction to the very basics of the Javascript Language. It includes a pink background image of two fish and a grid with letters A, B, C, D, E.
- 2: Javascript Arrays**: Exploring Javascript arrays in detail. It features a diagram comparing an array to a column of data, showing an array named 'myCar' with elements like 'Chev', 'Ford', etc., and labels for 'Name of the array', 'Data', and 'Index number'.
- 3: Glitch Overview**: Overview of the module + introduction to the Glitch platform. It has a background image of two stylized fish.
- 4: Web Applications**: Build your first Glitch app, a simple static playlist web site. It includes a blue background image of geometric shapes.
- 5: Templates & Routes**: Explore templating in more detail. Enhanced the routing behaviour. It features a diagram of a template engine with three gears.
- 6: Forms**: Display a form, accept user input. It includes a diagram showing the interaction between View, Model, Controller, and User.
- 7: Sessions**: Implement user account management using sessions. It features a diagram of session components: HttpSession, Cookies, Hidden Field, URL-Rewriting, and State Management, along with Partial Session Tracking.
- 08: APIs**: Weather · APIs · Charts. It includes a large teal 3D geometric shape.

properties.yaml

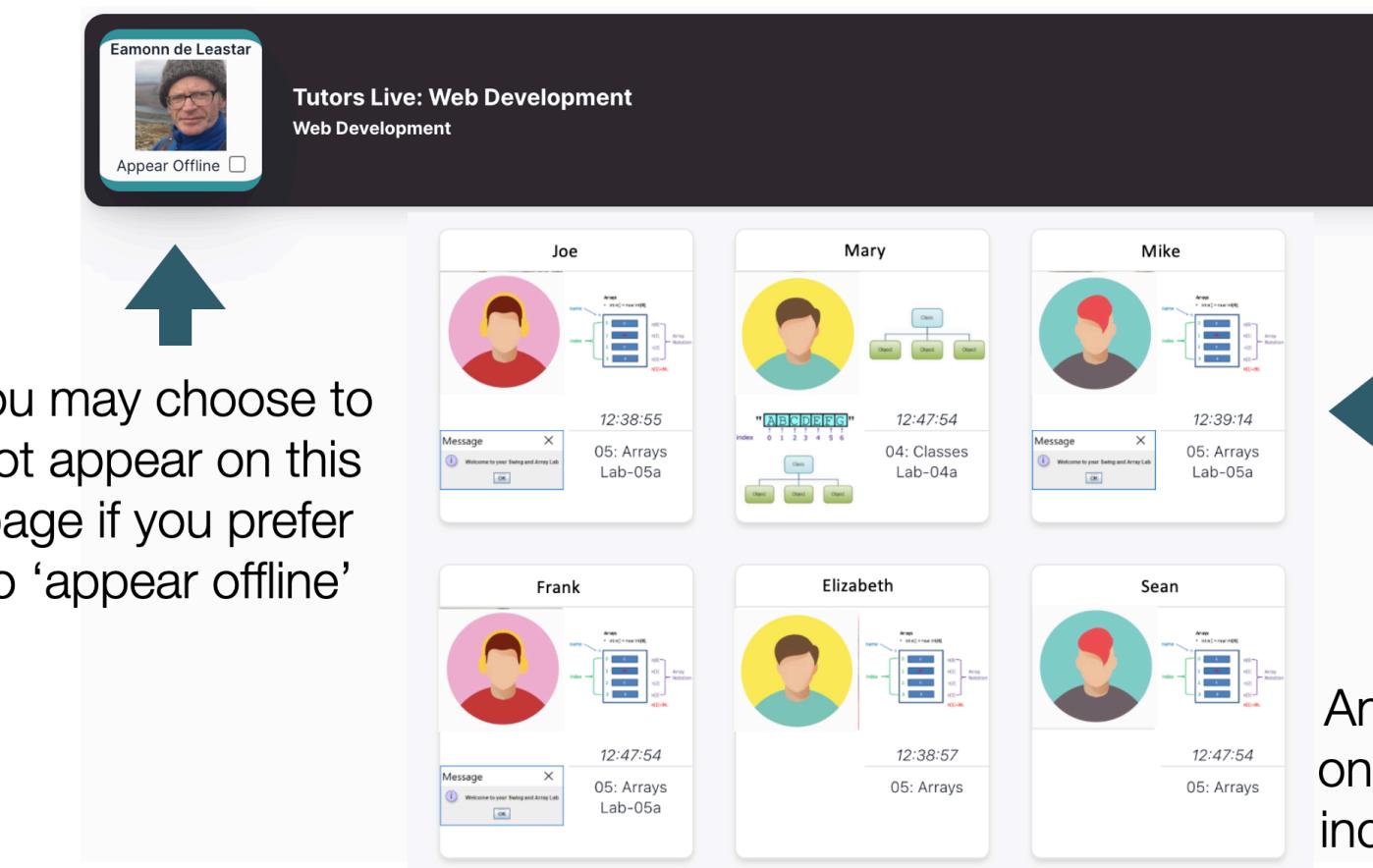
Auth : 1



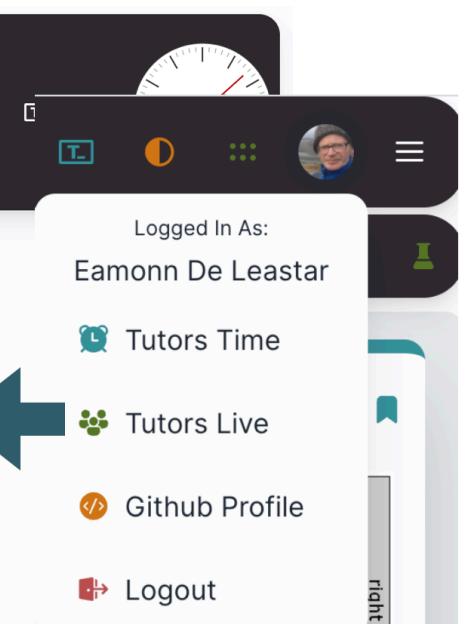
Number of minutes the Each lab has been active in your browser (estimate)



Number of minutes
the Course has
been active in your
browser (estimate)



I may choose to appear on this page if you prefer ‘appear offline’



Any students currently online will appear here, indicating the topic/lab they may be working on

Tutors



Open Web Learning Toolkit

The Educator Experience



The ***Educator Experience*** prioritises the creation of a **guided paths** through a curriculum via the creation of learning materials that are **autonomous, structurally aligned, composable, auditable, extensible, versioned and independent**.