

Tutors



Open Web Learning Toolkit

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.

A programme homepage

Semester One

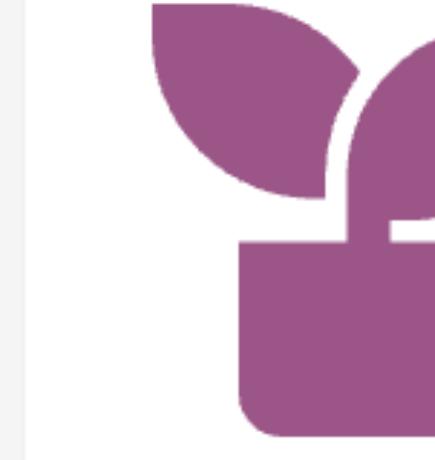
HDIP
23

FAQ 

Questions and Answers for new students on the programme

Workshop One 

induction · structure · schedules · handbook

Life etc... 

time · space · balance · experiences · tips · techniques

Web Development I 

html · css · layout · web apps · web frameworks · deployment

Programming 

algorithms · data structures · processing · java · classes · libraries

Semester 1 Schedule 

timetables · semester calendars · assessment schedules



Links to individual module Home pages

A course homepage

Full Stack Web Development
Eamonn de Leastar

Search Layout 0

Home Full Stack Web ...

Overview + Assignments

01: Node

02: Hapi.js

03: Joi

04: TDD

05: Models

06: APIs

07: REST

08: OpenAPI

09: JWT

10: Seeding

11: Deployment & Images

Overview, schedule & assignments.

The fundmendals of node.
A first node application.

The Hapi application Framework

Validation with Joi

Test Driven Development

Incorporate Mongo Models

Expose an API from an application

Resful API implementations

Documentating OpenAPI/Swagger APIs

Authenticating APIs with JSON Web Tokens

Seeding the Database

Deploying to Monogo Cloud, Heroku & Clodinary

Topics - 1 topic/card for each week

Navigation

The screenshot shows a user interface for a learning platform. At the top, there is a navigation bar with the following elements:

- Logo and course name: Full Stack Web Development by Eamonn de Leastar.
- Current Week: Week 9.
- Calendar button.
- Search bar.
- Layout settings.
- User profile icon.

Below the navigation bar is a toolbar with various icons for file operations like copy, paste, and search.

The main area is titled "Wall" and displays a grid of six cards, each representing a module or lesson:

- Overview + Assignments**: Overview, schedule & assignments. Includes an icon of two people at a desk.
- 01: Node**: The fundamentals of node. A first node application. Includes the Node.js logo.
- 02: Hapi.js**: The Hapi application Framework. Includes the Hapi.js logo.
- 03: Joi**: Validation with Joi. Includes the Joi logo.
- 04: TDD**: Test Driven Development. Includes a circular diagram of the TDD cycle.
- 05: Models**: Companions. Incorporate Mongo Models. Includes an icon of three blue cubes.

Navigation

Layout & Themes

The screenshot displays a user interface for a Full Stack Web Development course. At the top, there's a header with the course name "Full Stack Web Development" and instructor "Eamonn de Leastar". A navigation bar includes a "Search" field, a "Layout" dropdown set to "Tutors", and a user profile icon. A sidebar on the right contains sections for "Toggles" (Dark Mode, Compact) and "Themes" (Tutors, Dyslexia). The main content area shows a series of cards for lessons 01 through 05, each with a title, icon, and brief description. Lesson 01 is about Node.js, 02 is about Hapi.js, 03 is about Joi validation, 04 is about Test Driven Development (TDD), and 05 is about incorporating Mongo Models.

Full Stack Web Development
Eamonn de Leastar

Current Week
9 | Calendar

Search | Layout |

Toggles
Dark Mode
Compact

Themes
Tutors
Dyslexia

01: Node
The fundmendals of node.
A first node application.

02: Hapi.js
The Hapi application
Framework

03: Joi
Validation with Joi

04: TDD
Write a failing test
Refactor
Make the test pass
Test Driven Development

05:
Incorporate Mongo Models

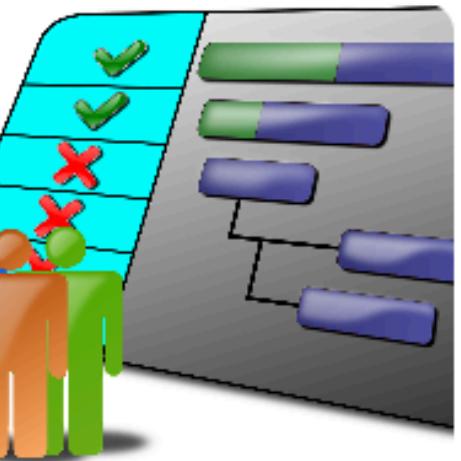
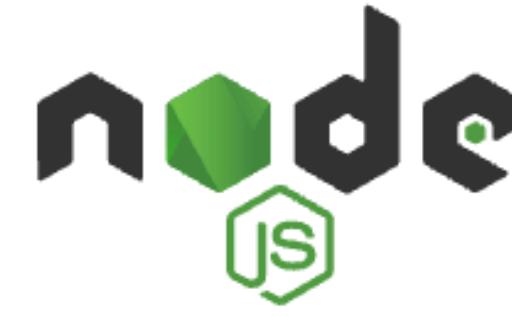
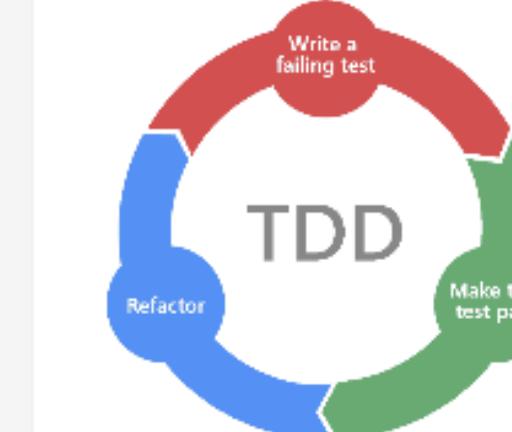
Theme Support

Layout & Themes

The screenshot displays a dark-themed user interface for a learning platform. At the top, the title "Full Stack Web Development" and author "Eamonn de Leastar" are visible. On the right side, there is a navigation bar with a search icon, a "Layout" dropdown, and a user profile icon. A large downward arrow points from the "Layout & Themes" text towards this navigation area. Below the navigation, a sidebar titled "Toggles" contains "Dark Mode" (which is currently selected) and "Compact". Another section titled "Themes" includes "Tutors" (selected), "Dyslexia", and "Incorporate Mongo Models". The main content area shows a grid of course cards:

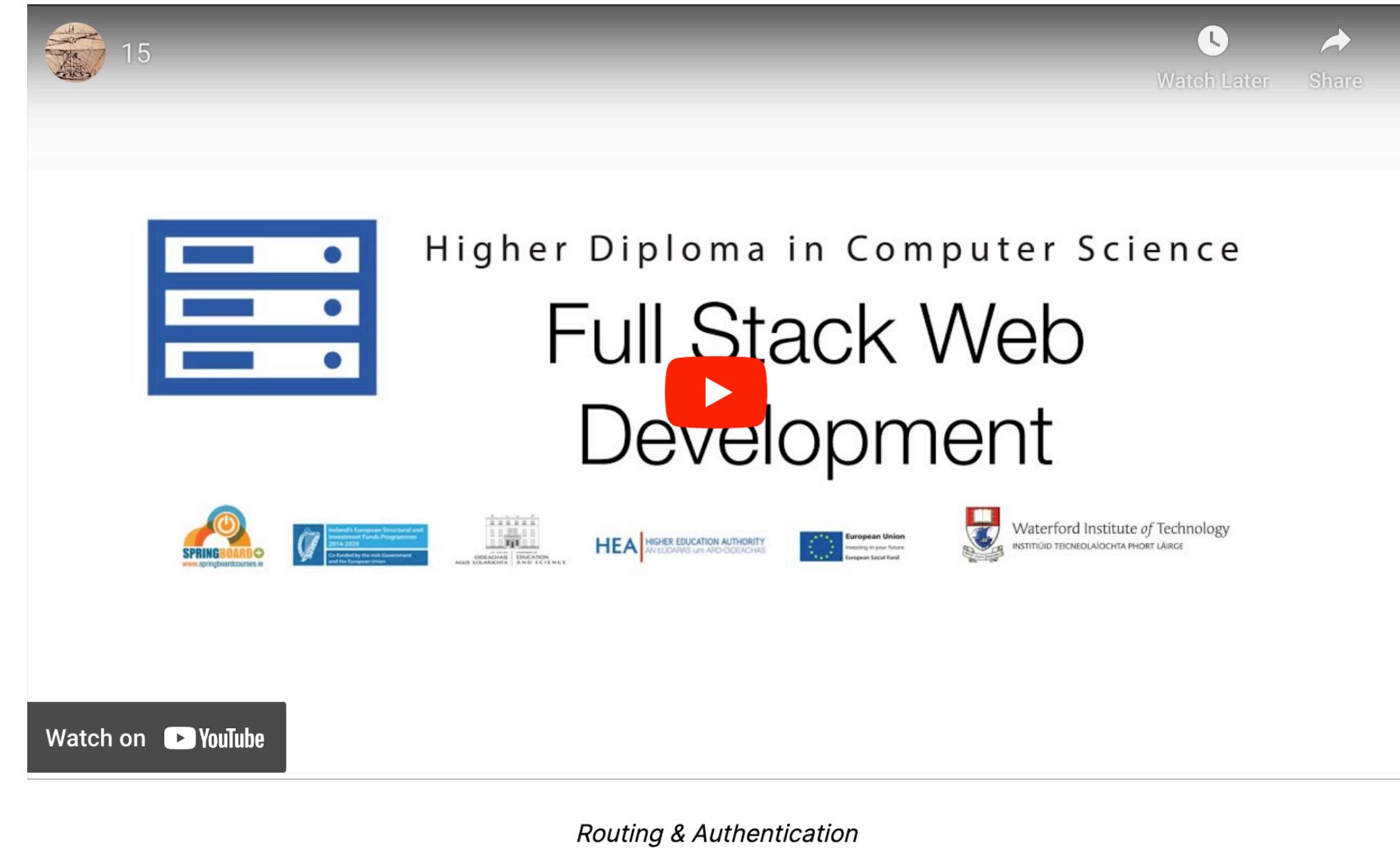
- Overview + Assignments**: Overview, schedule & assignments.
- 01: Node**: The fundamentals of node. A first node application.
- 02: Hapi.js**: The Hapi application Framework
- 03: Joi**: Validation with Joi
- 04: TDD**: Test Driven Development
- 05:** : Incorporate Mongo Models

Topics - 1 topic/card for each week

<p>Overview + Assignments</p>  <p>Overview, schedule & assignments.</p>	<p>01: Node</p>  <p>The fundamentals of node. A first node application.</p>	<p>02: Hapi.js</p>  <p>The Hapi application Framework</p>	<p>03: Joi</p>  <p>Validation with Joi</p>	<p>04: TDD</p>  <p>Test Driven Development</p>	<p>05: Models</p>  <p>Incorporate Mongo Models</p>
<p>06: APIs</p>  <p>Expose an API from an application</p>	<p>07: REST</p>  <p>Resful API implementations</p>	<p>08: OpenAPI</p>  <p>Documentating OpenAPI/Swagger APIs</p>	<p>09 JWT</p>  <p>Authenticating APIs with JSON Web Tokens</p>	<p>10: Seeding</p>  <p>Seeding the Database</p>	<p>11: Deployment & Images</p>  <p>Deploying to Monogo Cloud, Heroku & Clouinary</p>

Single Topic

The screenshot shows a top navigation bar with a logo, search icon, layout icon, and user profile. Below it is a breadcrumb navigation path: Home > Full Stack Web ... > 15: Routing & A... > Routing. To the right is a toolbar with icons for file operations.



A list of sub-topics under the main topic "Routing". Each item has a thumbnail, title, and a brief description. The sub-topics are:

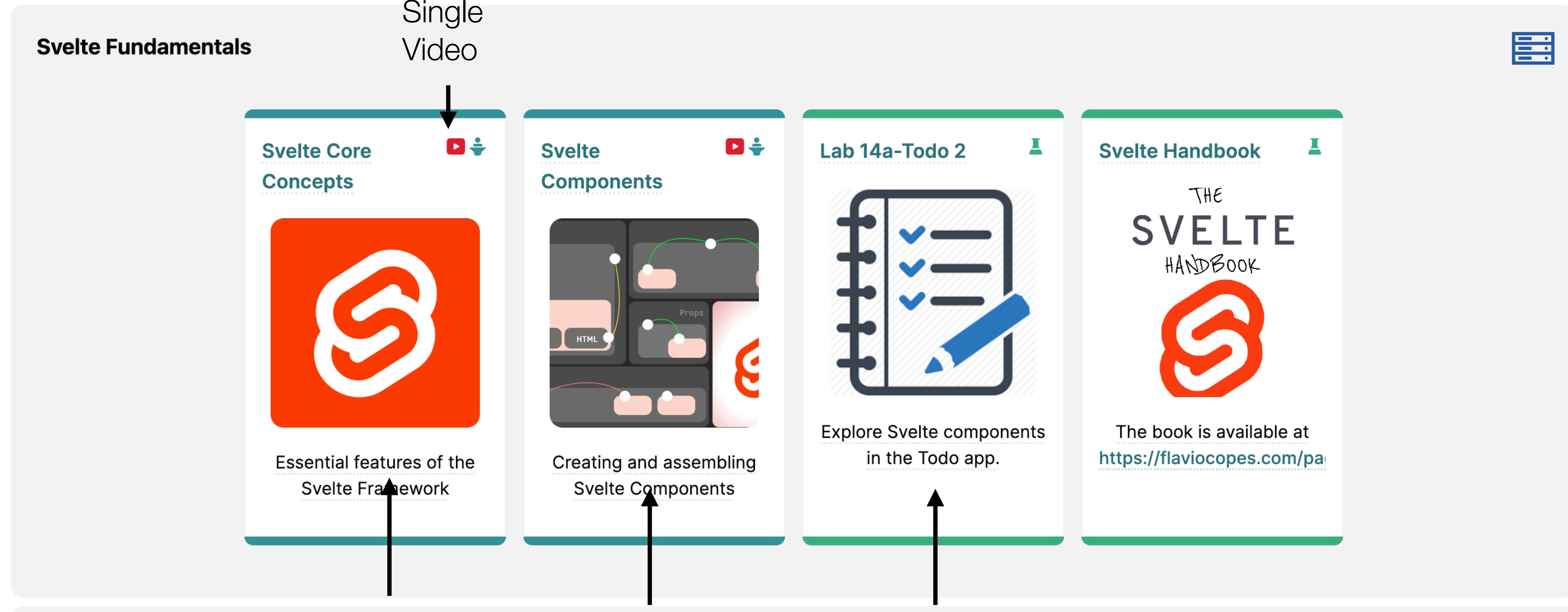
- Routing**: How Routing Works, Hash based routing in Svelte.
- Pages & Components**: Creating and assembling Svelte Components.
- Lab-15a-Donation-Svelte-1**: Front end for Donation - Pages + Components.

Topic Video

Pre-recorded or live stream

Sub Topic 1

Sub Topic



Talk Slide PDFs

Lab

Embedded PDF reader custom with Navigation →

4 of 18

Context

The context API is provided by 2 functions which are provided by the svelte package: getContext and setContext

You set an object in the context, associating it to a key

In another component you can use getContext to retrieve the object assigned to a key:

→ **Context:** A feature to allow a component communicate with multiple descendants

```
<script>
import { setContext } from 'svelte'

const someObject = {}

setContext('someKey', someObject)
</script>
```

```
<script>
import { getContext } from 'svelte'

const someObject = getContext('someKey')
</script>
```

16: Svelte Applications



Svelte Applications

Svelte Applications

Why Svelte? ▶

Donate API ▶

Donate in Svelte ▶

Lab-16a-Donate-Hapi-3 ▶

Lab-16b-Donate-Svelte-3 ▶

Talk Context - related talks & videos ←

Talk

Labs

Lab Steps



- Objectives
- Create
- Router**
- Components
- Pages
- Donate & Report
- Login & Signup
- Solutions

Router

Like web apps, front end applications also have the concept of a router. Svelte itself does not provide one, but there are several popular options:

- <https://www.routify.dev/>
- <https://github.com/AlexxNB/tinro>
- <https://github.com/ItalyPaleAle/svelte-spa-router>

We will use the last one - which is documented in detail in this svelte text book:

- [Svelte 3 Up & Running](#)

Start by installing it:

```
npm install svelte-spa-router
```

To try it out, create three svelte file in a new **pages** folder in the project:

pages/Main.svelte

```
<div class="notification is-link">
  Hello from Main!
</div>
```

pages/Login.svelte

```
<div class="notification is-info">
  Hello from Login!
</div>
```

pages/Signup.svelte

```
<div class="notification is-warning">
  Hello from signup!
</div>
```

This is a revised App.svelte, to include the routing table:

App.svelte

Markdown
formatted text

Code block
syntax
highlighting



Enter search term:

env

Search

"env": {

Lab-01-Playtime-0-1-0/ Code Quality Tools

dotenv environment variables file

Lab-01-Playtime-0-1-0/ Code Quality Tools

dotenv environment variables file

Lab-01-Playtime-0-1-0/ Code Quality Tools

.env

Lab-01-Playtime-0-1-0/ Code Quality Tools

.env.test

Lab-01-Playtime-0-1-0/ Code Quality Tools

.env.production

Lab-01-Playtime-0-1-0/ Code Quality Tools

In general we should attempt to "externalise" sensitive information, secrets or API details to a text file. This is usually called .env

Lab-02-Playtime-0-2-0/ Exercises

.env

Lab-02-Playtime-0-2-0/ Exercises

<https://github.com/motdotla/dotenv#readme>

Lab-02-Playtime-0-2-0/ Exercises

In general we should attempt to "externalise" sensitive information, secrets or API details to a text file. This is usually called .env

Lab-03-Playtime-0-3-0/ Exercise 3

.env

Lab-03-Playtime-0-3-0/ Exercise 3

<https://github.com/motdotla/dotenv#readme>

Lab-03-Playtime-0-3-0/ Exercise 3

npm install dotenv

Lab-03-Playtime-0-3-0/ Exercise 3

Import the package in server, and check for the presence of the .env file, exiting if not found:

Lab-03-Playtime-0-3-0/ Exercise 3

import dotenv from "dotenv";

Lab-03-Playtime-0-3-0/ Exercise 3

import dotenv from "dotenv";

Lab-03-Playtime-0-3-0/ Exercise 3

const result = dotenv.config();

Lab-03-Playtime-0-3-0/ Exercise 3

If we have included the .env file above at the root of our project, then we can directly access its entries. So, our cookie configuration can now import these values:



Navigator

The screenshot shows a web-based course management or navigator interface. At the top left, there is a Node.js logo icon followed by the text "01: Node Advanced Full Stack Web Development". To the right of the title is a teal-colored button with a calendar icon and the text "Current Week 8". Further to the right are search and layout navigation buttons, and a user profile icon showing a photo of a man with a red notification badge containing the number "2". A horizontal toolbar at the bottom includes icons for file operations like "Advanced Full S...", "01: Node", "Share", "Edit", "YouTube", and "Print".

01: Node
Advanced Full Stack Web Development

Current Week
8

Search Layout

2

Advanced Full S... 01: Node Share Edit YouTube Print



Companions

01: Node
Advanced Full Stack Web Development

Current Week
8

Search Layout

Advanced Full S... 01: Node

Slack channel
Moodle resources
Youtube playlist



Navigation

Module
Syllabus

01: Node
Advanced Full Stack Web Development

Course
Home

Current
Topic

Current Week
8

Labs Text
Search

Search | Layout |

All
Slides
All
Videos
All
Labs
All
Archives



Navigation

*Current
Week*

The screenshot shows a course calendar for "Semester 1 : Advanced Full Stack Web Development". A light green box highlights "Current Week 8". The interface includes a search bar, layout options, and a user profile with a red notification badge.

Week No.	Type	Date Starts
1	Online Class	Mar 13
2	Online Class	Mar 19
3	Online Class	Mar 26
4	Online Class	Apr 2
.	Study	Apr 9
5	Online Class	Apr 16
6	Online Class	Apr 23
7	Onsite Class	Apr 30
8	Onsite Class	May 7
9	Online Class	May 14
10	Online Class	May 21
11	Online Class	May 28
.	Study	Jun 4
.	Study	Jun 11
.	Study	Jun 18

*Slide out
Course
Calendar*





Navigation

Module
TOC



Overview

01: Node

▶ [Introducing Node & HAPI](#)

■ [Introducing Node](#)

⌚ [Node Context](#) ▶

⌚ [The Hapi Framework](#) ▶

⌚ [Hapi Building Blocks](#) ▶

■ [Introducing Playtime](#)

⌚ [Code Quality Tools](#) ▶

⌚ [Model View Controller in HAPI](#) ▶

👤 [Lab-01-Playtime-0-1-0](#)

02: Hapi.js

03: Joi

04: TDD

05: Models

06: APIs

ent

Current Week
8

🔍 Search

⚡ Layout



Slide out
TOC





UX

The screenshot shows a web application interface with the following elements:

- Header:** Includes a Node.js logo and the title "01: Node Advanced Full Stack Web Development".
- Top Bar:** Features a "Current Week" badge (8), a search bar, a "Layout" dropdown, and a user profile icon with a red notification badge (2).
- Sidebar (open):** Titled "Layout", it contains sections for "Toggles" (Dark Mode, Compact), "Themes" (Tutors, Dyslexia), and "Theme Builder".
- Content Area:** Three descriptive labels with arrows pointing to specific UI components:
 - "Dark Mode / Compact" points to the "Compact" toggle in the sidebar.
 - "Theme Switch" points to the "Tutors" theme in the sidebar.
 - "Theme Design" points to the "Dyslexia" theme in the sidebar.



UX

The screenshot shows a dark-themed application interface. At the top left is a logo with a stylized 'T'. To its right is the text 'Overview' and 'Advanced Full Stack Web Development'. In the center is a dark rounded rectangle containing a calendar icon and the text 'Current Week 8'. To the right of the calendar are a search bar with a magnifying glass icon, a 'Layout' dropdown, and a user profile picture with a red notification badge showing '2'. On the far right is a three-dot menu icon.

The main content area has a dark background. On the left, there's a breadcrumb navigation: 'Advanced Full S... > Overview'. On the right, there's a sidebar menu with the following sections:

- Toggles**: Contains 'Dark Mode' (which is highlighted with a blue border and a sun icon), 'Compact', and a three-dot menu icon.
- Themes**: Contains 'Tutors' (which is highlighted with a dark blue rounded rectangle), 'Dyslexia', and 'Theme Builder'.

Three arrows point from the descriptive text below to the corresponding menu items in the sidebar:

- An arrow points from the text 'Dark Mode / Compact' to the 'Compact' item in the Toggles section.
- An arrow points from the text 'Theme Switch' to the 'Tutors' item in the Themes section.
- An arrow points from the text 'Theme Design' to the 'Theme Builder' item in the Themes section.

Dark Mode / Compact

Theme Switch

Theme Design



UX

The screenshot shows a web application interface with the following elements:

- Top Bar:** Includes a Node.js logo, course title "01: Node Advanced Full Stack Web Development", a calendar icon with "Current Week 8", a search bar, a layout dropdown, and a user profile picture for "Eamonn de Leastar" with a red notification badge showing "2".
- Breadcrumbs:** "Advanced Full S... > 01: Node"
- Toolbar:** Icons for Slack, Microsoft Teams, and YouTube.
- Central Content:** A large text area with arrows pointing to two sections:
 - "Who is Online Now?"
 - "User Profile Information"
- Right Sidebar:** A list of user actions with corresponding icons:
 - Share Presence
 - View 2 Online
 - Tutors Live
 - Tutors Time
 - Github Profile
 - Logout



Module
Syllabus

01: Node
Advanced Full Stack Web Development

Advanced Full S... > 01: Node

Logged in as:
Eamonn de Leastar

Share Presence
View 2 Online

Tutors Live
Tutors Time
Github Profile
Logout

Course Home

Current Topic

Current Week
8

Toggles

Dark Mode
Compact

Themes

Tutors
Dyslexia
Theme Builder

Labs Text Search

Search
Layout

Slack channel
Moodle resources
All Archives
All Labs
All Slides
Videos

Youtube playlist

Module Index

Tutors

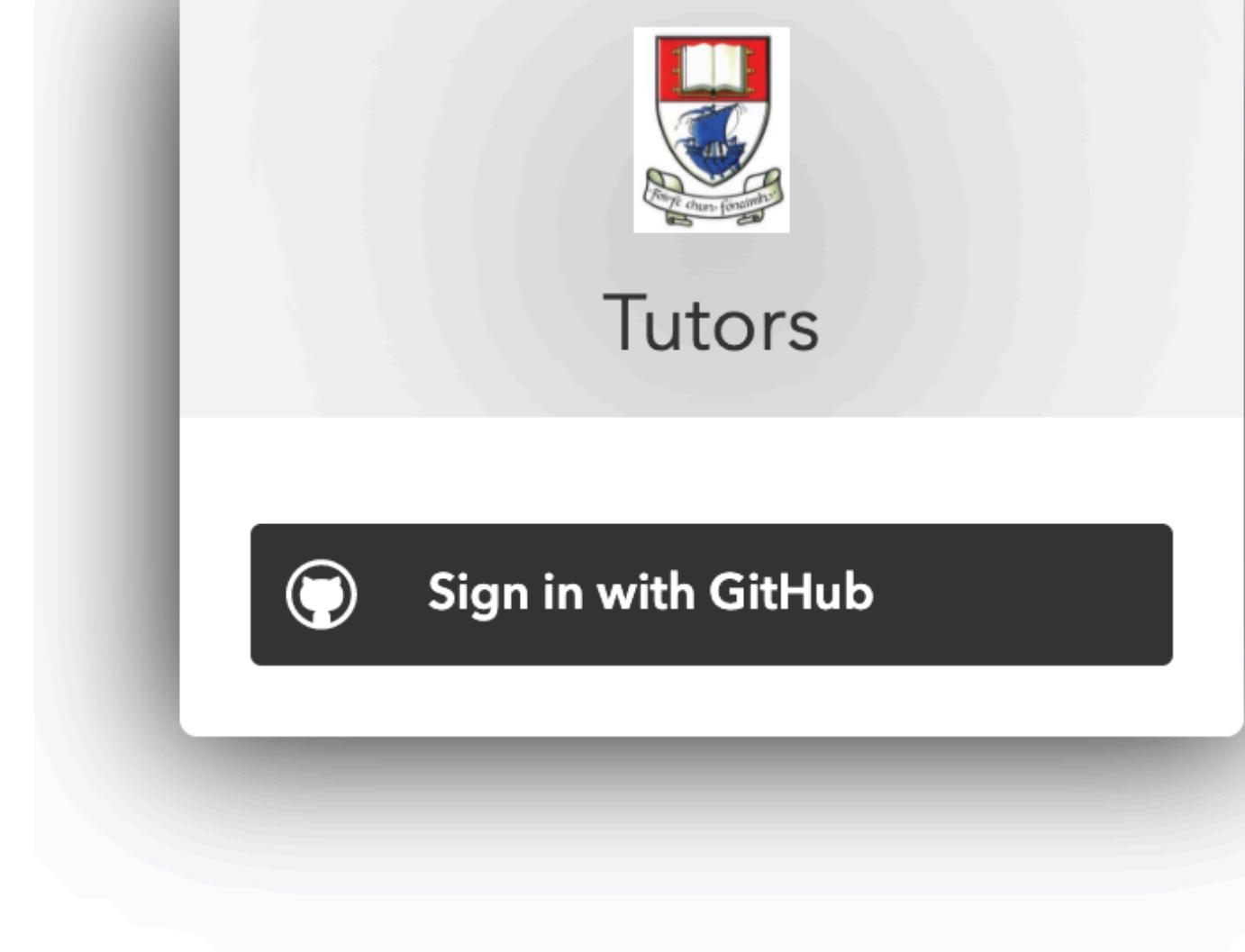


TutorsTime



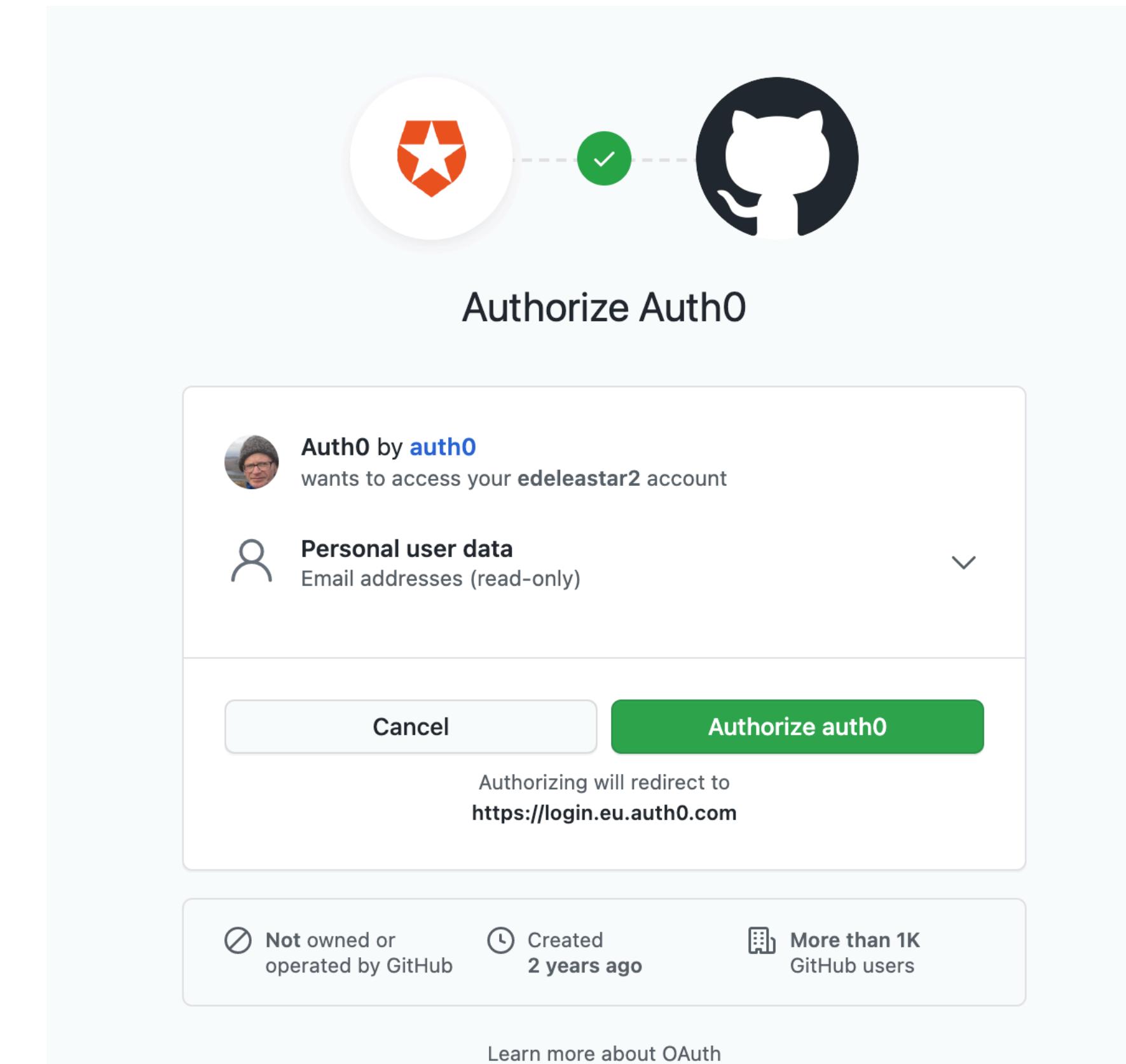
TutorsLive





... first time you will
have to authorise ...

When accessing
module, you will be
asked to sign in with
Github



Github Profile

Screenshot of a GitHub profile page for user `edeleastar2`.

The top navigation bar includes the GitHub logo, a search bar, and links for Pull requests, Issues, Marketplace, and Explore. On the far right are icons for notifications, a plus sign, and a user profile.

A message banner at the top states: "Your profile picture has been updated. It may take a few moments to update across the site." with a close button.

The main content area is titled "Public profile".

Name: Eamonn de Leastar

Profile picture: A circular photo of a man with glasses and a textured hat, set against a backdrop of hills and water.

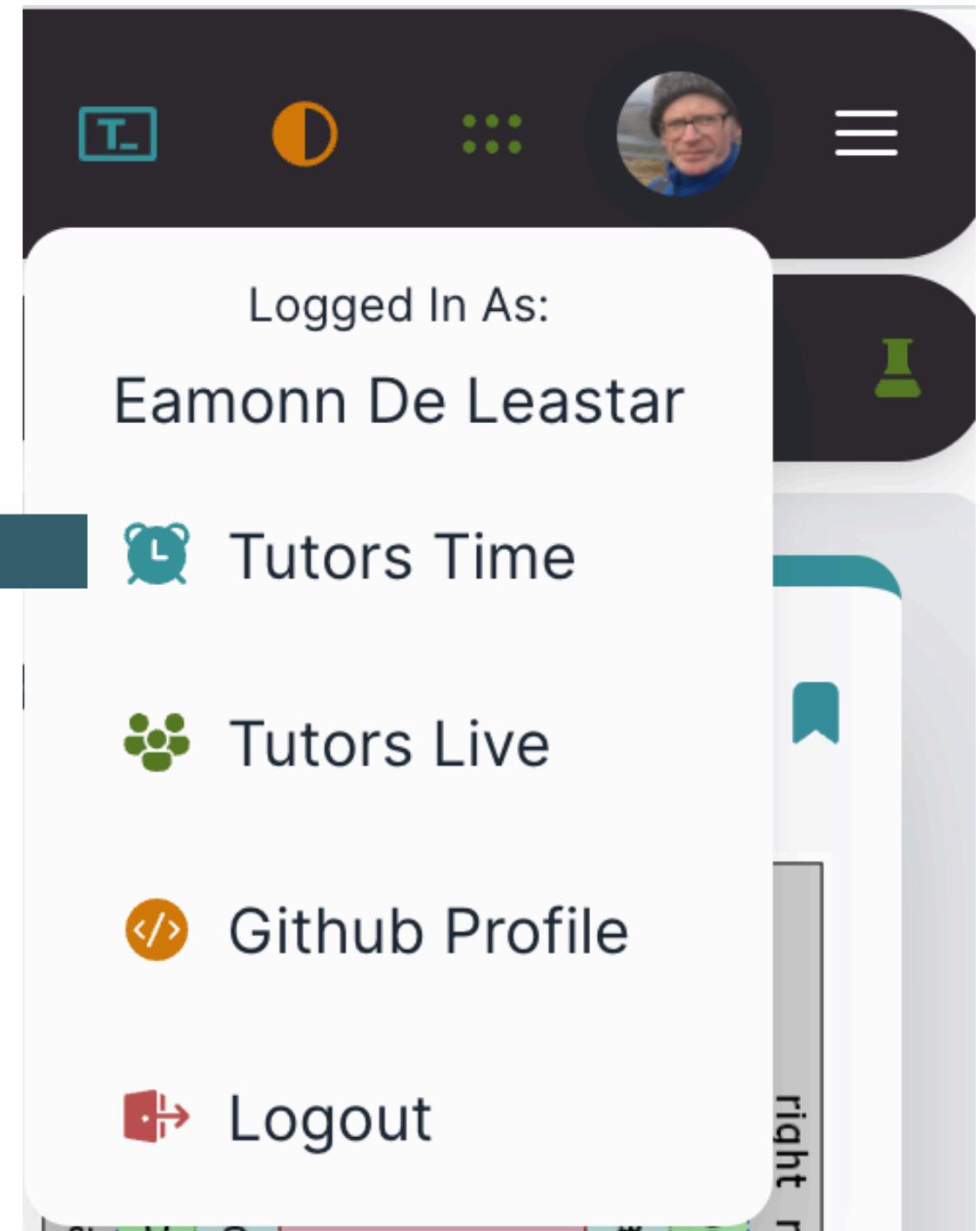
Profile sidebar: Includes links for Profile, Account, Appearance (marked as New), Account security, Billing & plans, Security log, and Security & analysis.

Public email: A dropdown menu showing "Select a verified email to display" with an arrow icon. Below it, a note says: "You have set your email address to private. To toggle email privacy, go to [email settings](#) and uncheck 'Keep my email address private.'"

Bio: A blank input field with an "Edit" button containing a pencil icon.



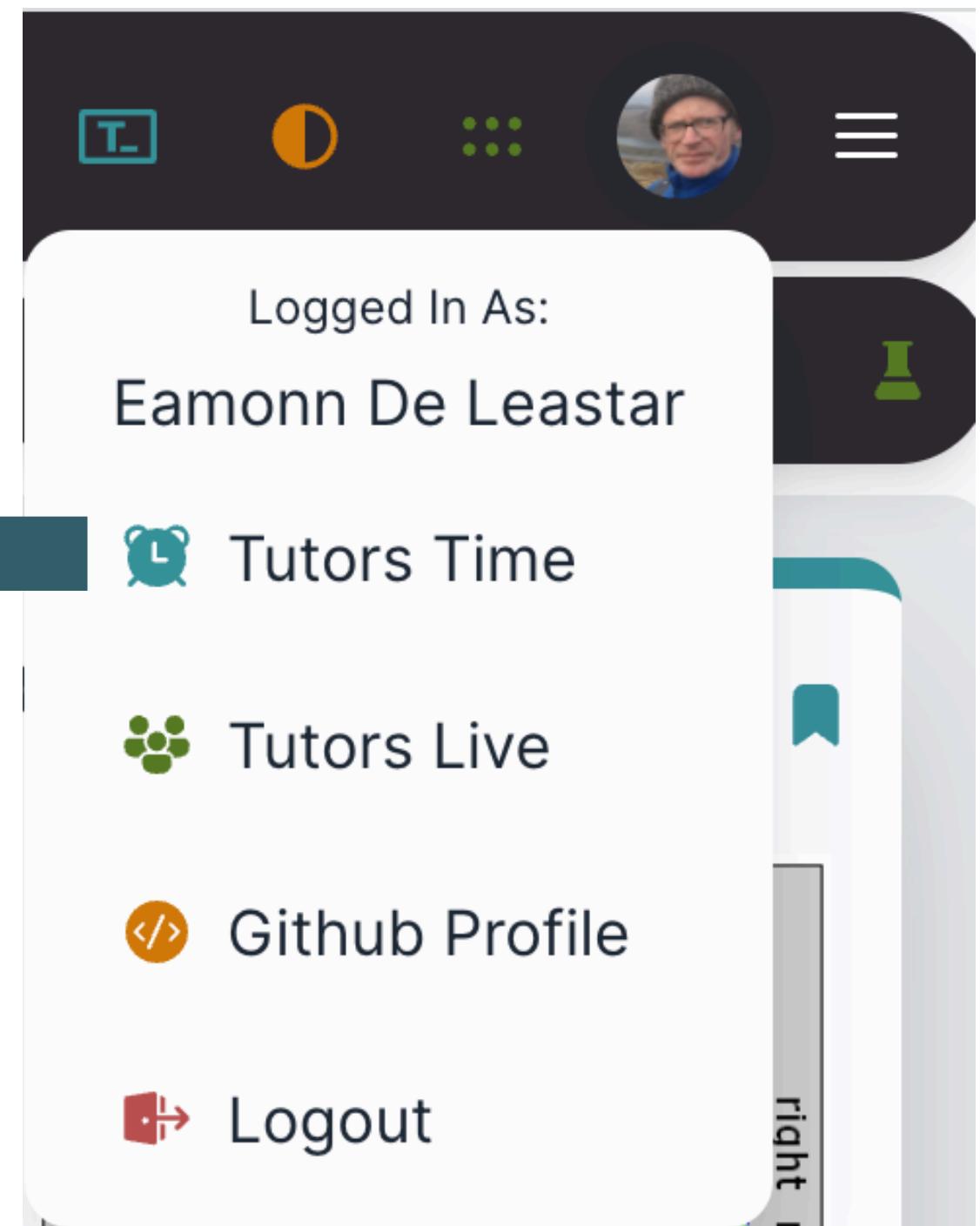
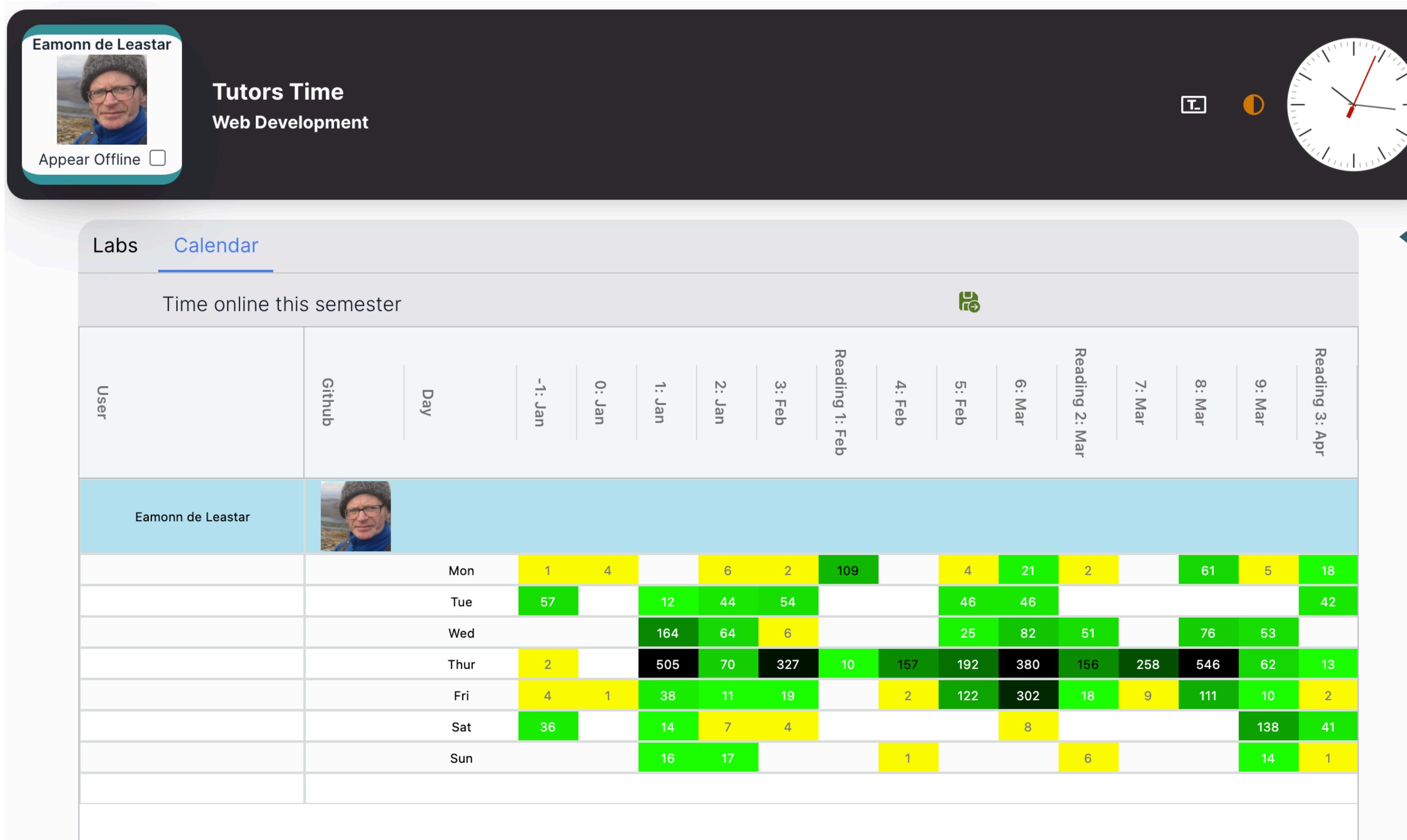
TutorsTime - Labs



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



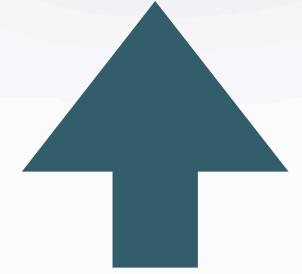
TutorsTime - Calendar



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

Eamonn de Leastar
Appear Offline

Tutors Live: Web Development
Web Development



You may choose to not appear on this page if you prefer to 'appear offline'

Student	Topic/Lab	Last Seen
Joe	05: Arrays Lab-05a	12:38:55
Mary	04: Classes Lab-04a	12:47:54
Mike	05: Arrays Lab-05a	12:39:14
Frank	05: Arrays Lab-05a	12:47:54
Elizabeth	05: Arrays	12:38:57
Sean	05: Arrays	12:47:54

Logged In As:
Eamonn De Leastar

Tutors Time
 Tutors Live
 Github Profile
 Logout

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