Important dates

- **Post on an idea to Piazza** (this can be very briefly stated) by end of Monday November 6; **comment on two other ideas** by end of Wednesday November 8.

- **Brief project presentations**: Wednesday, November 29, 11.30a-1.30p (we will extend class by 30 minutes for those without a conflict). *Everyone must attend!* This presentation is an opportunity to share what you’ve been doing with other students. Your project probably won’t be finished yet, though...

- Project due: **Tuesday December 5, 5p**. A hard deadline, submit to Canvas.

- **Optional** poster session: Dec 5, 12-2p, MD ground floor lobby. Posters would need to be ready by Friday Dec 1. We’ll write out closer to the date to ask who would like to do this.

Overview

The goals of the final project are to allow you to explore independent interests, learn more about a particular area, and to practice teamwork and presentation skills. Many types of projects are possible, including theoretical, experimental, and survey papers. Projects that are suitably open-ended should ideally be done in groups of two, or even three. Survey papers should generally be written by one person.

*Using Piazza:*

- Post to Piazza if you’d like to find a partner for the final project.

- We have seeded a discussion of projects on Piazza. You should submit a brief post on an idea for a project, and participate in the discussion.

The project proposal is NOT graded.

Your project proposal must be **at most two pages**.

Crucially, it should provide enough detail to allow the teaching staff to provide useful feedback; e.g., (a) how does the project relate to the class, (b) what would the deliverable be, (c) provide references if your project is related to existing work in the academic literature.
You may choose to submit two suggestions (still within two pages). That way, we can suggest which of the two projects seems more suitable. Ask specific questions that will help us to provide useful advice.

Possible topics

These include:

- Make connections between a digital economy platform and topics that we have covered in class; e.g., discuss the features of a real market or matching platform, and relate these to the theoretical frameworks that we’ve studied.

- Read the chapter notes for a topic you’ve particularly enjoyed,¹ and provide an exposition of one or two related papers. This means writing a paper that convincingly demonstrates understanding of the main result in each of your selected papers.

- Complete an in-depth study of something we’ve discussed in class; e.g., Bitcoin, advertising exchange design, the PPAD-completeness of Nash, etc.

- Study in more detail a computational problem we’ve briefly discussed, perhaps coding up an algorithm and testing it on simulated data. This could relate to matching, or winner determination in combinatorial auctions, for example.

- Identify a question related to topics discussed in class that you would like to study in more depth, scoping your work carefully so that you will be able to make progress (e.g., by proposing a concrete simulation, or a very well-defined, accessible theoretical question).

- Develop an entrepreneurial idea, drawing a connection with topics discussed in class, and identifying and studying a precisely stated, technical question. Discuss why the idea could have commercial value.

- Study revenue-optimal auctions via simulation

- A project related to digital currencies, block chain, or smart contracts (lecture is not until 11/13).

These are just suggestions. You can do something very different as well. Please ask if you are unsure!

Papers should not be longer than 10-12 pages, and a good paper should say what it needs to say as succinctly as possible.

¹If the citations are not provided in the chapter notes, and you can’t find them, please post to Piazza.