Discrete Mathematics

Topic 00 — Module Introduction

Lecture 31 — Guide to the Python Colab Practicals

Dr Kieran Murphy

Department of Computing and Mathematics,
Waterford IT.
(kmurphy@wit.ie)

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Outline

- Locating and open python notebooks on colab
- Completing your work
- Downloading your work from colab and uploading to Moodle

Course Locations

- Main entry point.
- Uploading of assignments.
- Online quizzes.

- All static content
- Links to python notebooks
- External resources

- Instant messaging (timetable changes etc)
- Public and one-to-one questions

- View, edit and run python notebooks.

Outline

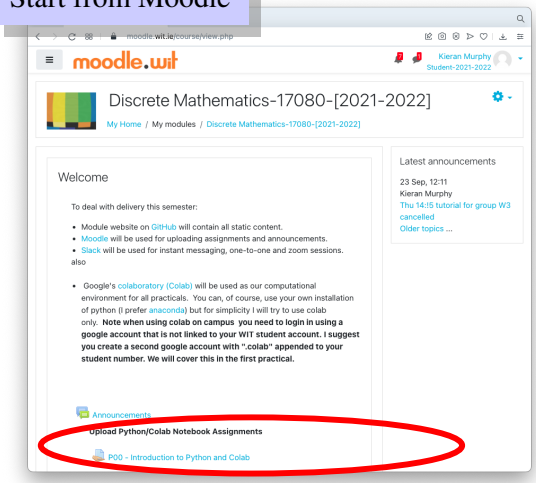
Step 1 — Locating and Opening Notebooks

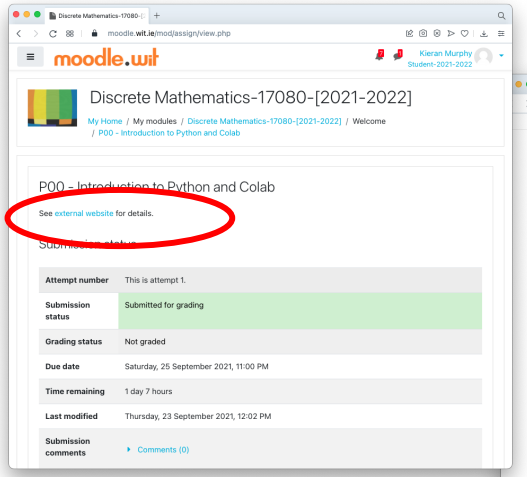
Start from Moodle

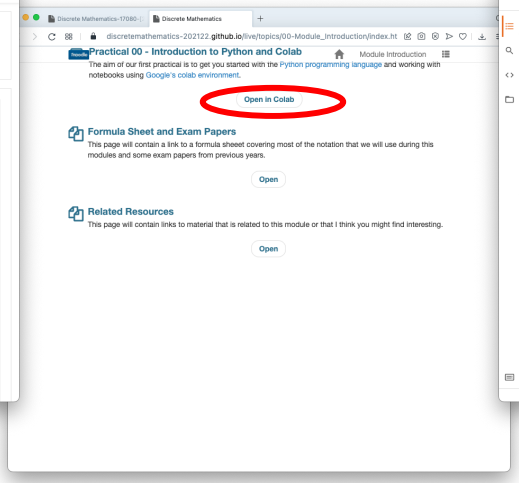
Select notebook from list

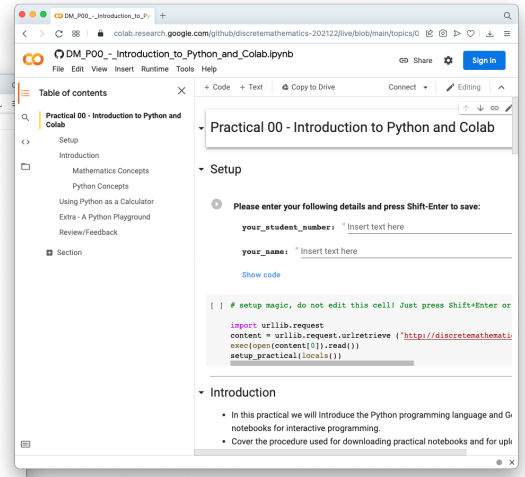
Click on link to external website

Open notebook using Colab

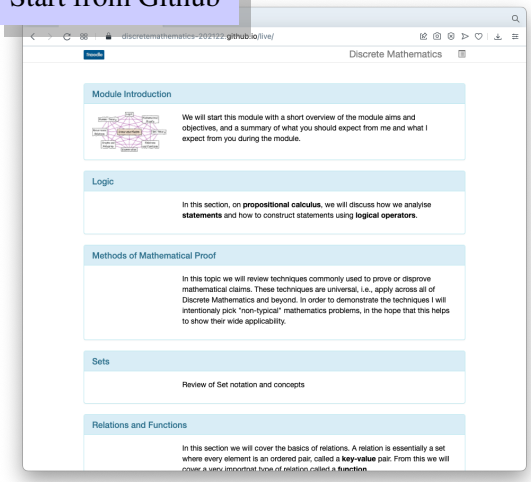








Start from Github



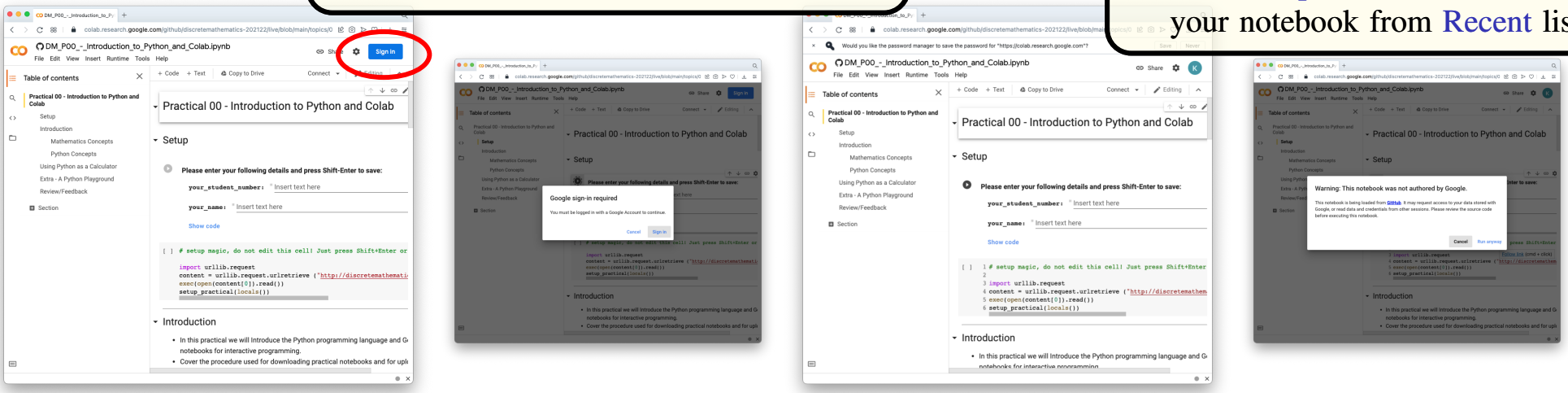
Navigate to required topic, then to required notebook

Step 2 — Login Before You Start Editing . . .

- Login before editing.
- Use a **different Google account** from your WIT linked student account.
- Use only one Google account[‡] with Colab.

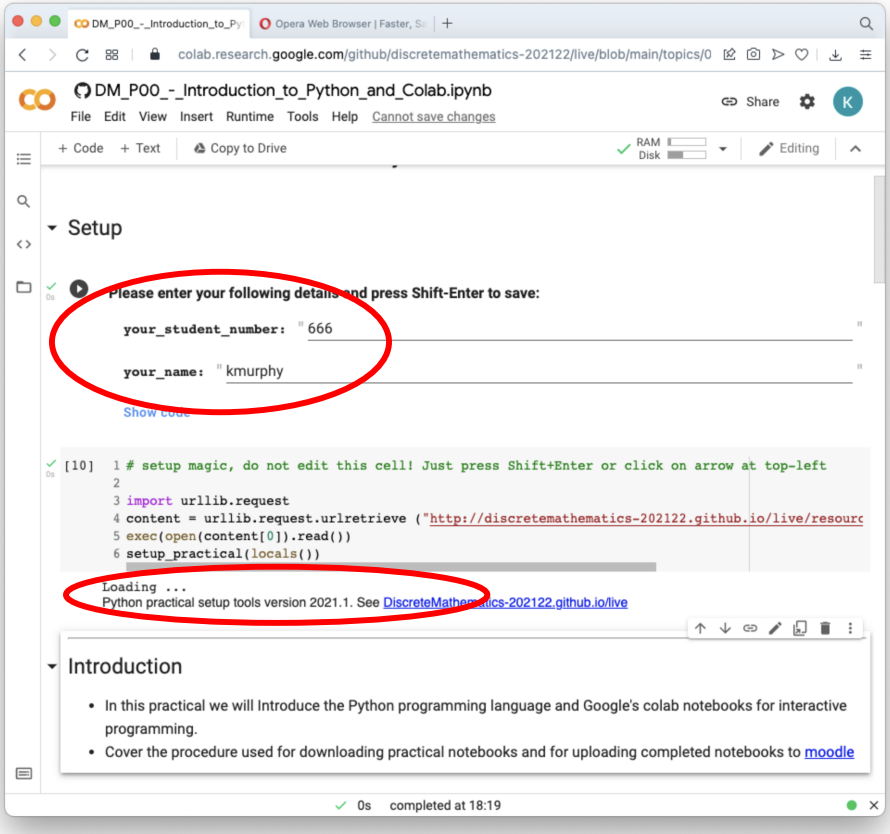
When you run a cell you will get a 'This notebook was not authored by Google.' warning:

- To edit (the just opened) notebook click on Run Anyway.
- To continue editing from a previous session, click Cancel, then select menu File → Open notebook, then select your notebook from Recent list.



[†]Switching between Google accounts is a pain. To avoid this I use a separate browser for Colab work. The Opera browser is a good option.

Step 3 — Enter Details and Run Practical Setup. . .

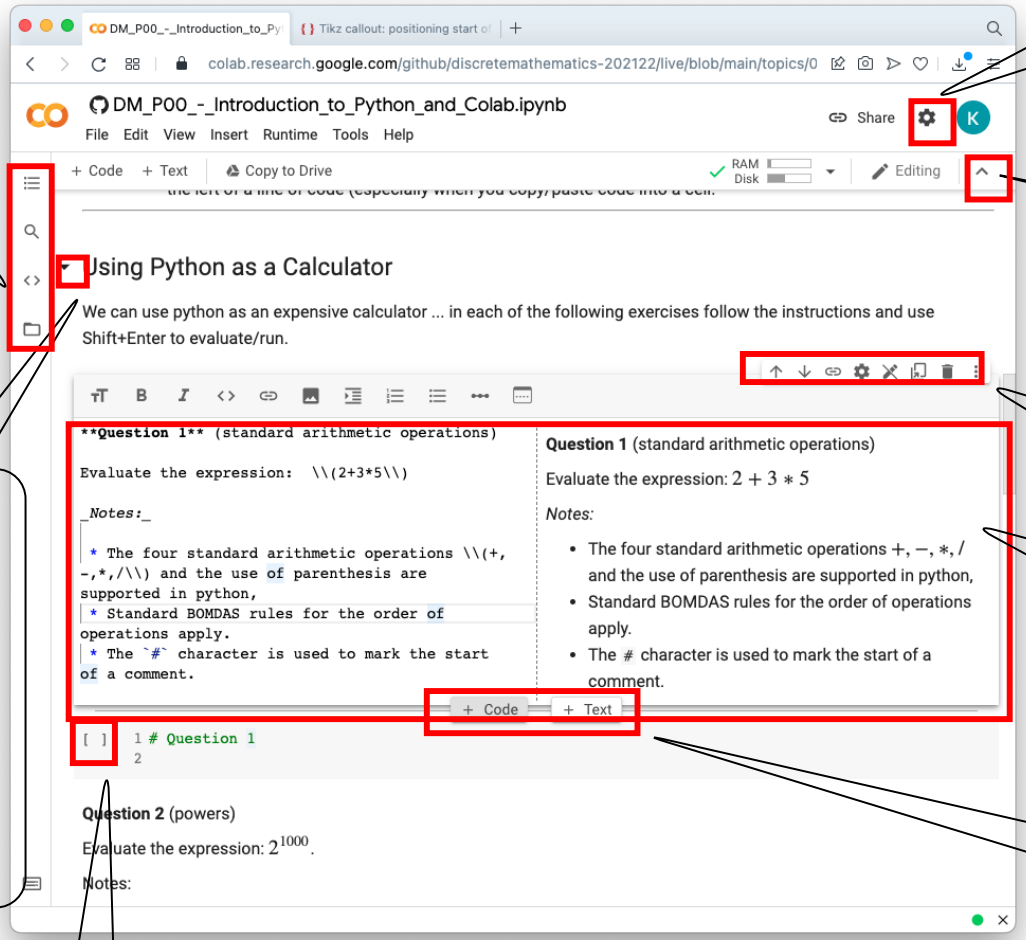


- In the first cell, enter your student number and name and exceute the cell.
- Execute the second cell to complete the setup.
  You should see message:
  "`Python practical setup tools ...`",
  The version number is currently `2021.1`, but this will change.

Outline

Edit and Working with Notebooks

Toolbar to show/hide table of contents, find/replace, code snippets, and files.



Click to access setting including hide/show line numbers

Click to hide/show menu & ribbon

This toolbar appears when editing a cell. Buttons move cell up / down, delete etc.

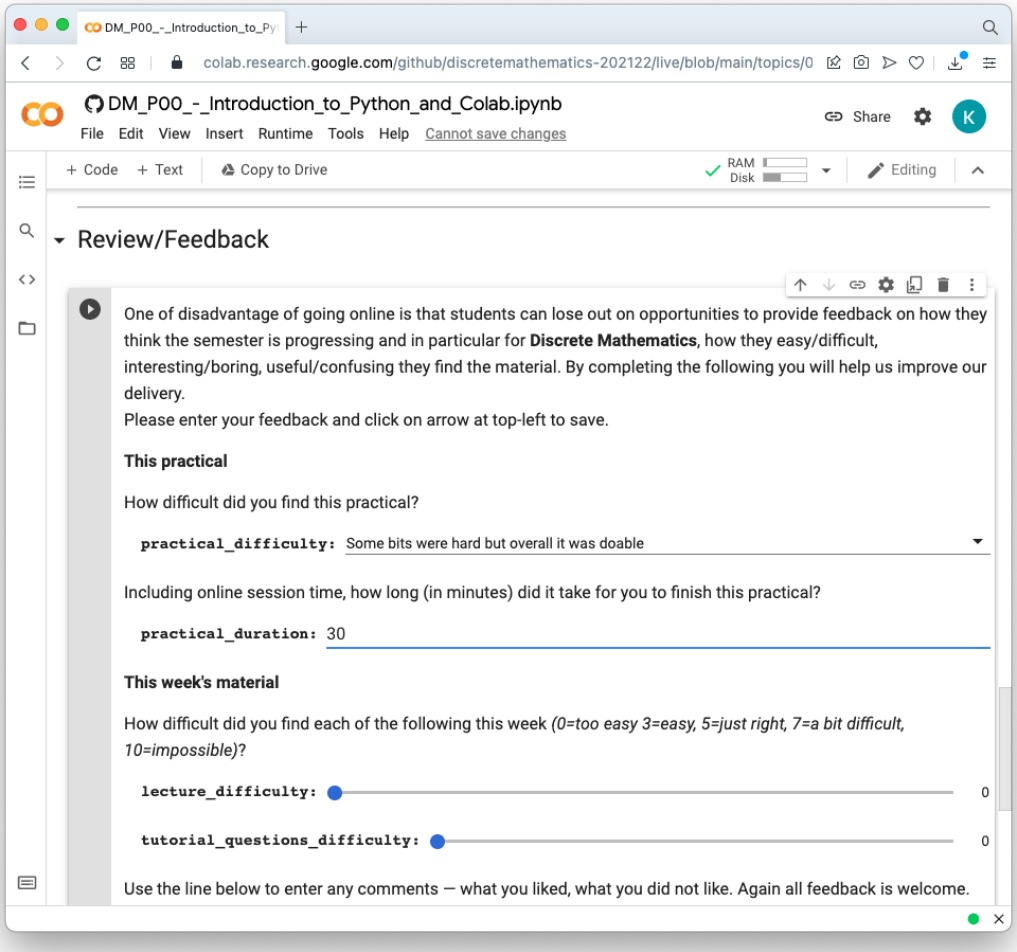
When editing a text cell, the cells splits into two — the left is the source (in markdown) and the right is the generated output.

Move mouse pointer to centre of top or bottom edge of cell to insert a code (or text) cell in that location.

Click on the arrow to hide/show section. (This is called code folding.) When hidden see note for number of hidden cells.

Click on the [ ] or ▶ to run the current cell.

Review / Feedback

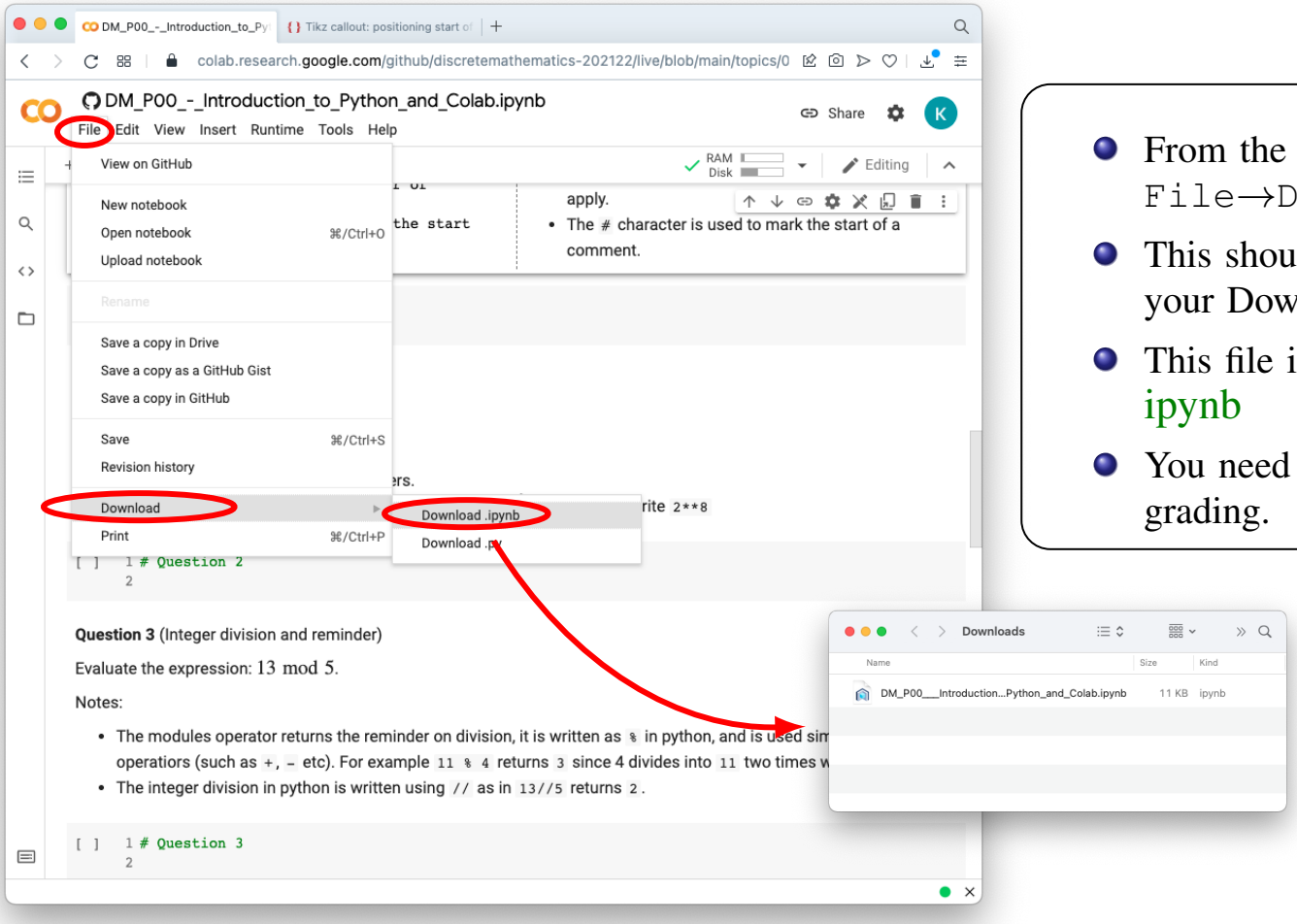


At the end of each notebook, we have a short questionnaire which we would like you to complete so that we can have a better idea as to how you are fairing. Everything entered here will be taken in the strictest confidence and we will do our best to address any issues. We are interested in:

- Difficulty of material — are we assuming too much prior knowledge? do we need to give me examples? etc.
- The length of time you spend on the Discrete Mathematics activities — both spending too little and spending too much time on an activity is common.
- Is there anything that we should start/stop doing?

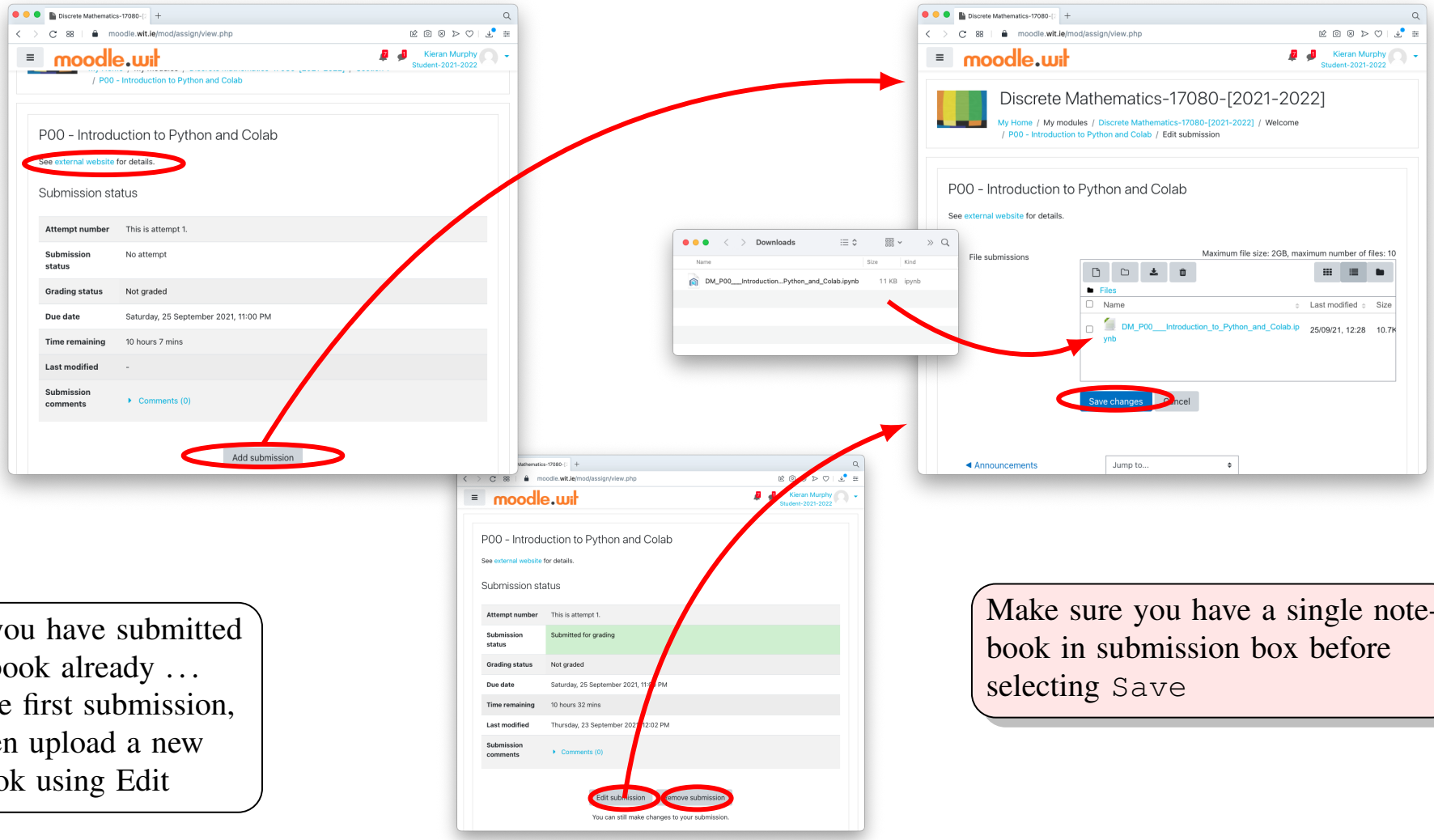
Outline

Download Notebook as a ipynb



- From the Colab menu select `File→Download→Download ipynb`.
- This should store a copy of your notebook in your Downloads folder.
- This file is a text encoded file with extension ipynb
- You need to upload this file to Moodle for grading.

Uploading and Submission to Moodle



Or, if you have submitted a notebook already … Remove first submission, and then upload a new notebook using Edit

Make sure you have a single notebook in submission box before selecting `Save`