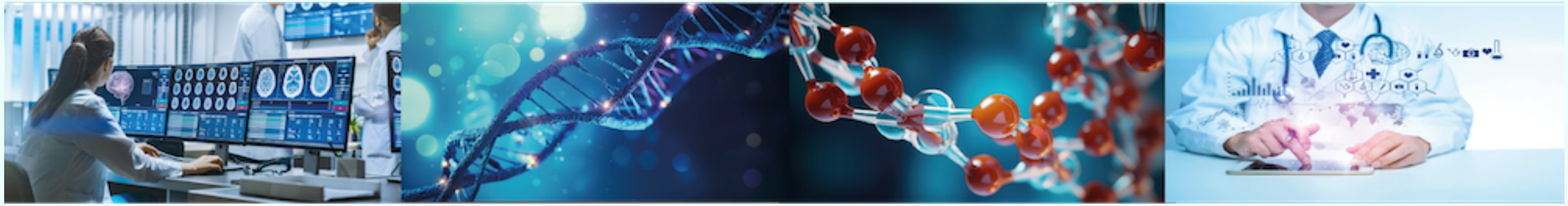


Programming for Biomedical Informatics

Lecture 1 - Welcome & Getting Started

https://github.com/tisimpson/pbi

Ian Simpson
ian.simpson@ed.ac.uk

THE UNIVERSITY of EDINBURGH
informatics

Course Organisation

- **Lectures**
  - Weeks 1-4, 6-11
  - Tuesdays 11:10 - 12:00
  - Thursdays 13:10 - 14:00
  - Recorded and released same day
  - All slides and videos will be put on GitHub
- **References & Reading**
  - Relevant books, websites, papers, & any other sources will be in lecture slides and coding notebooks.
  - These will be collated on dedicated pages on GitHub for easier access
- **Materials**
  - Everything will be available via the course GitHub
  - https://github.com/tisimpson/pbi

- **Assessment**
  - 10x weekly assignments on GitHub Classroom (20% of overall course mark, 2% each - pass/fail - used to gauge understanding & engagement with the course.
  - Intended to practice something small from the previous week and/or introduce a resource for you to look at
  - As the course progresses these will be predominantly coding problems/examples - supposed to be fun (!)
  - End of semester exam (80% of overall course mark)
  - New course - will be introducing example exam questions and discussing model solutions through the course
  - Exam prep session & Q&A in week 11
  - **Communication**
    - EdStem - all course discussion and questions (including private questions) please use it!

Course Topics

Week	Week Commencing	Weekly Topics (background, application)
1	16th September	(L1) Course Introduction & Setup, (L2) Working with Notebooks & Git
2	23rd September	(L3) Introduction to the Biomedical Dataverse, (L4) Finding & Fetching Data
3	30th September	(L5) Mapping and Harmonisation, (L6) Data Integration & Summary Analysis
4	7th October	(L7) Biomedical Evidence, (L8) Mining & Analysing Biomedical Literature
5	BREAK	
6	21st October	(L9) Measuring Gene Expression, (L10) Differential Gene Expression (GXD)
7	28th October	(L11) Biological Networks, (L12) Network Construction Techniques
8	4th November	(L13) Essential Network Methods, (L14) Network Analysis in Practice
9	11th November	(L15) Structuring Biomedical Data with Ontologies (L16) Functional Analysis
10	18th November	(L17) Working with Multiple Data Modalities, (L18) Modelling at the Patient Level
11	25th November	Course Review, Exam Prep, and Q&A session

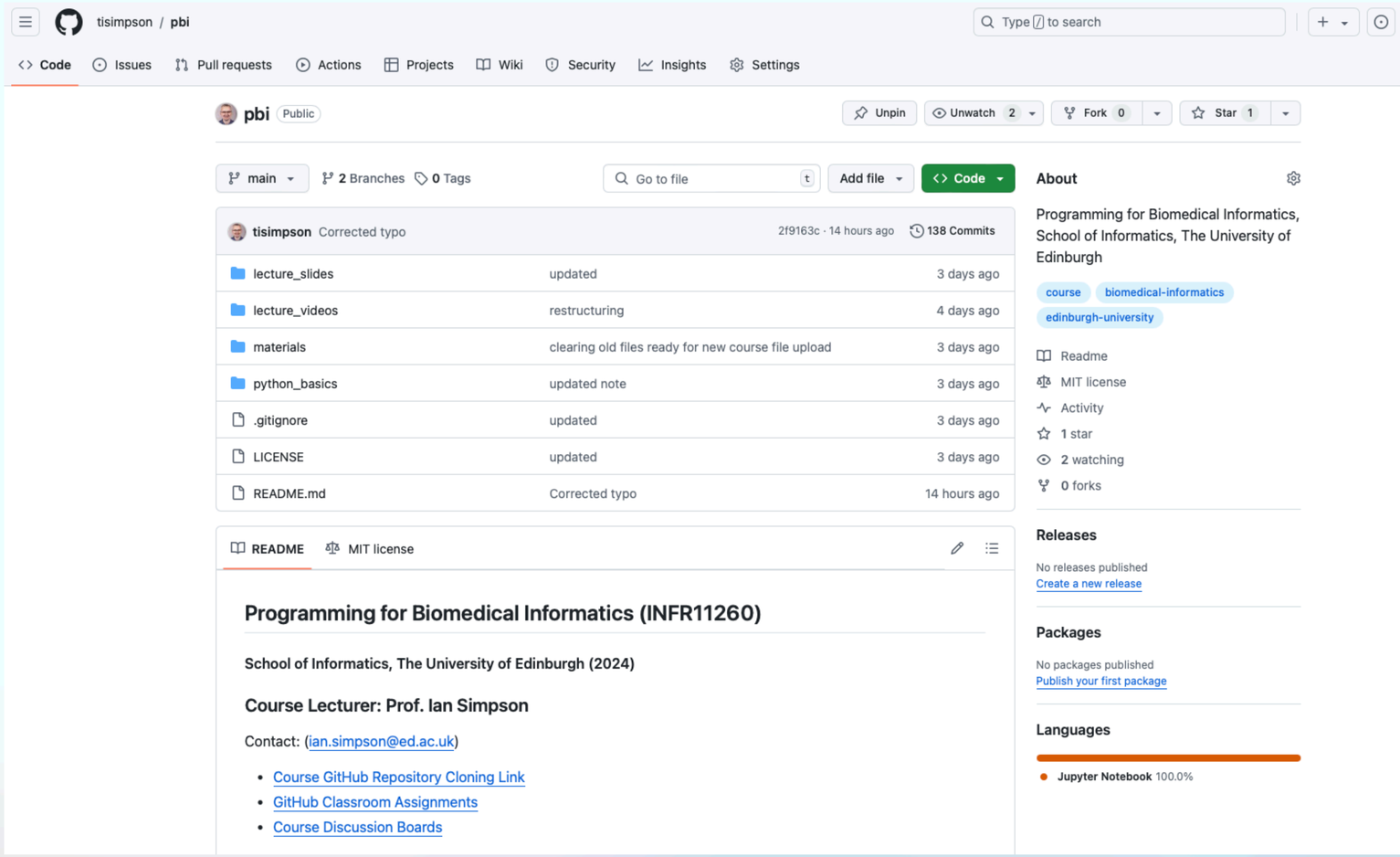
foundation

application

Course Setup

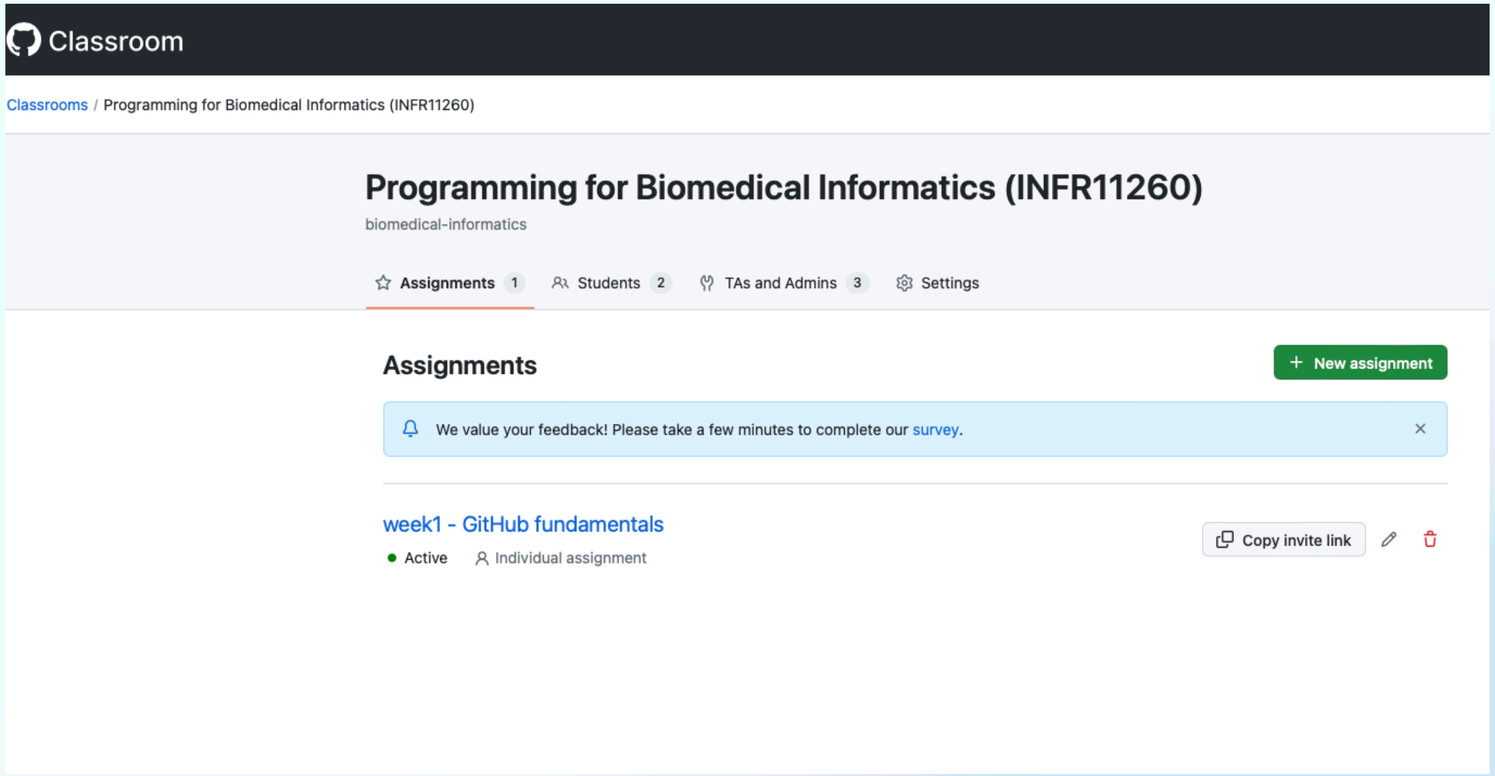
GitHub

https://github.com/



Course Setup

GitHub Classroom

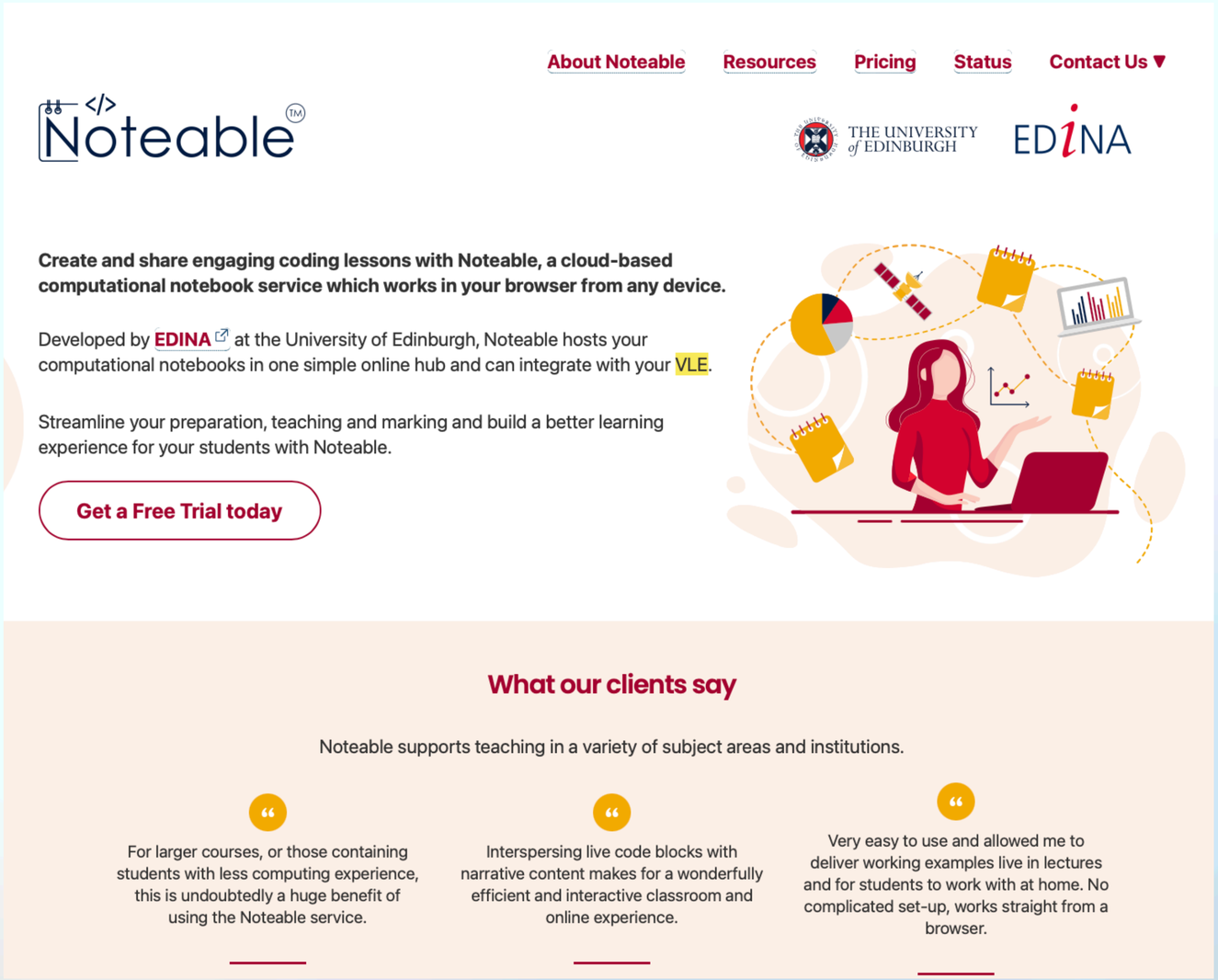


https://github.com/biomedical-informatics

Course Setup

Notable

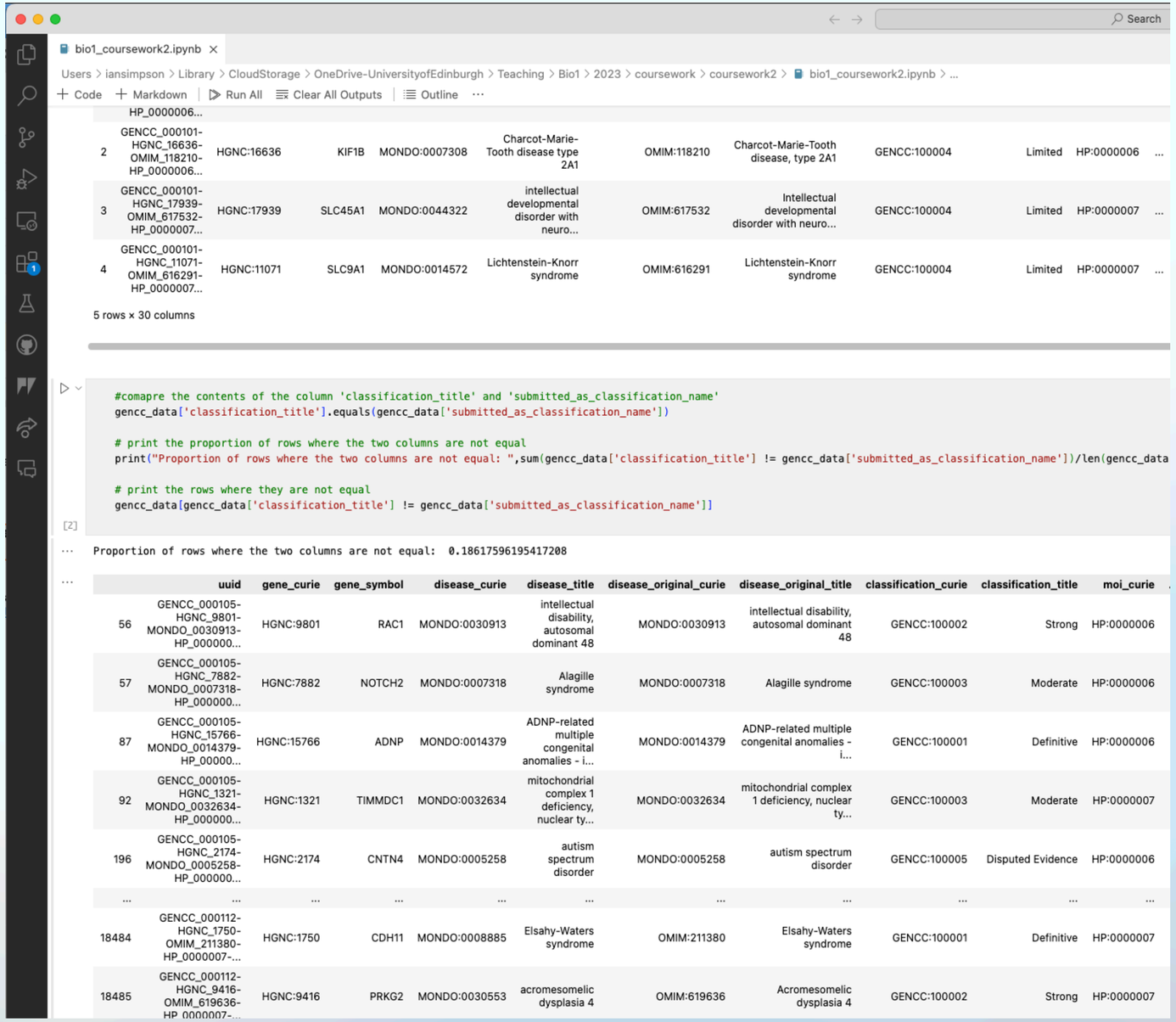
https://noteable.edina.ac.uk/



Course Setup

VisualStudioCode

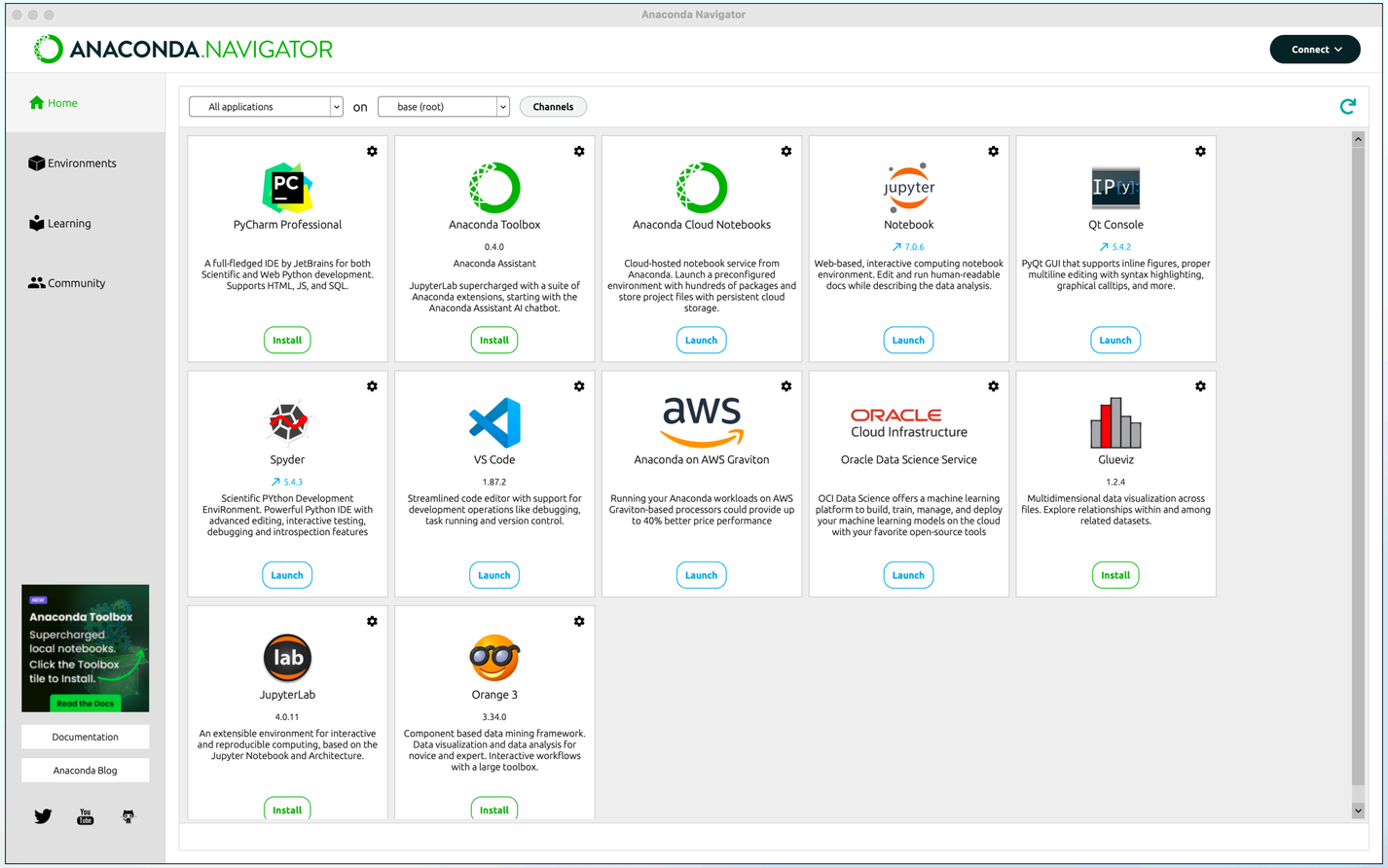
https://code.visualstudio.com/

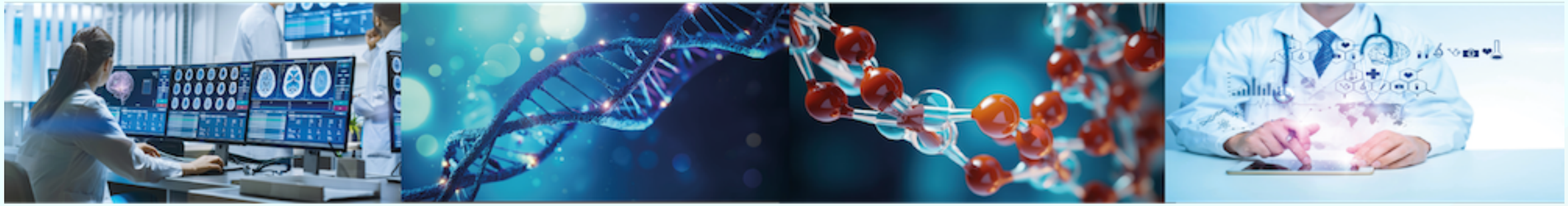


Course Setup

Anaconda/miniconda

https://www.anaconda.com/





Programming for Biomedical Informatics

Next Lecture this Thursday - “Working with Notebooks & Git”

Please Bring your Laptop!

Ask Questions on the EdStem Discussion Board

https://github.com/tisimpson/pbi

THE UNIVERSITY of EDINBURGH
informatics