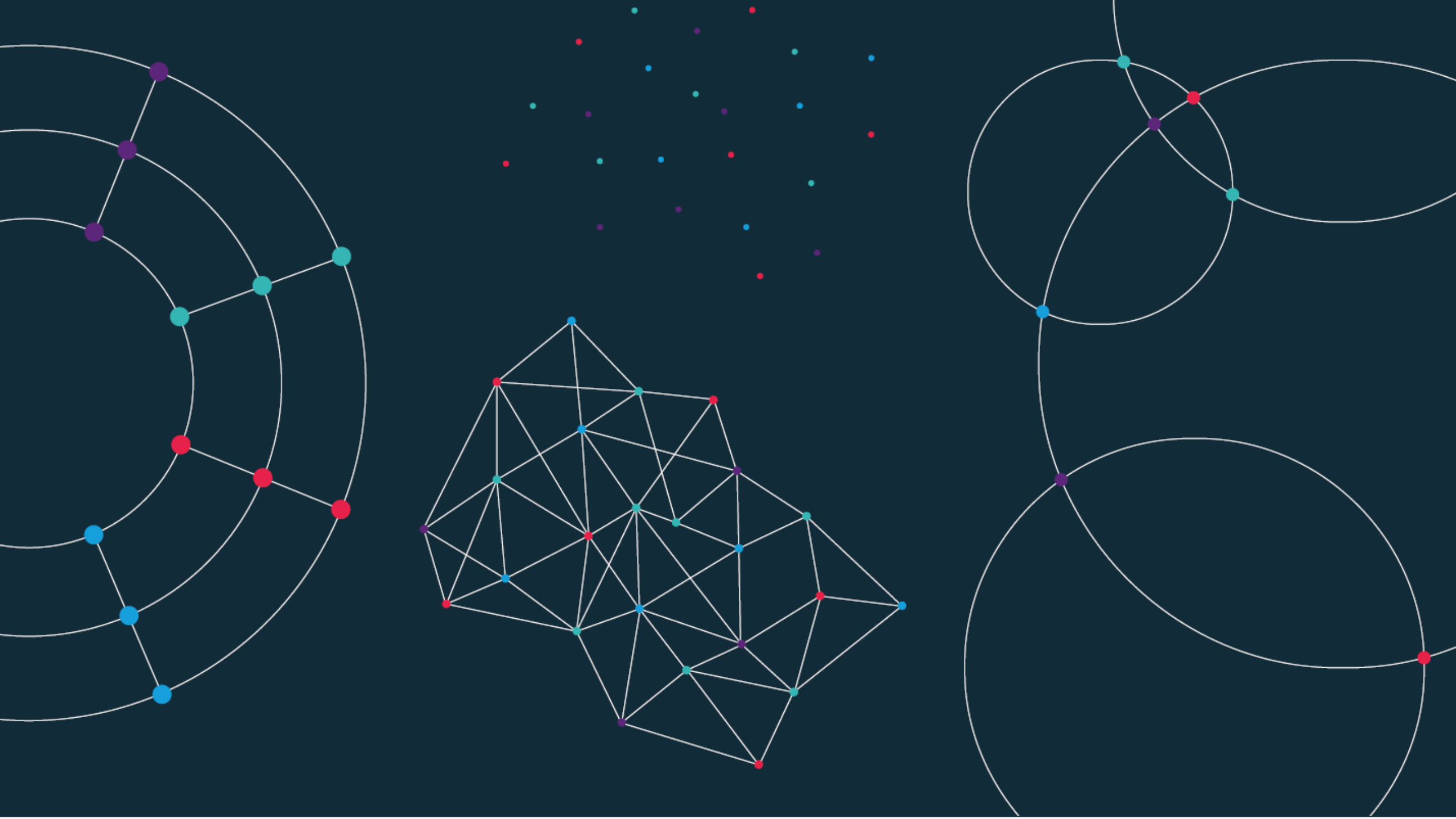
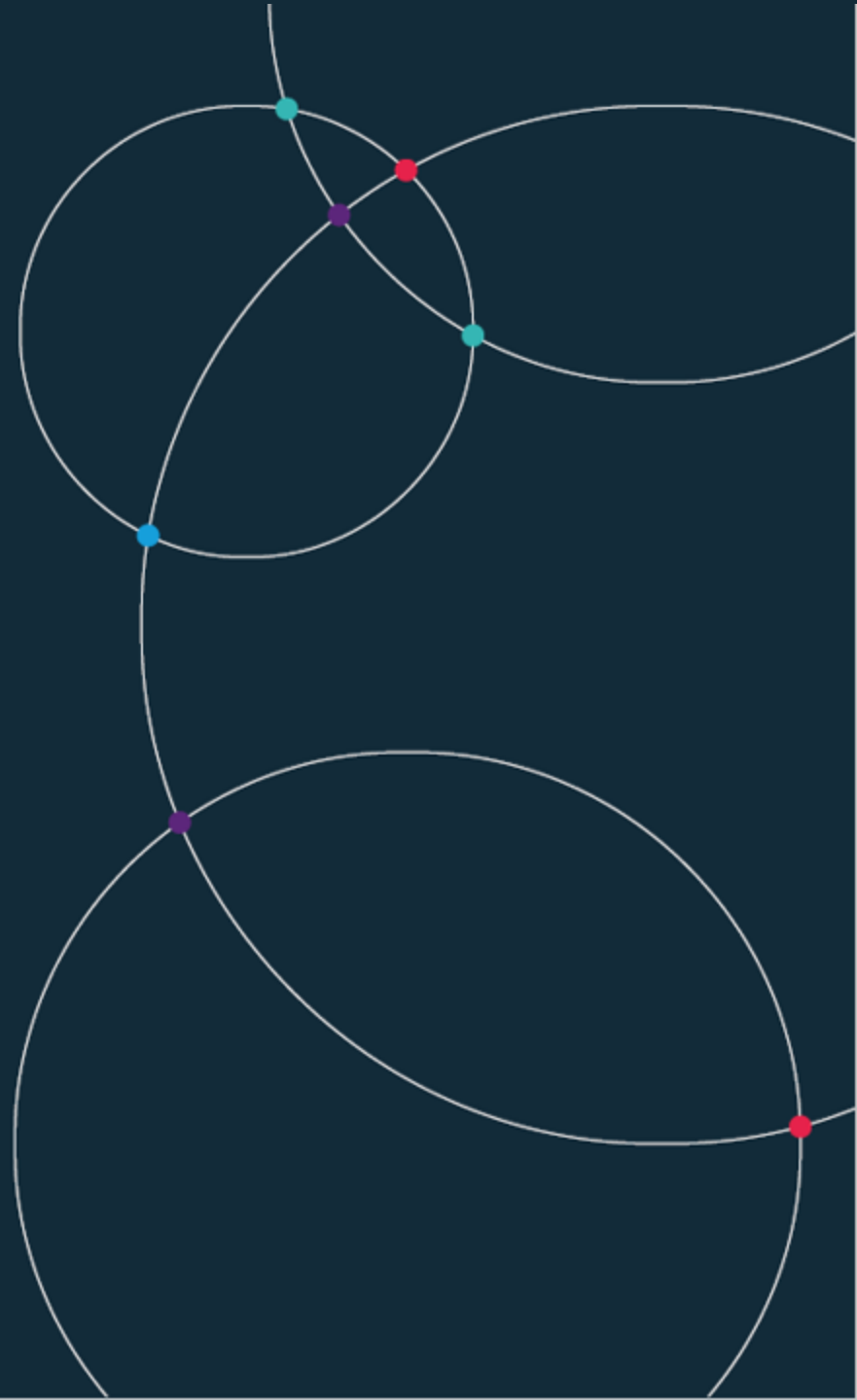


Automated Data Visualis
for Policymaking.

Autumn 2025



Seminar 1.

- **1.0** Resources & recap
- **1.2** VSCode
- **1.3** Embedding a Chart

1.0 This course: Resources.

Tools, objectives, teaching team

Team.

Prof Richard Davies

www.richarddavies.io

www.RDeconomist.github.io

www.extremeeconomies.com

Finn McEvoy

github.com/FM-ds

Josh Hellings

jhellingsdata.github.io

Resources.

Places to find, and share

Resource 1: my site:
www.richarddavies.io/data-science

Resource 2: chart library.
www.richarddavies.io/library

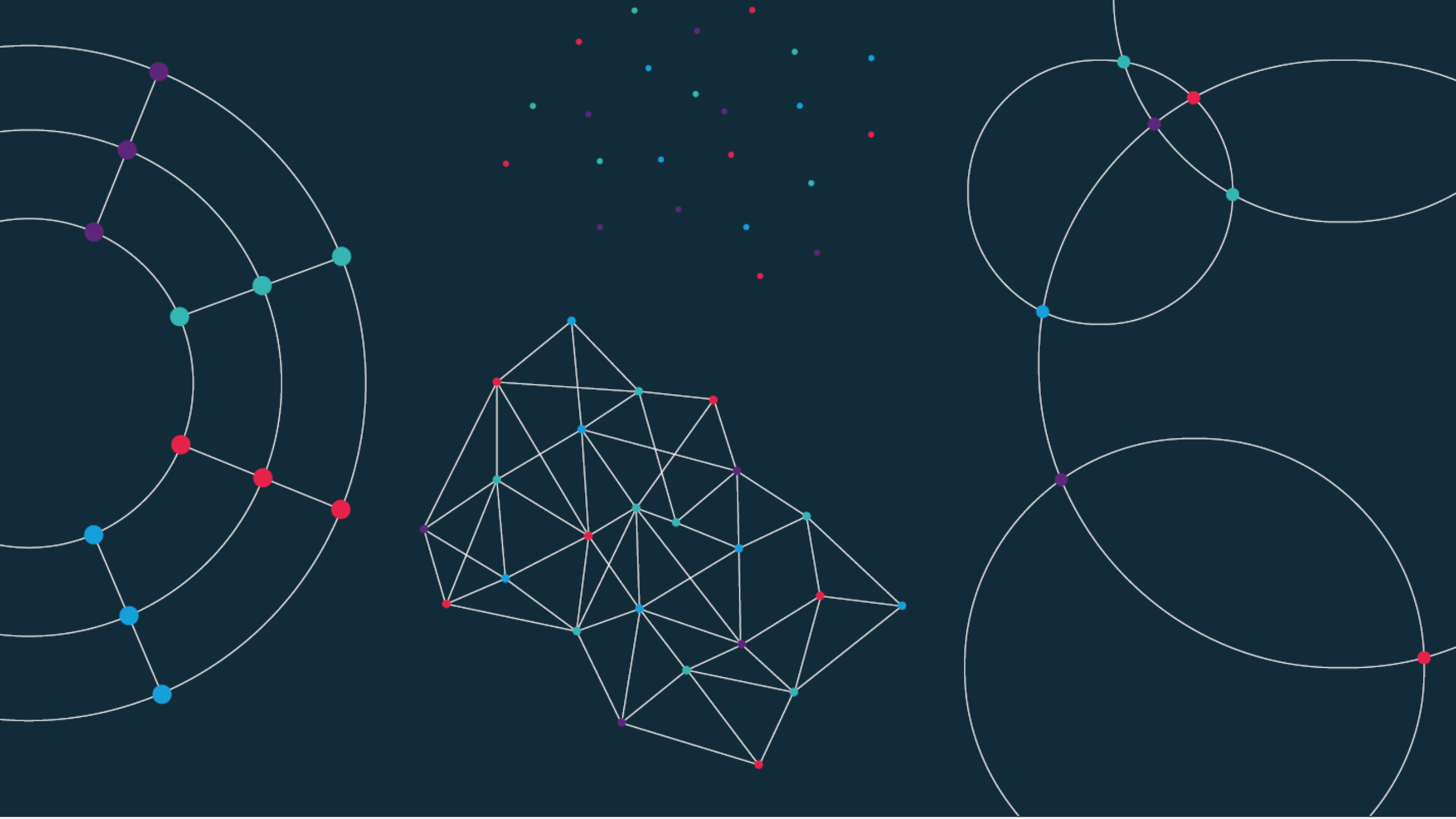
Resource 3: course Google sheet.
Google sheet. Link.

Resource 4: course DropBox.
DropBox. Link.

Resource 5: Playfair Prize
www.playfairprize.com

Week plan.

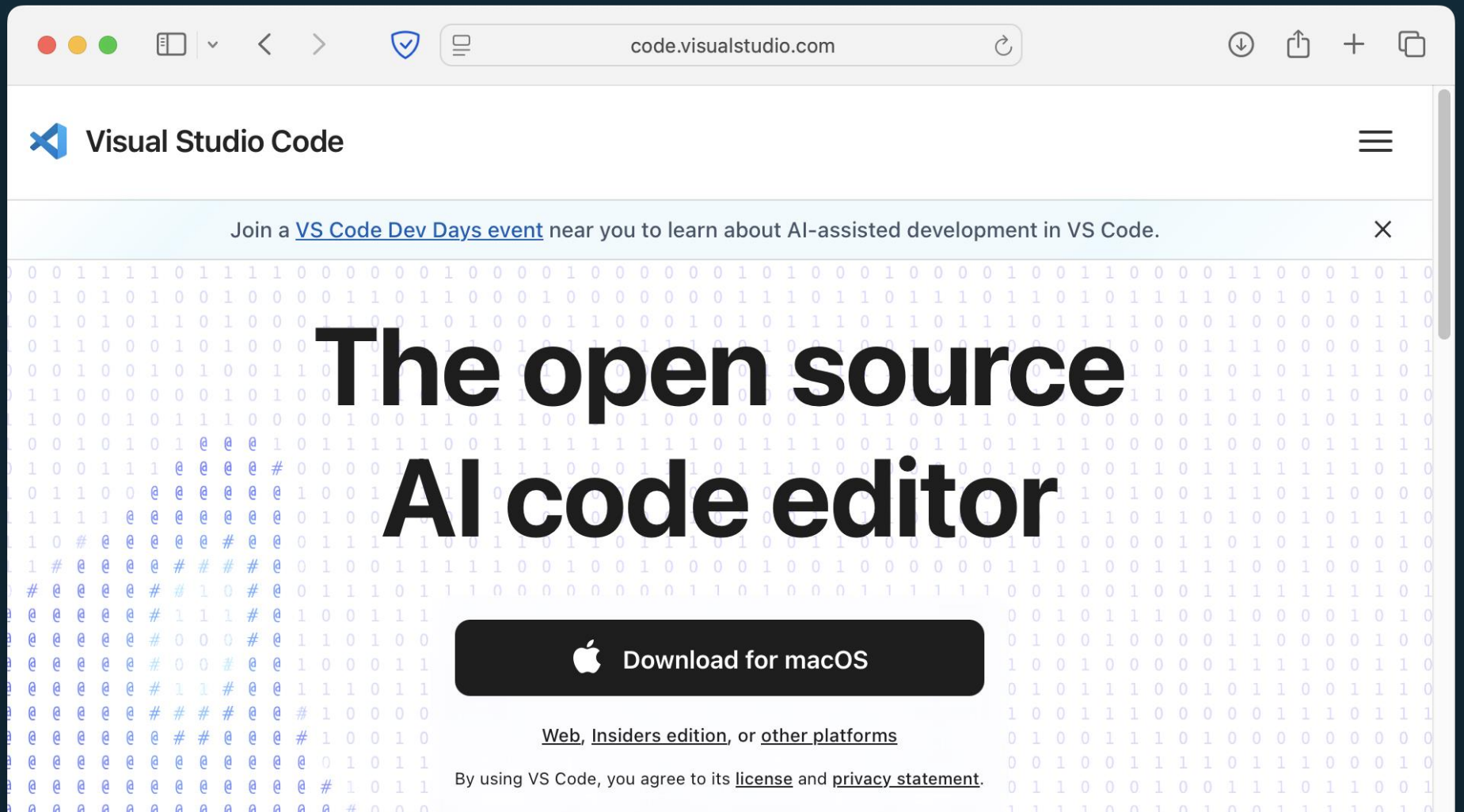
- **Thursday 12:00-14:00:** Lecture and practical.
- **Friday 12:00-13:00 / 13:00 – 14:00:** Seminars: skill (taught) and portfolio and project discussion.
- **Office Hours:**
  - Richard: Thursday, 14:15-15:00 (5.02 – book on Student Hub)
  - Finn: Tuesday, 14:30-15:30 (Drop in, Growth Lab area)
  - Josh: Monday, 13:00-14:00 (Drop in, Growth Lab area)
  - Hannah: Wednesday, 15:00-16:00 (Drop in, Growth Lab area)
  - Sam: Friday,TBC (Drop in, Growth Lab area)



VSCode.

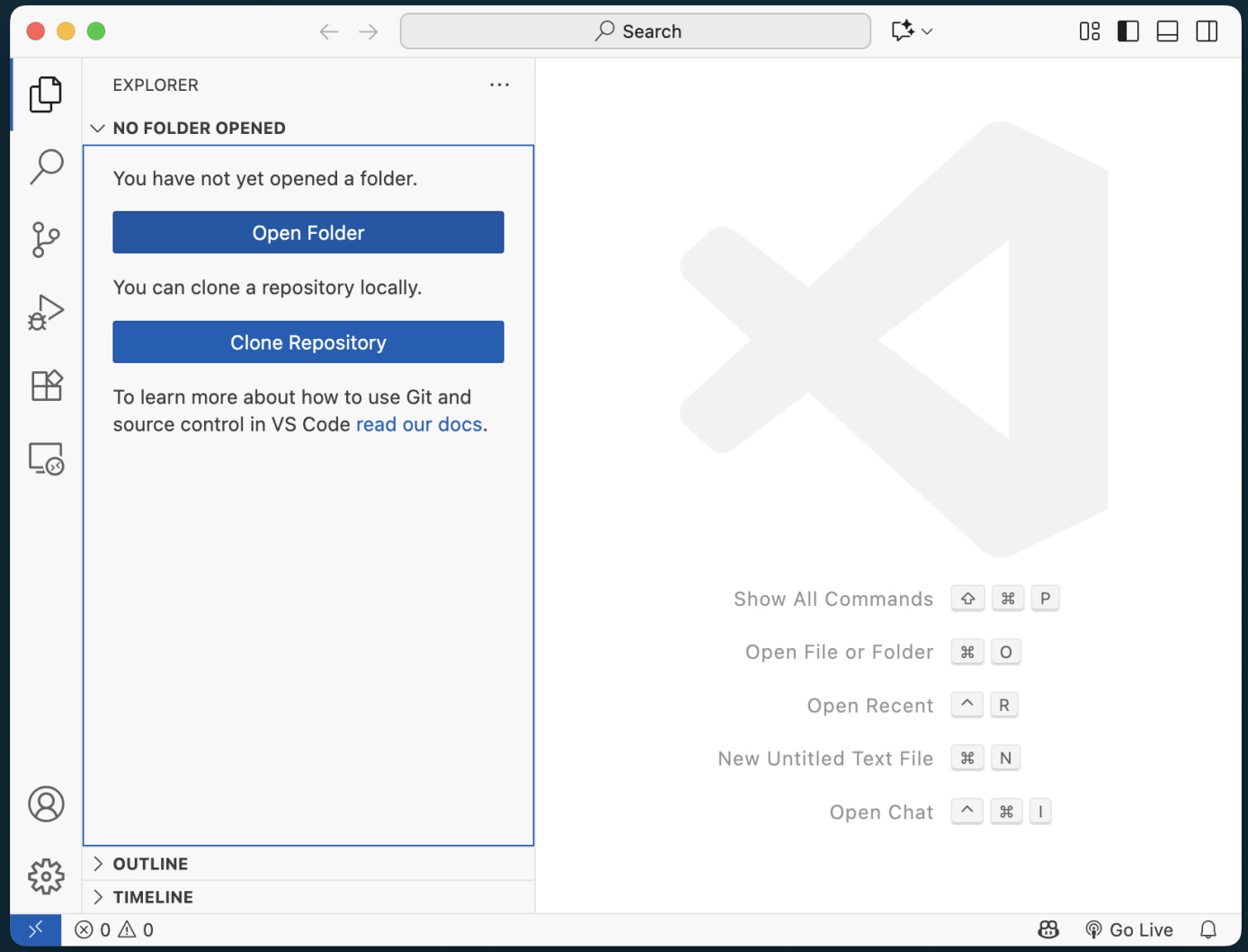
VSCode is a code editor we'll be using through the course.

If you haven't already, download it from code.visualstudio.com



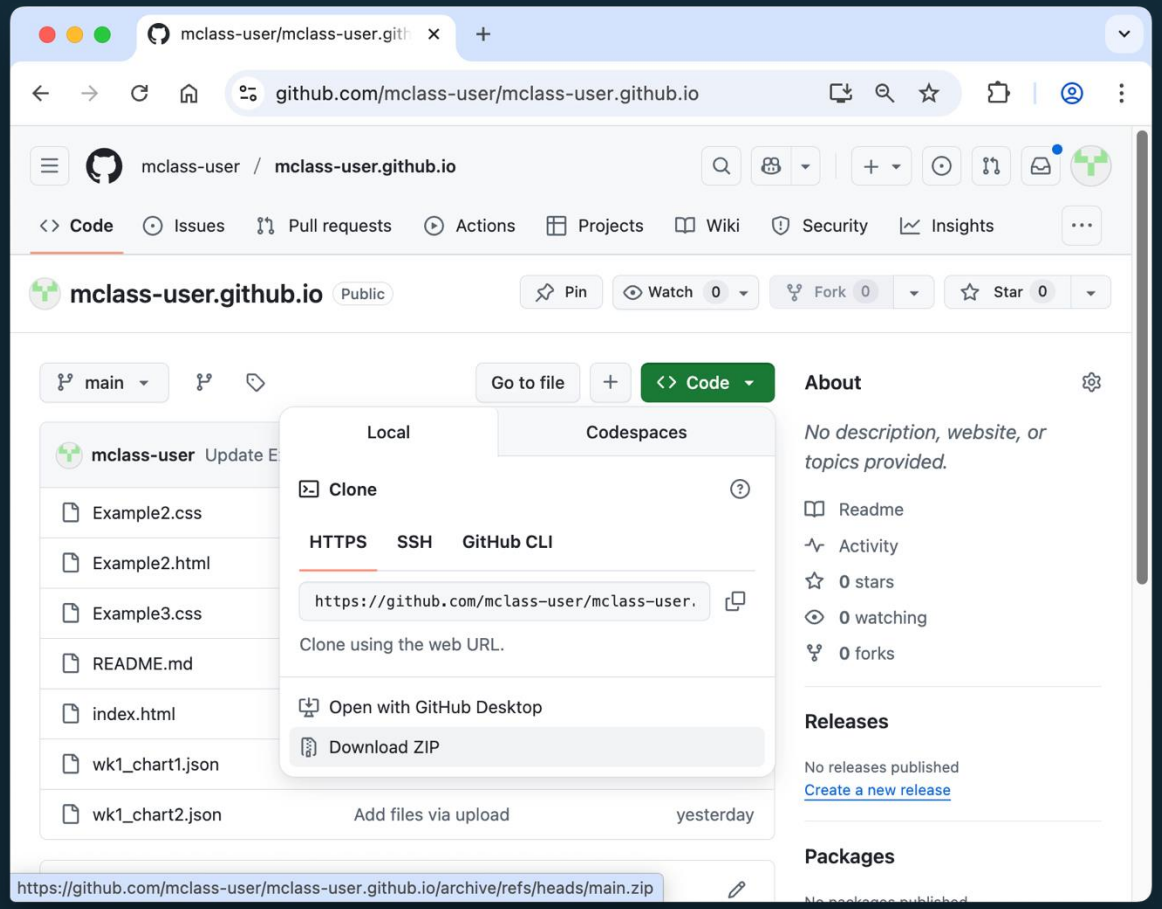
VSCode.

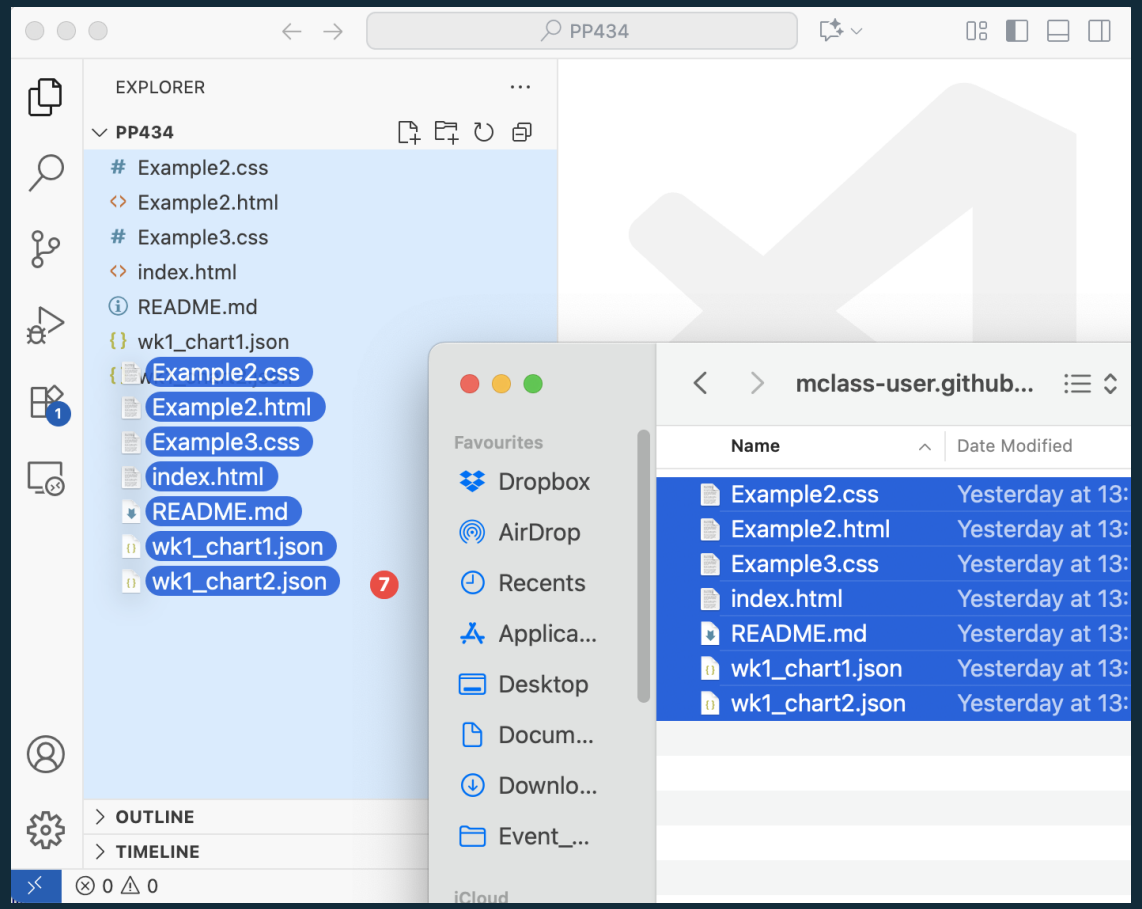
With it, we'll organise edit and preview our code. To get started. Click 'Open Folder' and choose where you'll keep your course files.



Downloading your code.

Navigate to your repo on GitHub, and download a zip of your code. Bring the files into VSCode.





Embedding a chart.

There is one page already on your index.html. Two parts of the page are responsible for its inclusion:

The <section> with a <figure> that defines where the chart will go.

```
<!-- We're organising the page into sections, with each section containing a chart, title and a description -->
<section>
    <div class="chart-description">
        <h2>Section 1: A basic chart</h2>
        <p> <!-- This is a paragraph, it's the main way to display text on a web page -->
            We've organised the page into sections, with each section containing a chart, title and a description. Here, we can describe the chart and give some context.
            As a first example, we're using a basic chart from our repo.
        </p>
    </div>
    <figure id="Location1"></figure> <!-- we give it an id so we can put a vega-lite graph here with VegaEmbed -->
</section>
```

And the <Script> that puts the chart there.

```
<script>
    // This is a comment in JavaScript - it's a different language to HTML and CSS

    let figure_1_spec = "https://raw.githubusercontent.com/EconomicsObservatory/courses/main/2/s2_chart2.json"; // We're storing the URL of the graph we want to display in a variable
                                                                                                                  // You should have a spec for a graph in this same folder. Just specify its name

    vegaEmbed('#Location1', figure_1_spec) // We're using the vegaEmbed function to put a graph in the element with id figure_1

    // Do you want to add more graphs?
    // try defining a new variable for figure_3_spec, adding VegaEmbed for Location3, and adding a new section in the HTML
    // e.g.
    // let figure_3_spec = ...
    // vegaEmbed('#Location3', figure_3_spec)
```

They are linked by the id (i.e. id="Location1").

Embedding a chart.

Two ways to pull in a chart.

1. Local (relative) link. Charts already stored in your repository can be embedded by referencing file name. This is relative,

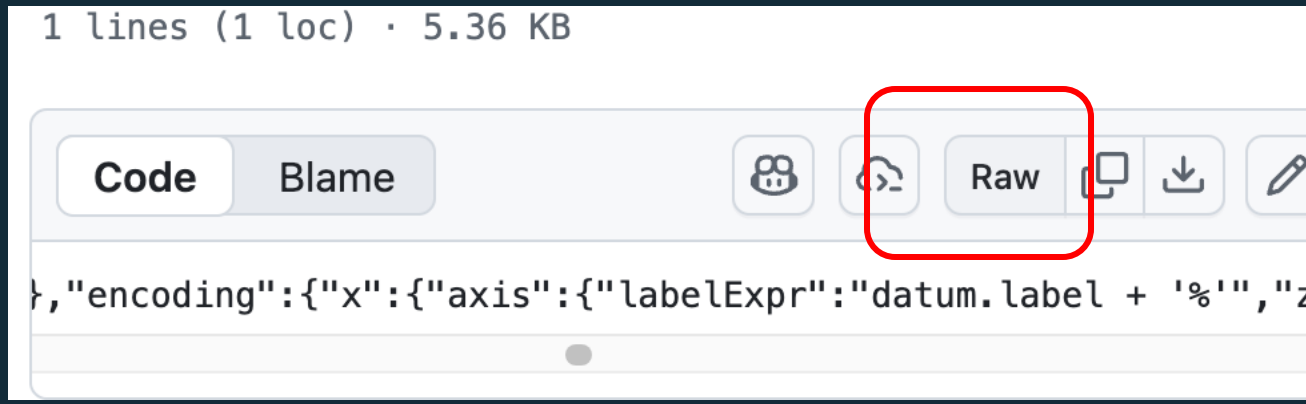
```
90        figure_3_spec = "aChartspec.json";
91        vegaEmbed('#Location3', figure_3_spec)
```

2. Full URL using a ‘raw’ GitHub link. Charts stored in other GitHub repositories can be linked using a raw file URL.

```
<script>
    // This is a comment in JavaScript - it's a different language to HTML and CSS

    let figure_1_spec = "https://raw.githubusercontent.com/EconomicsObservatory/courses/main/2/s2_chart2.json";

    vegaEmbed('#Location1', figure_1_spec) // We're using the vegaEmbed function to put a graph in the element wi
```



FINDING CHARTS.

Find interesting charts via:

- Substack. Read our Substack, and find the chart specifications here: https://github.com/EconomicsObservatory/datavis
- Economics Observatory. You can find lots of ECO visualisations here: https://github.com/EconomicsObservatory/ECOvisualisations
- Chart Library. Collection of different chart examples here: https://rdeconomist.github.io/library

Practical.

By the end of this session, you should have:

- A live website, with 3 charts added
- VSCode and GitHub setup
- Started to customise your website