



Bremen University of Applied Sciences

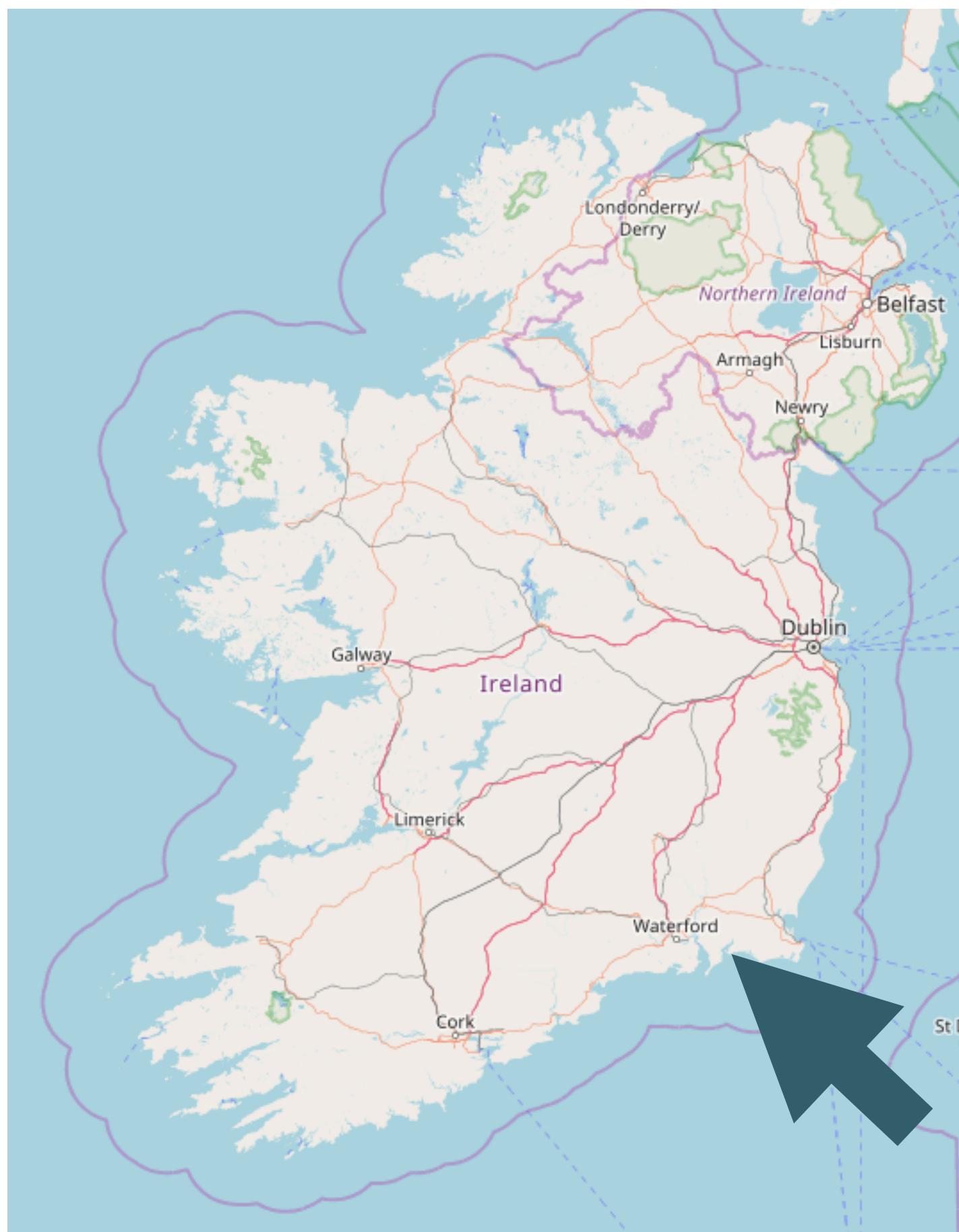
International Week 2024

<https://tutors.dev/course/tutors-workshop-2024>



Eamonn de Leastar
eamonn.deleastar@setu.ie





Waterford



Waterford (from Old Norse *Veðrafjørðr*, meaning "ram (wether) fjord", Irish: *Port Láirge*) is a city in Ireland. It is in the South-East Region, Ireland and is part of the province of Munster. The city is situated at the head of Waterford Harbour. It is the oldest^{[2][3]} and the fifth most populous city in the Republic of Ireland. It is the eighth most populous city on the island of Ireland.



About SETU

We want SETU to become a leading European technological university, transforming lives through collaboration and innovation.



The world is changing. And we are changing with it.

South East Technological University is the first technological university in south east Ireland. This gives us an exciting platform to establish our community as a centre for innovation, opportunity, and growth.

Through exceptional learning and collaboration, we aim to transform the ambitions of learners, researchers, and businesses across the south east and beyond.



South East Technological University is a university-level institution in the South-East of Ireland with over 18,000 students and 1,700 staff.

SETU offers tuition and research programmes in various areas from Higher Certificate to Degree to PhD.





An Open Learning Web Toolkit

A collection of open source components & services supporting the creation of transformative learning experiences using open web standards.

Demo

Live

Source

Documentation

Gallery

Simulator

The screenshot shows a 'Reference Course' interface with a toolbar at the top featuring icons for search, layout, and other functions. Below the toolbar, there are eight cards illustrating different layout and content types:

- Simple:** Units with presentations, labs + resources.
- Sidebar:** Presentations, links + labs in side bar.
- Videos:** Video + Presentations and labs with videos.
- Panel Note:** A Note can be a topic's content.
- Panel Talk:** A Talk can be a topic's content.
- Reference:** Example of all learning resource types.
- Ordering:** Explicit sorting of learning objects.
- Iconify:** Using Iconify defined icons instead of image files.

<https://tutors.dev>

The Values of the project

The Learner Experience



The **Learner Experience** prioritises web interactions that are **engaging, contextual, linkable, searchable, accessible** and **responsive**. In addition the experience should foster a sense of **community** and **connection** among fellow learners.

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**.

The Developer Experience



The **Developer Experience** prioritises the specification and implementation of **robust, well documented, loosely coupled components & services**, integrated into a **coherent toolkit** open to contributions from **diverse skill sets**.

17: Donation Applications
Full Stack Web Development

Search Layout

full-stack-1-17

Higher Diploma in Computer Science
Full Stack Web Development

Watch Later Share

Watch on YouTube

Donation Applications

Introducing Donation

Donation Applications

hapi-01-shell

hapi-02-donate

Enter Amount: 0

Select Payment Method: paypal direct

Select Candidate:

SPARKS DIPLOMA
HEA
Waterford Institute of Technology

Watch on YouTube

Programming Fundamentals
Colm Dunphy, Peter Windle, WIT

Assignment Specifications

00: Induction

01: First Contact

02: Selection & Iteration

Higher Diploma in Computer Science 2023
Department of Computing & Mathematics, WIT

HDIP 23

03: Methods

04: Classes

05: Arrays

06: Games

Semester Three: January-June 2024

Workshop Three

Full Stack Web Development 1

Developer Operations

Full Stack Web Development 2

Semester 3 Schedule

Friday January 12th, 2024

cloud computing · scripting · scaling · automation · monitoring

javascript · node · apis · tdd · frameworks · front-end · sveltekit · typescript

javascript · SPA · react · APIs · front-end

timetables · semester calendars · assessment schedules

Labs

Lab-17a Charts

Search Layout

01: Node

02: Hapi.js

03: Joi

04: TDD

05: Models

Models

Mongo DB Fundamentals

- Introducing NoSQL DBs
- Setting Up Mongo
- Accessing Mongo

Mongo Model

SQL Aggregate functions Database

This is a new page:

routes/charts/+page.svelte

```
<script>
import TitleBar from "$lib/TitleBar";
import MainNavigator from "$lib/MainNavigator";
import Chart from "svelte-frappe";
import { round } from "mathjs";

let data = [
  {
    category: "Category A",
    value: 100
  },
  {
    category: "Category B",
    value: 200
  },
  {
    category: "Category C",
    value: 300
  }
];
```

Using Round()

- To round a numeric value to a whole number (or to 2 decimal places for example), use `round`.
- `Round(12.75)` returns 13
- `Round(12.7512)` returns 12.75

05: SQL: Select statement

SQL

Select statement

Introduction

SQL Select statement

SQL Select statement Lab

Aggregate functions

SQL Aggregate functions

SQL Aggregate functions Lab

Join clause

SQL Join

SQL Join 1 Lab

SQL Join 2 Lab

Date function

SQL Date functions

SQL Date functions Lab

6



Reference Course

A reference course containing all supported learning objects

Search

Layout

Reference Cour...

Edit this Page



Reference Course Example

Simple



Units with presentations,
labs + resources

Sidebar



Presentations, links + labs
in side bar

Videos



Video + Presentataions
and labs with videos

Panel Note



A Note can be a topic's
content

Panel Talk



A Talk can be a topic's
content

Reference



Example of all learning
resource types

Ordering



Explicit sorting of learning
objects

Iconify



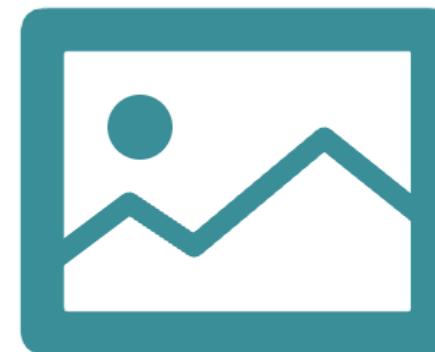
Using Iconify defined icons
instead of image files

<https://reader.tutors.dev/course/reference-course>

Create & Edit a Tutors Course

Creating & Publishing a Tutors Course

Learner Experience



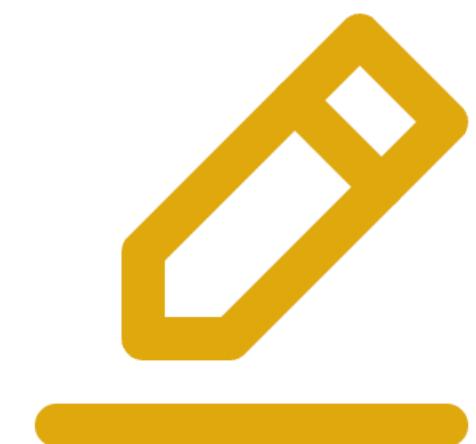
An overview of the Tutors Learner Experience

Creating a Course



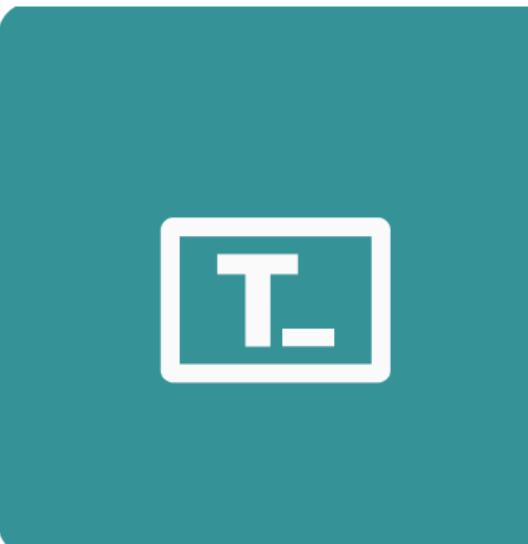
Creating a Tutors Course

Editing a Course

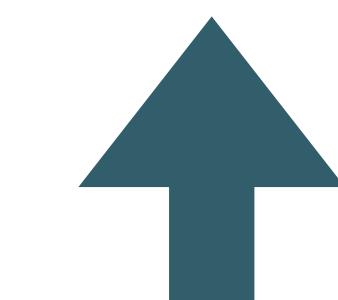


Editing and republishing a course

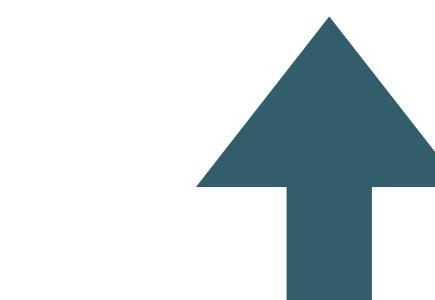
Tutors Reference Manual



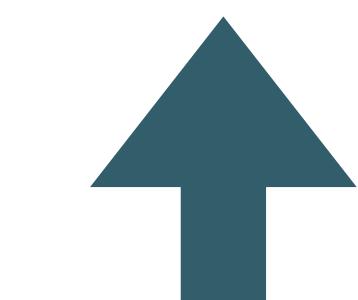
Complete Reference Manual for Tutors



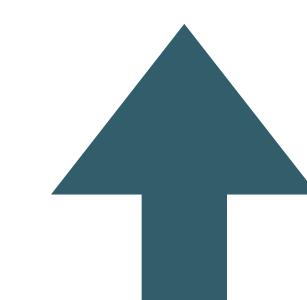
Overview of
Tutors UX



Overview of
Course
Creation



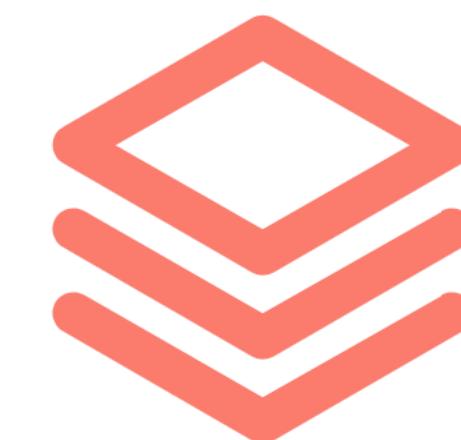
Course
Structure



Tutors User
Guide

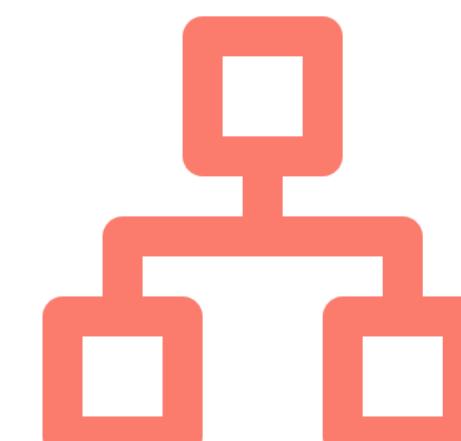
Tutors Labs

Create



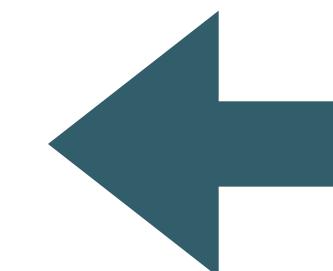
Create and publish a Tutors course

Edit



Explore and edit the elements of a Tutors course

Guides on
creating +
publishing
a course



Tutors Theming

The screenshot shows a web application interface for "Full Stack Web Development" by Eamonn de Leastar. The top navigation bar includes a profile icon, search bar, and layout options. A dropdown menu titled "Layout" is open, showing "Toggles" (Dark Mode, Compact) and "Themes". The "tutors" theme is selected, highlighted with a green background. Other themes listed are dyslexia, skeleton, seafoam, and vintage. A large blue arrow points from the right towards the theme selector.

Full Stack Web Development
Eamonn de Leastar

Search Layout

0

Edit this Page

Themes

tutors

dyslexia

skeleton

seafoam

vintage

01: Node

node.js

The fundamentals of Node. A first Node application.

02: Hapi.js

hapi

The Hapi application Framework

03: Joi

joi

Validation with Joi

04: Test

05: Models

Incorporate Mongo Models

06: Assignment 1

V grading rubric

Concept, detail and grading rubric

07: APIs

API

Expose an API from an application

08: REST

RESTful

Resful API implementations

Theme
Selector

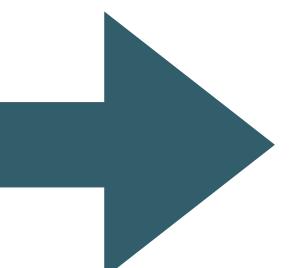
Tutors Theming

The screenshot shows a web application interface for "Full Stack Web Development" by Eamonn de Leistar. The top navigation bar includes icons for help, file, search, and layout, along with a user profile and notification count of 0. A dropdown menu titled "Layout" is open, showing options for "Toggles" (Dark Mode, Compact), "Themes" (tutors, dyslexia, skeleton, seafoam, vintage), and a "Test" section. The main content area displays eight cards representing different topics:

- 01: Node (Node.js logo) - The fundamentals of Node. A first Node application.
- 02: Hapi.js (Hapi logo) - The Hapi application Framework
- 03: Joi (Joi logo) - Validation with Joi
- 04: Test (Test icon)
- 05: Models (MongoDB icon) - Incorporate Mongo Models
- 06: Assignment 1 (Assignment icon) - Concept, detail and grading rubric
- 07: APIs (API icon)
- 08: REST (RESTful icon) - Expose an API from an application

*Theme
Selector*

Design
System
used by
Tutors



The UI toolkit for Svelte and Tailwind.

Skeleton allows you to create adaptive and accessible interfaces for web apps of any shape or size.

[Get Started →](#) [Learn More](#)

Search

Friendly Adaptive Customizable

Skeleton @SkeletonUI

UI toolkit for Svelte and Tailwind.
50 Following 500 Followers

Design

A circular interface diagram with a central skull icon, surrounded by a search bar, a progress bar, and social media follower counts.

Theme Generator

Toggle the "Enable Preview" option to begin creating a new theme. The entire documentation site will update as you progress. You can navigate to different sections without losing your settings as long as you do not refresh the page. Disabling the preview will reset back to your original theme.

Enable Preview Randomize Colors

Primary Text & Fill Color: Black

Secondary Text & Fill Color: White

Tertiary Text & Fill Color: Black

Success Text & Fill Color: Black

Preview

primary secondary tertiary

success warning error

surface primary secondary tertiary

glass success warning error

Fonts

Base: mono Headings: mono

Text Color

Light Mode: Black Dark Mode: Primary 50

Border Radius

Base: 9999px Container: 8px

Border Size

Base: 1px

Docs

Introduction Get Started Quickstart

Essentials

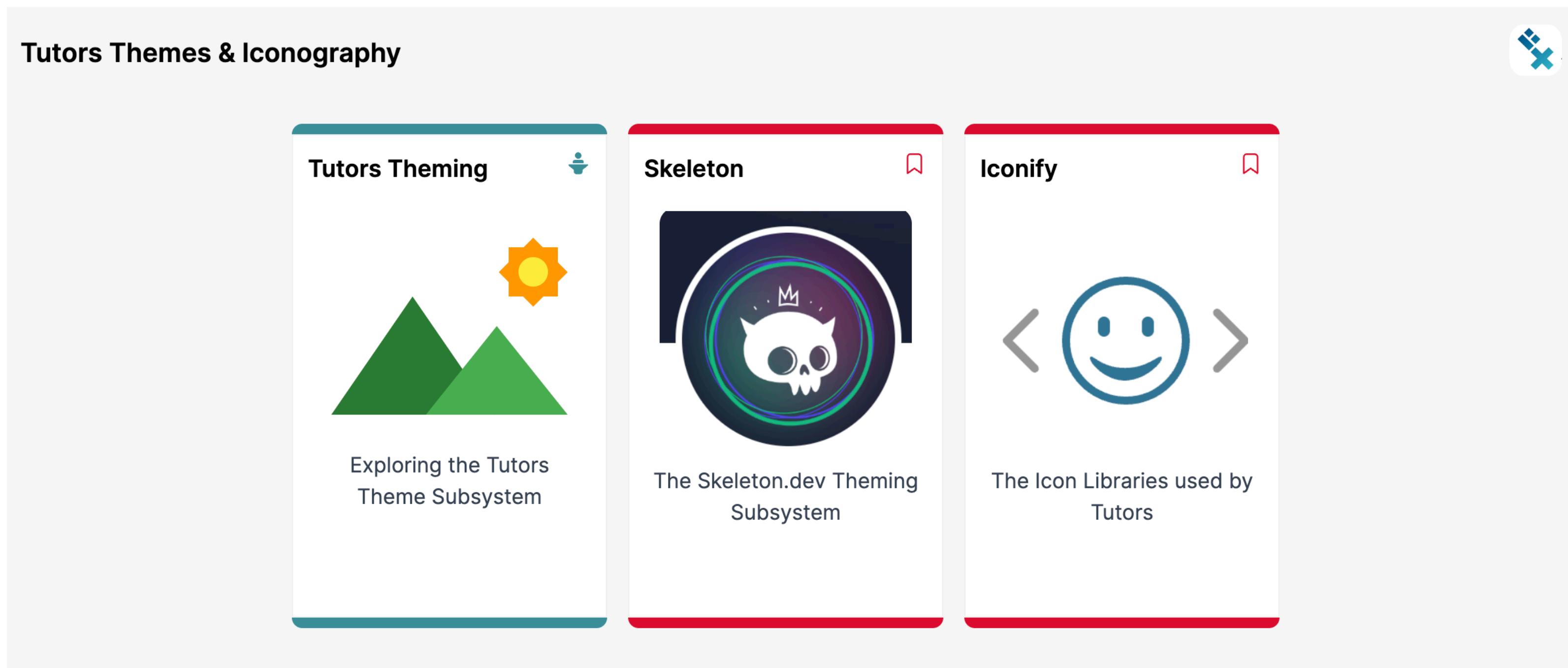
Themes Colors Styling Design Tokens Variants Transitions Dark Mode

Resources

Theme Generator Figma

Theme designer

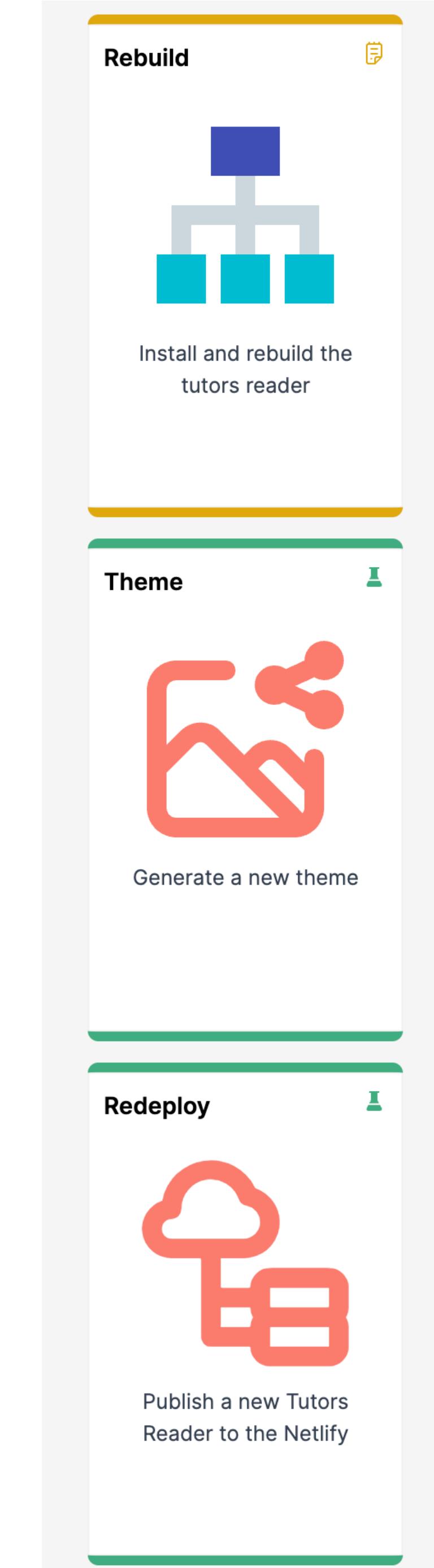
Tutors Theming



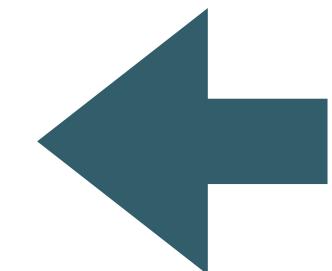
Overview of
Tutors Themes

Skeleton
Design
Systems

Icon Library
used by Tutors



Guides on
Rebuilding,
Theming &
deploying
Tutors



Tutors Learning Experience

Unit Panel

This is a note with at TOC

This is the intro to the main page.

[Part 1](#)
[Part 2](#)
[Part 3](#)
[Part 4](#)



[Watch on YouTube](#)

Panel Video

Lecture **Lab-01**

This talk has a pdf + a video with start/end times
This one just has a video, no PDF
A regular lab but supported by a video

Varied
Media
Units

An example of a side unit
Learning objects with SVG images
Panel talk_promote presentation to topic

Unit 1 Title

Panel Video

Lecture **Lecture**

A short summary of the talk, no more than two sentences. Avoid bullet...

Lab-01

A set of practical instructions or a walk-through

Panel Video

Varied
Media
Units

1 of 1
Tutors Starter Presentation.pdf

Replace with your own slide deck in a .pdf format!

Side Unit

Lab-01

A set of practical instructions or a walk-through

Lab-01

A set of practical instructions or a walk-through

Note Example
Resource I
Github Repo 1
Web Site

Lab-01
This is a note with at TOC
Lecture 1

Lab-01: Objectives

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

Note Example
Resource I
Github Repo 1
Web Site
Lab-01
This is a note with at TOC
Lecture 1

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('index.html', {
    url: this.url.substring(5) + '/' + this.folder
  }));

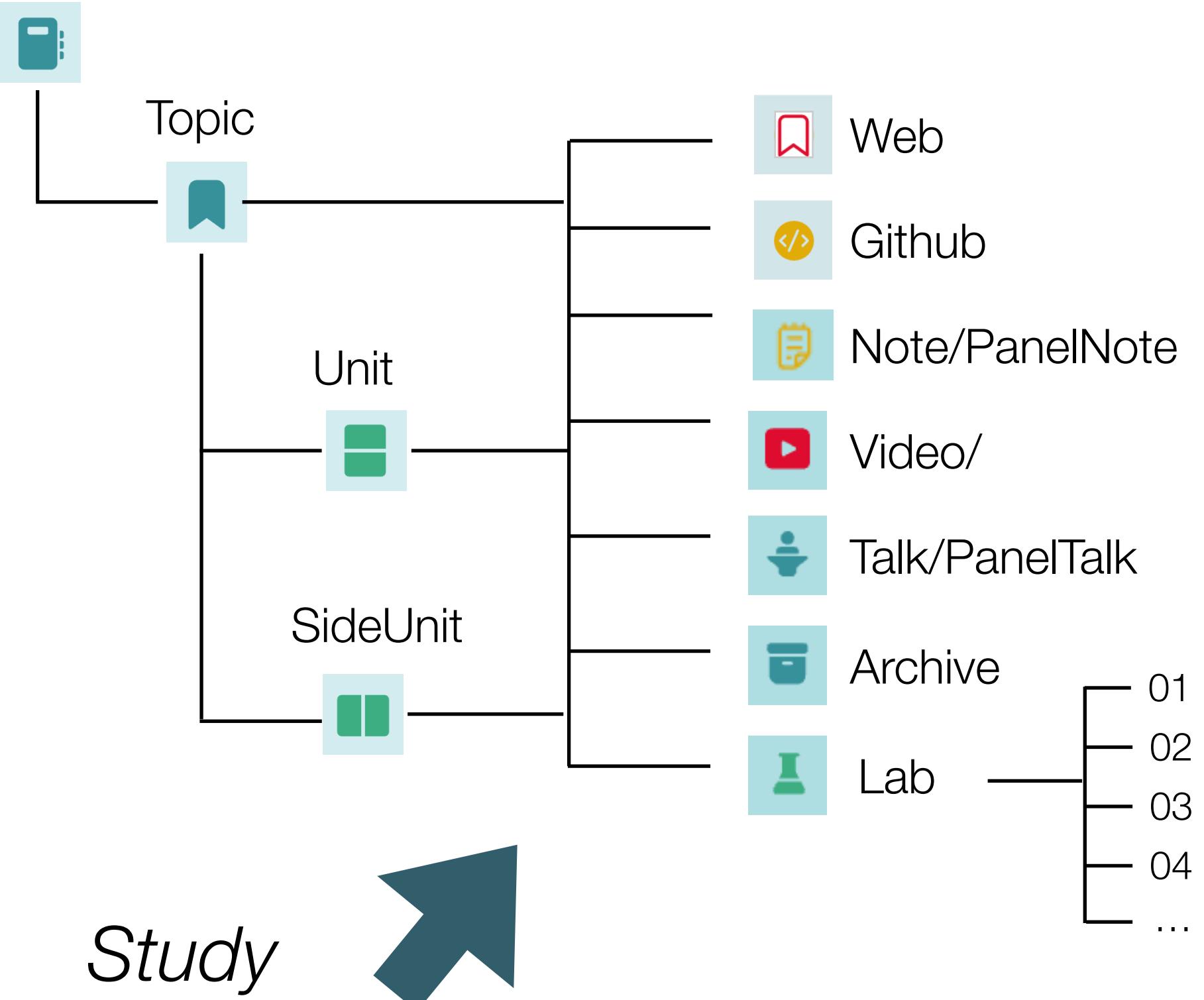
  futils.writeFile(basePath + '/ajaxlabel.html', nunjucks.render('ajaxlabel.html', {
    url: this.url.substring(5) + '/' + this.folder
  }));

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

Note Example
Resource I
Github Repo 1
Web Site

Tutors Learning Experience

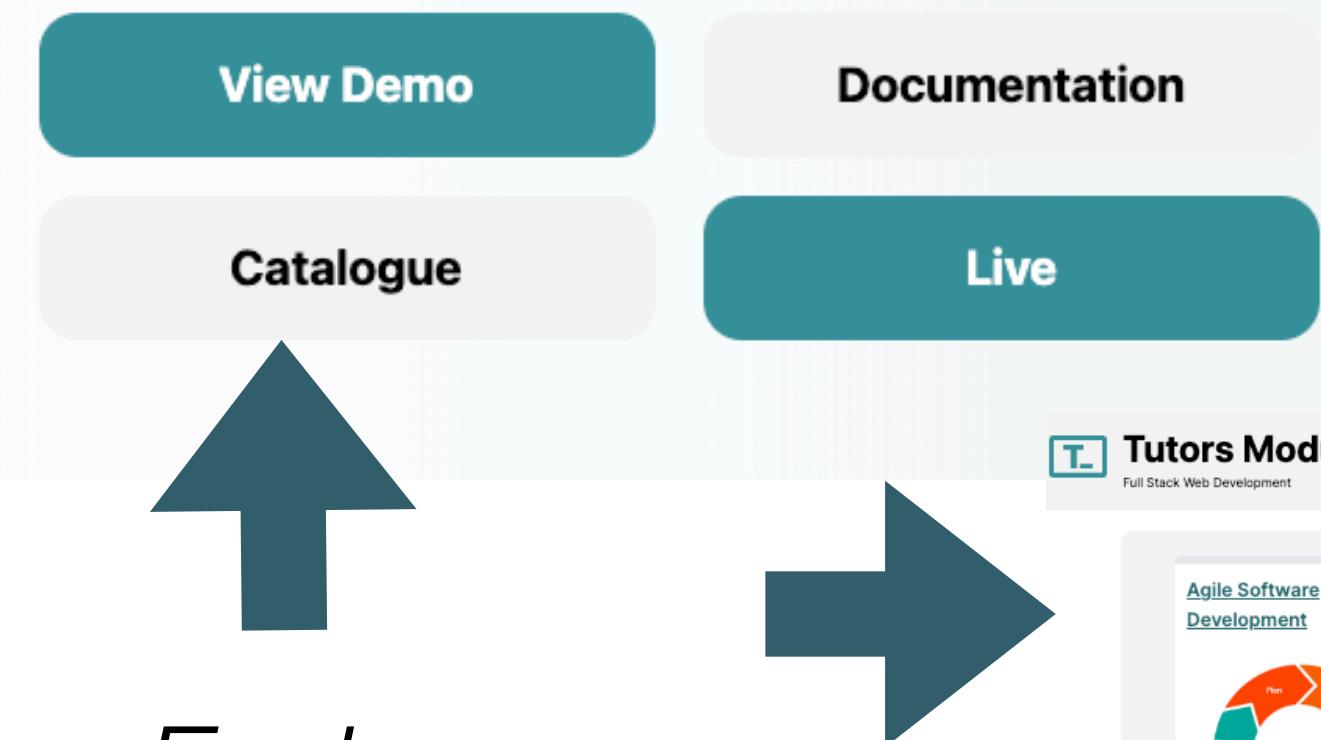
Course



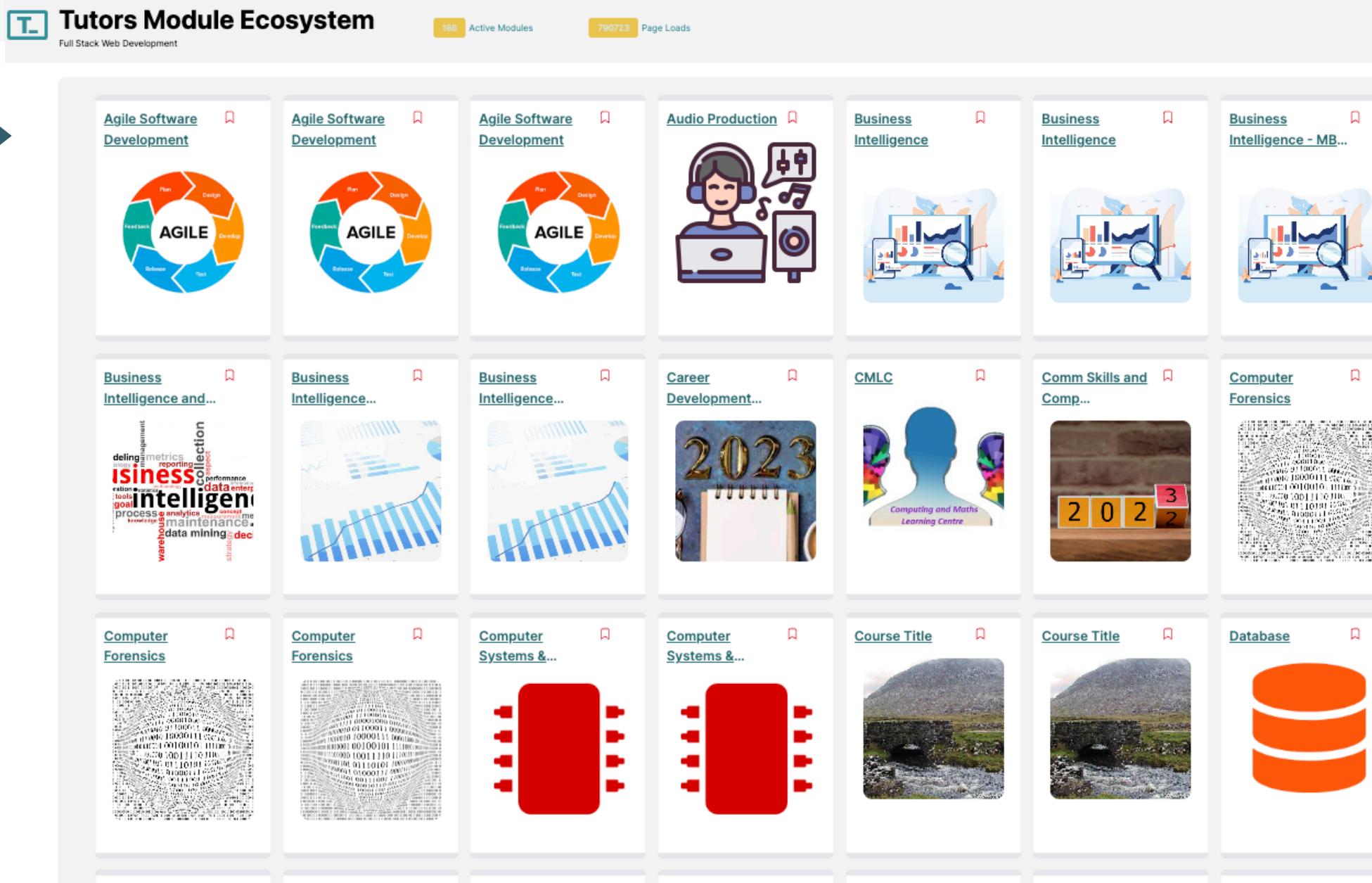
*Study
Course
Structure*

An Open Learning Web Toolkit

A collection of open source components & services supporting the creation of transformative learning experiences using open web standards.



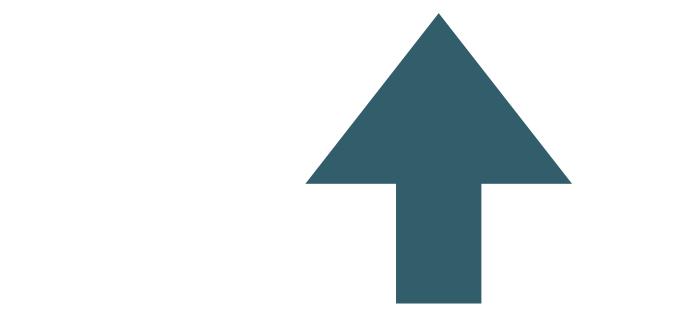
*Explore
Catalogue*



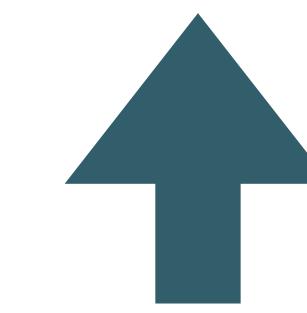
Tutors Learning Experience

The screenshot shows a grid of four cards:

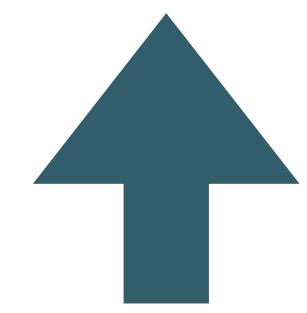
- Tutors Module Catalogue**: Features a diagram with three nodes: a blue circle at the top, a teal diamond in the middle, and a blue circle at the bottom. Arrows show a flow from the top circle to the diamond, and from the diamond to the bottom circle. Below the diagram is the text "A large collection of Tutors Modules".
- Tutors Example Programme**: Shows a yellow thumbnail image of a document titled "HDIP 22". Below the thumbnail is the text "A complete programme delivered on Tutors (any github account to access)".
- Figma**: Displays a colorful abstract logo composed of overlapping orange, red, purple, and blue shapes. Below the logo is the text "A design/prototyping tool".
- Penpot**: Shows a black icon of a box containing several pencils. Below the icon is the text "An Open Source Alternative to Figma".



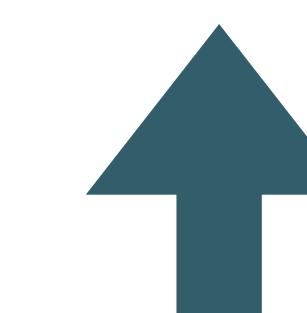
Tutors Module Catalogue



*Complete
Multi-Course
Programme*



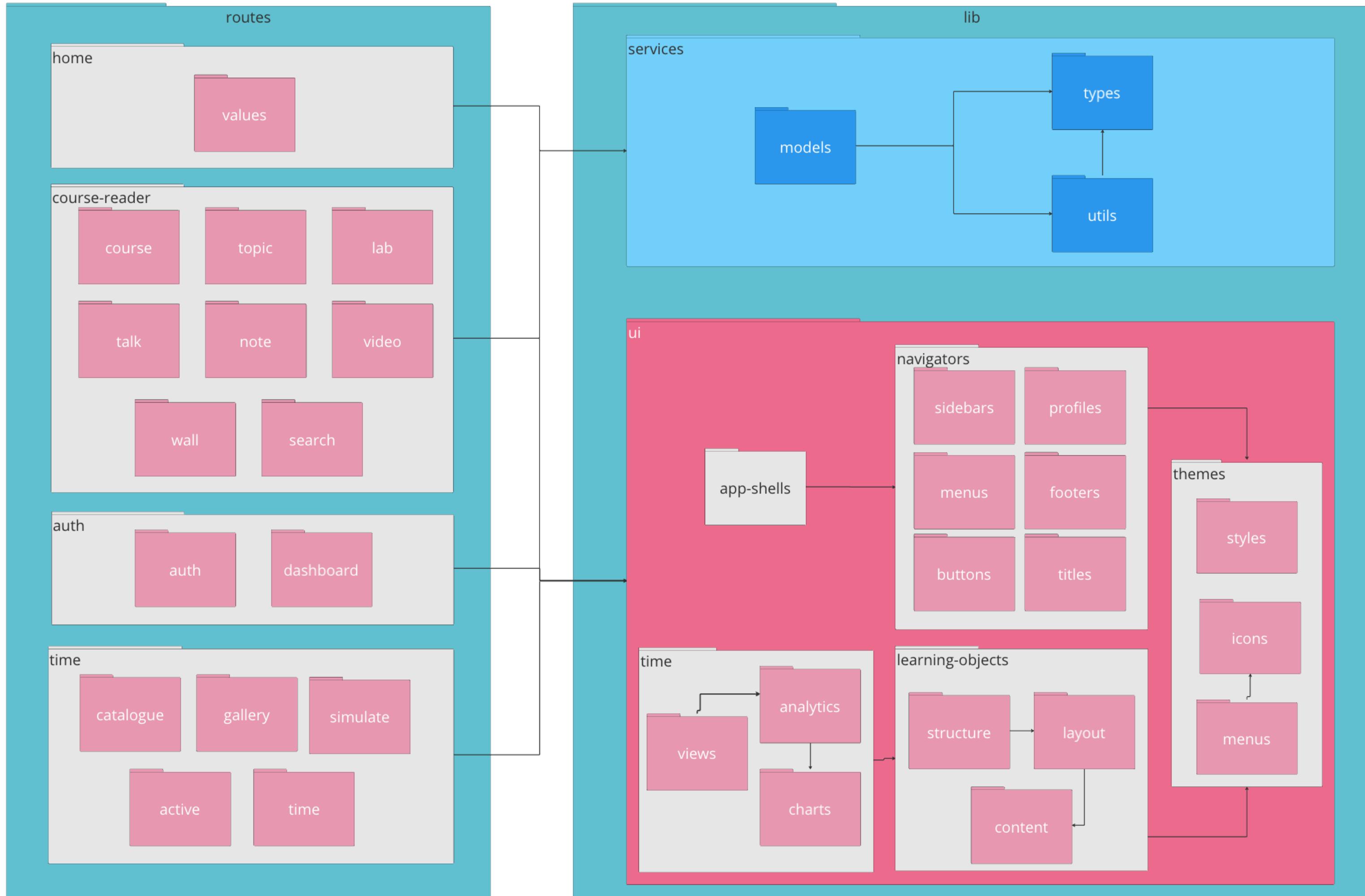
*Figma
Prototyping
Tool*



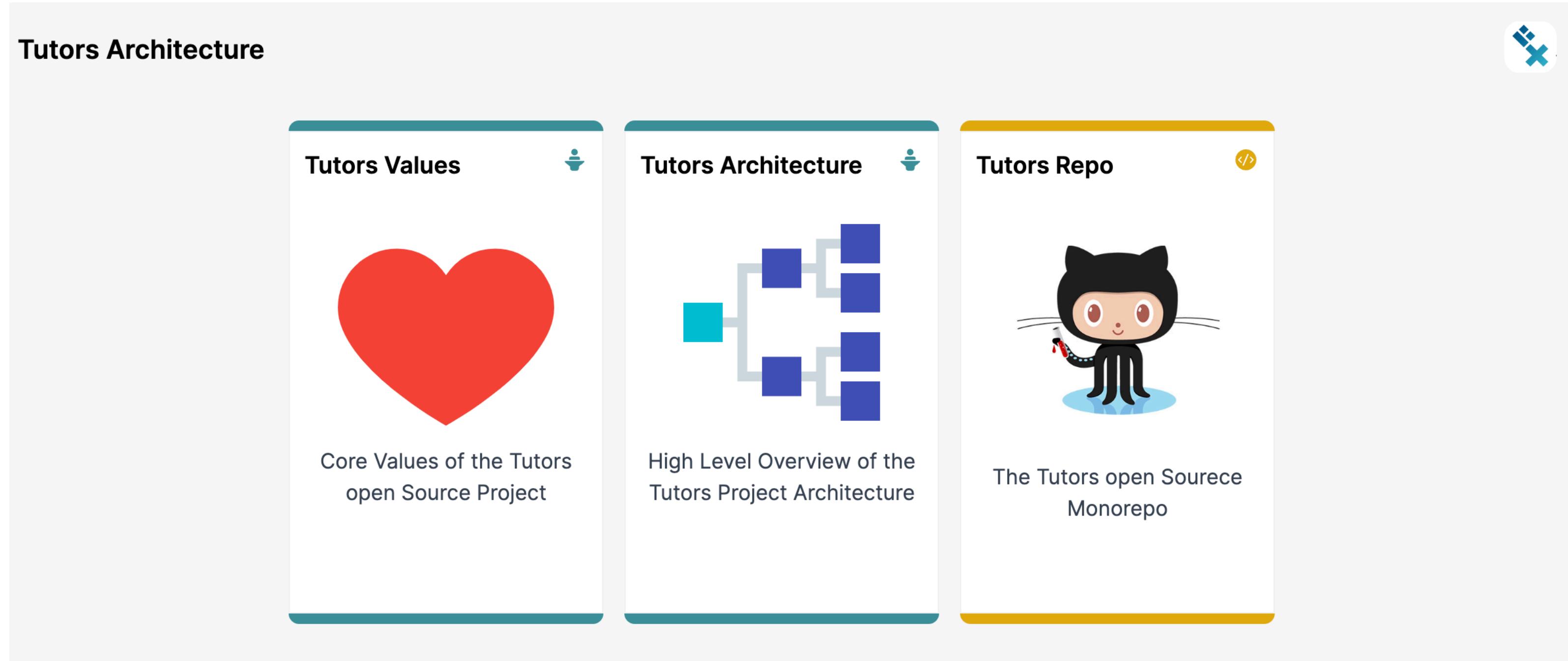
*Open Source
Figma
Alternative*

Tutors Architecture

```
✓ src
  ✓ lib
    ✓ services
      > models
      > types
      > utils
        TS analytics.ts
        TS course.ts
        TS firebaseAnalytics.ts
        TS presence.ts
        TS supabaseAnalytics.ts
      > ui
        TS environment.ts
        TS stores.ts
      ✓ routes
        > (auth)
        > (course-reader)
        > (home)
        > (time)
        S +error.svelte
        TS +layout.server.ts
        S +layout.svelte
        TS +layout.ts
        TS app.d.ts
        S app.html
        D app.postcss
        TS hooks.server.ts
      > static
```



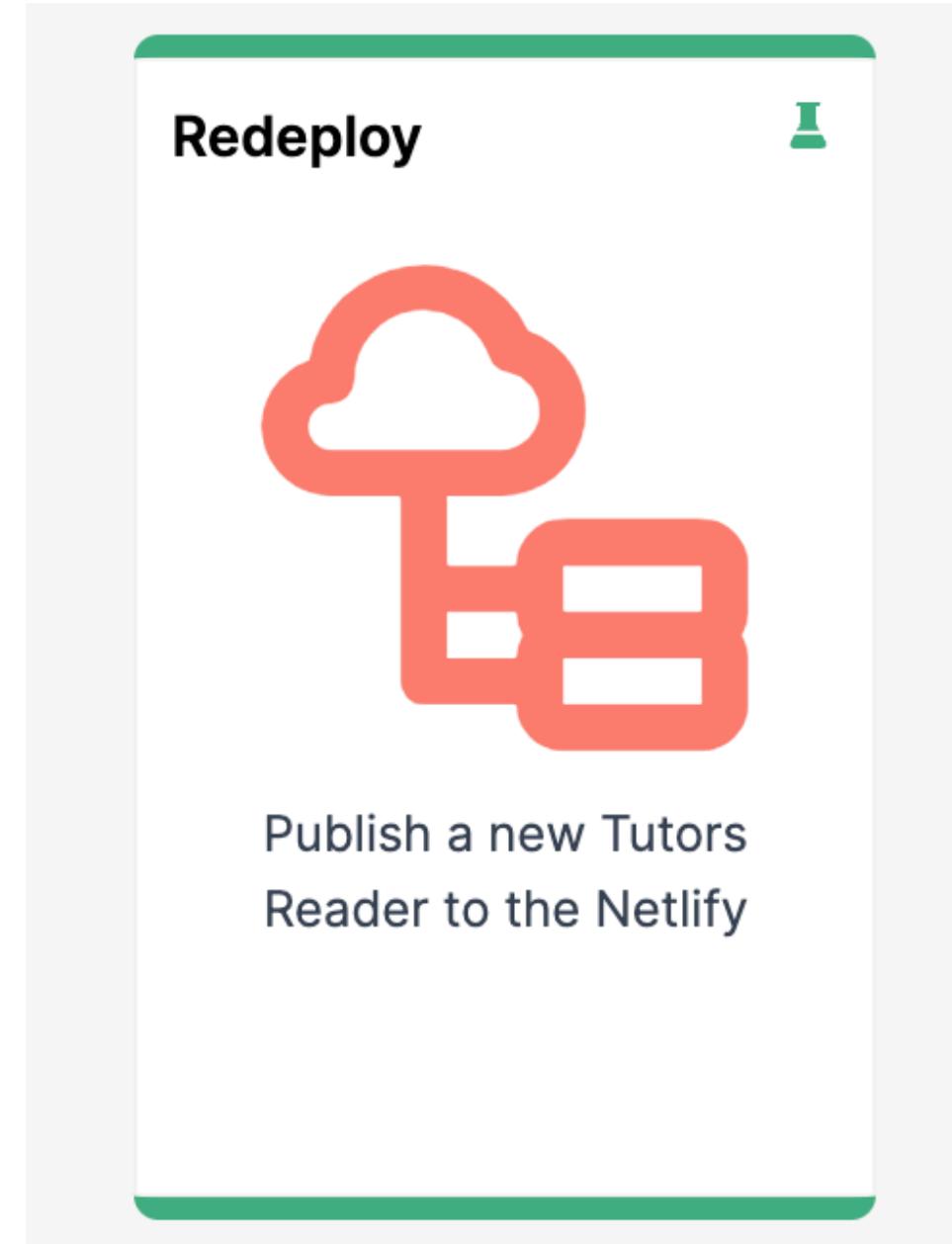
Tutors Architecture



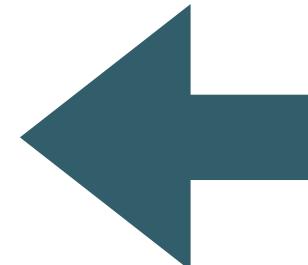
↑
*Guiding
Principles of
Tutors*

↑
*Tutors
Architecture*

↑
*Tutors Source
Monorepo*



*Deploying
a new
Tutors
Reader*



International Week 2024 Preliminary Time Table											
	Mon June 17		Tue June 18		Wed June 19		Thu June 20		Fri June 21		Sat June 22
08:00-9:30 (Block 1)											
09:45-11:15 (Block2)	Welcome Session 119 (Teachers and GJU Students)		Block Courses A1 220 A2 116 A3 32B		time for individual meetings 220, 305		Block Courses A1 116 A2 32A A3 305		Block Courses A1 220 A2 221 A3 305		Sightseeing / Museum /Art (Guests)
11:30-13:00 (Block3)	Block Courses A1 220 A2 221 A3 305				220, 305			Student Work (without supervision)			
13:00-13:30	Lunchbreak		Lunchbreak		Lunchbreak		Lunchbreak		Lunchbreak		Lunchbreak
13:30-15:00 (Block4)	Block Courses: A1 220 A2 221 A3 305		Block Courses A1 220 A2 116 A3 32B		Future Now! Research Workshop* (Guests)		Student Work (without supervision)		Student Presentation Courses A1-3 DIL Mitte**		Further Activities or Departure
15:15-16:45 (Block5)	Student Work (without supervision)		Student Work (without supervision)		Digital Impact Lab Mitte**		A1 220 A2 012 A3 305		Poster Session		
17:00-open end					Reception (Guests)				Student Social Event		
	A1 Ala' Khalifeh (GJU, Jordan): AI Generative Tools Workshop										
	A2 Eamonn de Leastar (SETU, Ireland): Tutors Workshop Web Development										
	A3 Gábor Kiss (Obuda, Hungary): AI in Practice										
	*Wed. is no schedule for HSB students. Rooms 220 and 305 can be used for meetings and projec work.										
	**Digital Impact Lab Mitte, Papenstraße 6, https://impact-lab.eu/dil-mitte/										

Tutors Workshop Programme

Monday	Tuesday	Thursday	Friday
<i>Learn</i>	<i>Explore</i>	<i>Create</i>	<i>Present</i>
Explore The Tutors Project Create and Edit a new Tutors Course	Tutors Theming & Iconography Tutors Learning Experience Tutors Design System Tutors Architecture	Tutors Workshop Projects Project A Project B Project C	Prepare and Present Achievement & Learning

Tutors Workshop Programme

Monday	Tuesday	Thursday	Friday
9:45 Welcome	Create, deploy and Present Sample Course	Tutors Architecture	Review & Feedback
11:30 Introducing Tutors	Theming & Iconography Introduction	Tutors Project Proposals (choice)	
13:30 Lab: Create Lab: Edit	Lab: Rebuild Lab: Theme		Presentations
15:15 <i>Form groups(2-4) + Agree and Research Domain of interest</i>	<i>Implement new Theme + Icon Set</i>	<i>Implement Tutors Project of Choice</i>	
16:45			

Tutors Projects

- Working in groups or individually