Design: Iteration

No screens

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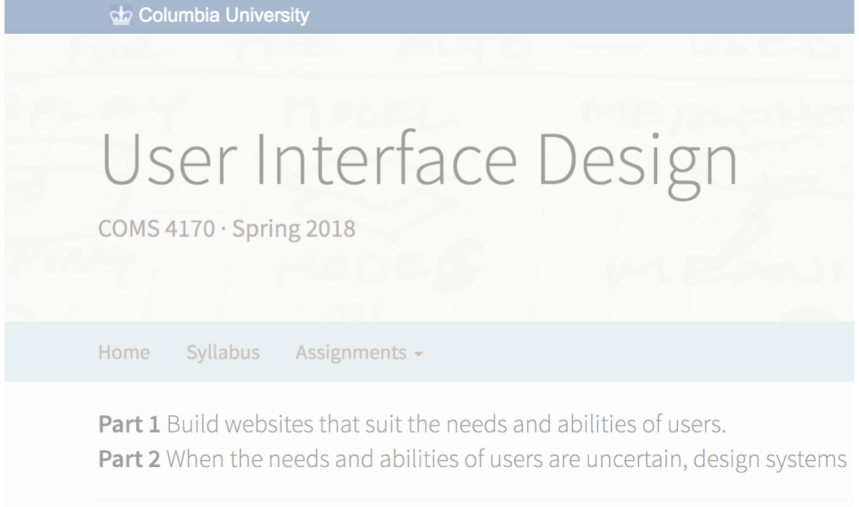
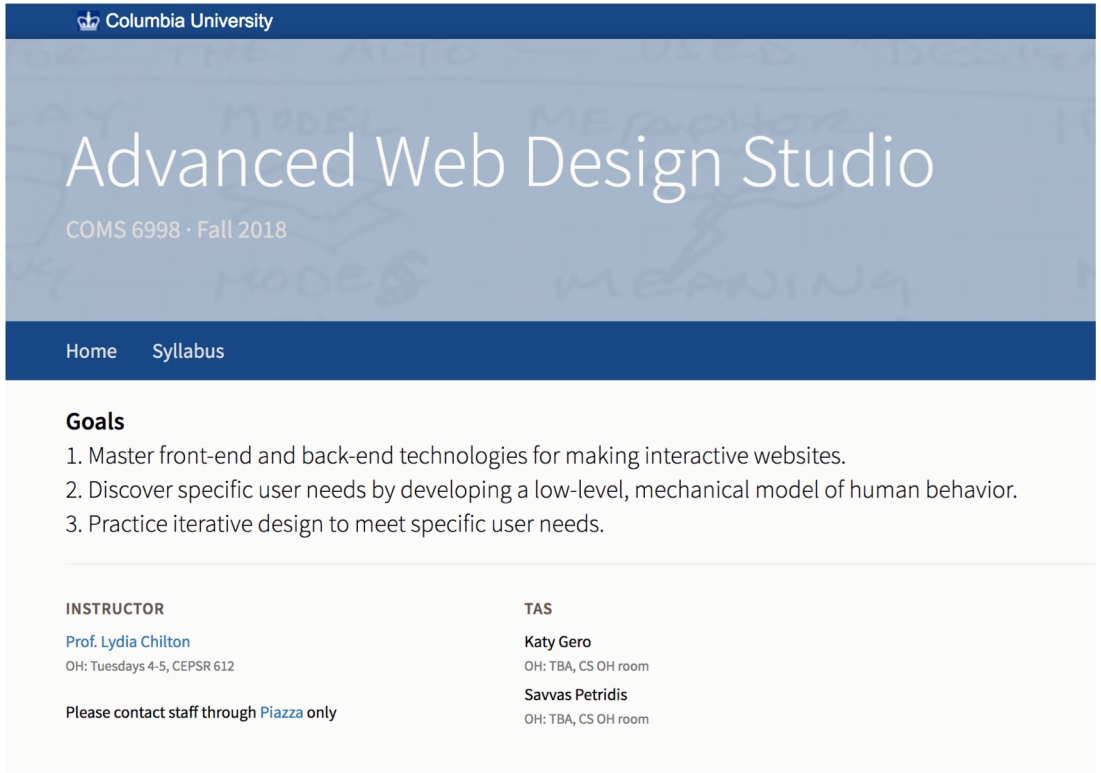
COMS 6998
2 November 2018



You already know front-end web dev:
HTML, JavaScript, Bootstrap, jQuery

And design:
Iterative design, critique



You will learn back-end web dev:

- Server-side programming (Flask),
- Databases (Sqlite, SQLAlchemy)
- Real-time Communication (Socket.IO)

And practice web design by:

- Rebuilding IMDB.com
- Rebuilding twitter
- Pursuing your own project

Today’s goal:

Pick a project &
Come up with a timeline

Project Requirements

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  - Meets a specific user need
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  - Does the primary functionality work?
  - Does the secondary functionality work (user accounts, log in)

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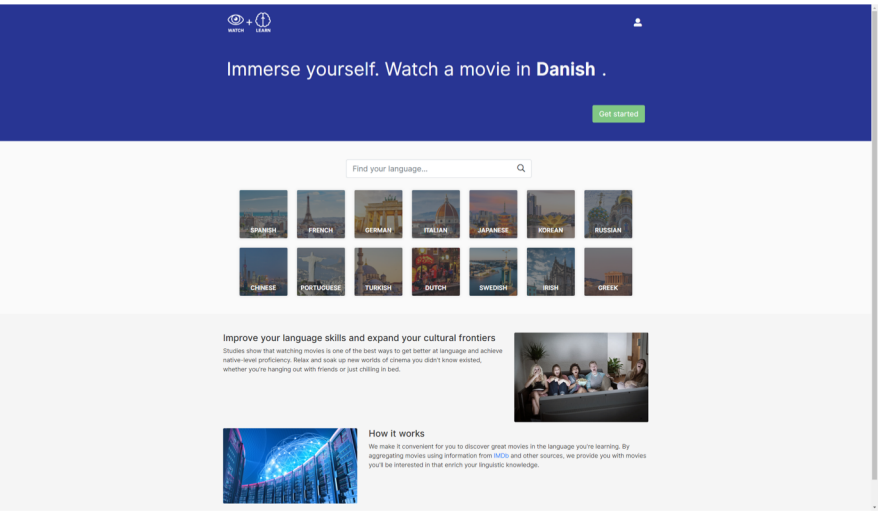
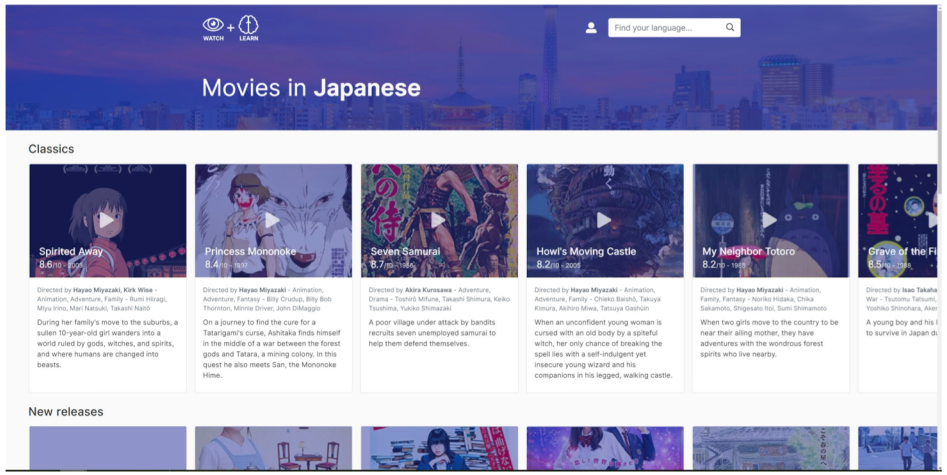
  - Must be a website with a database using CRUD or real-time data interaction.
  - Does the primary functionality work?
  - Does the secondary functionality work (user accounts, log in)
- **Graphic Design (40%)**
  - Does the graphic design help the user focus on their task and complete the goal?

Expectations





Specific user goal:
Find a movie in a language you are learning

Functionality:
Helps the user meet their need –
Can play the movie right away!

Know when it's met:
Do they start watching it?
(Or put it in their queue)

Graphic design:
Nice big pictures. (primary)
Layout groups movies by type. (primary)
Picture of city in background (secondary)

Warning
Sales pitch: *"immerse yourself"*
Specific user goal: *"find a movie"*

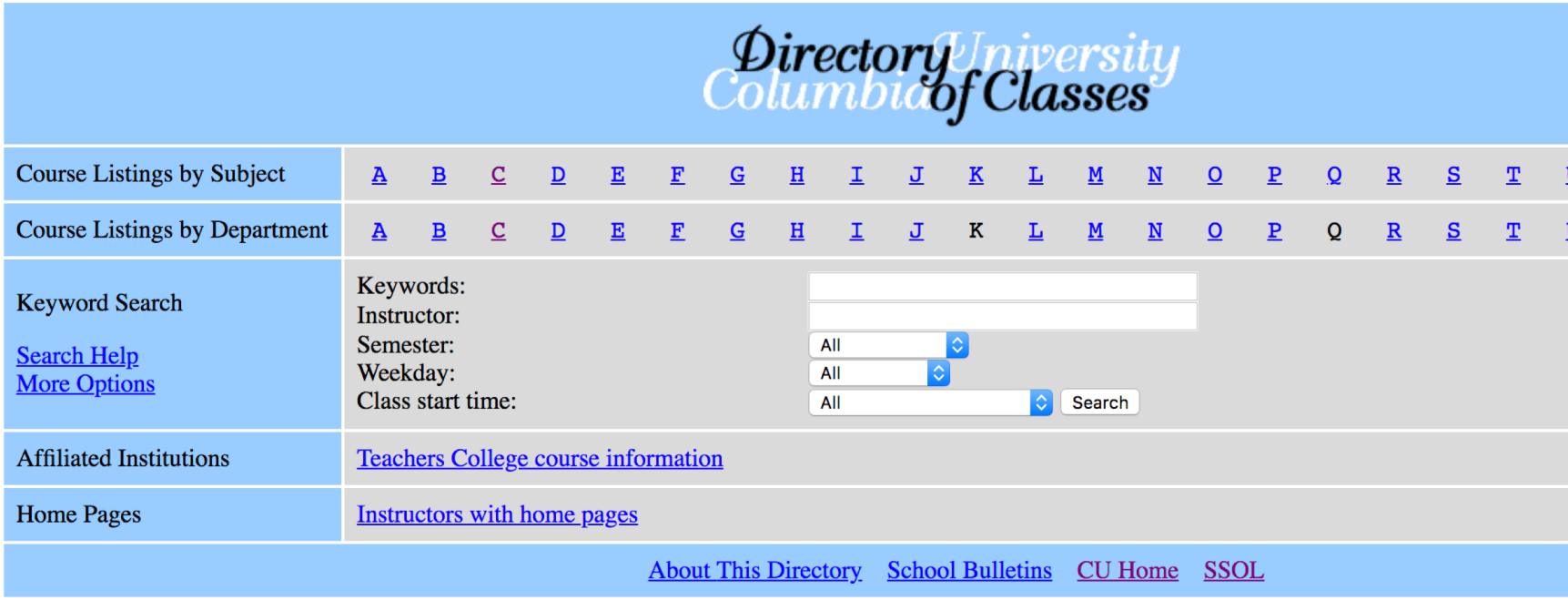
Would you accept this?

Criteria:
1. Addresses a specific user needs?

2. Know when need is satisfied?

3. Functional?

4. Graphic design guide user?



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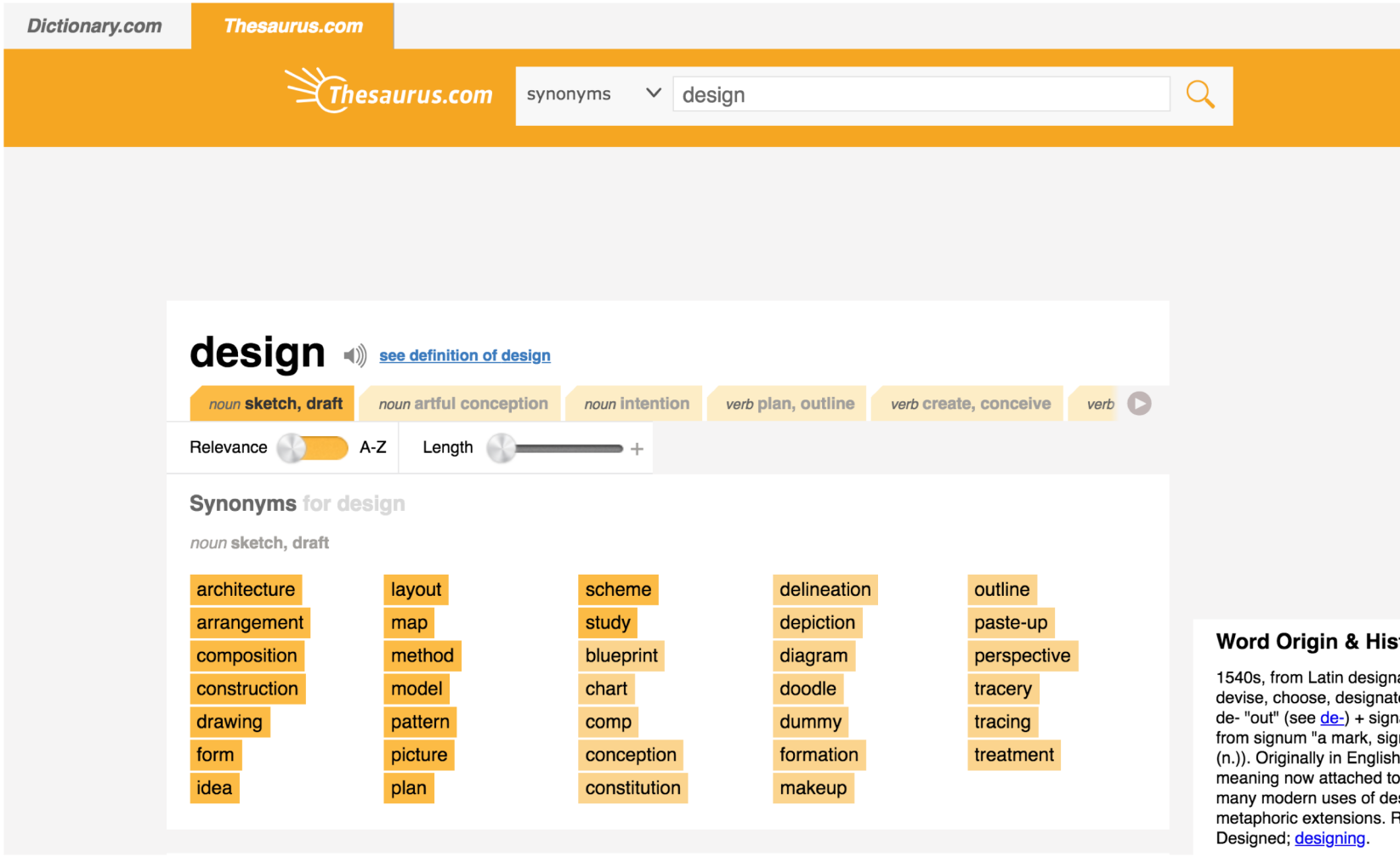
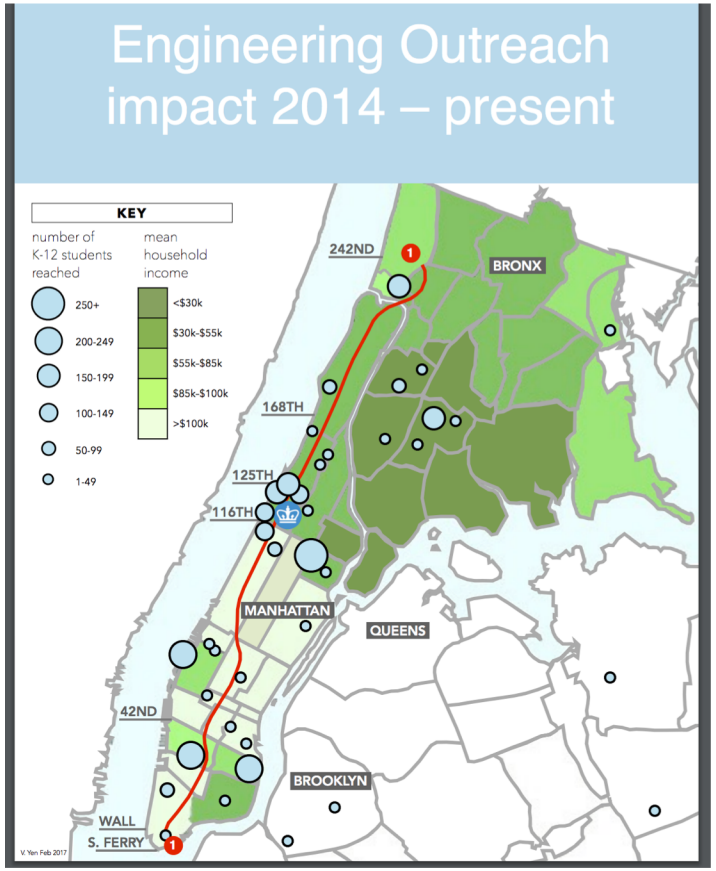
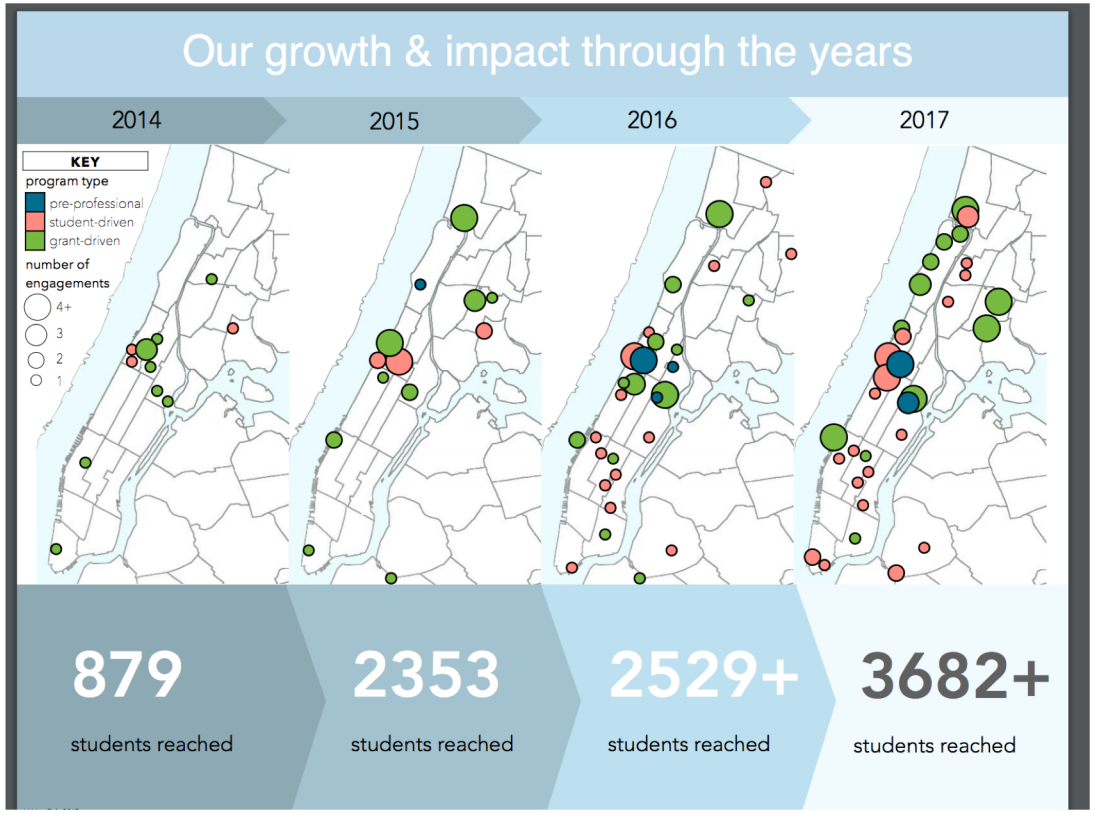


If you aren’t excited about any of your ideas, consider this project

Client: Columbia Outreach

Specific user goal: Take data they have on outreach goals and map it to answer some questions.

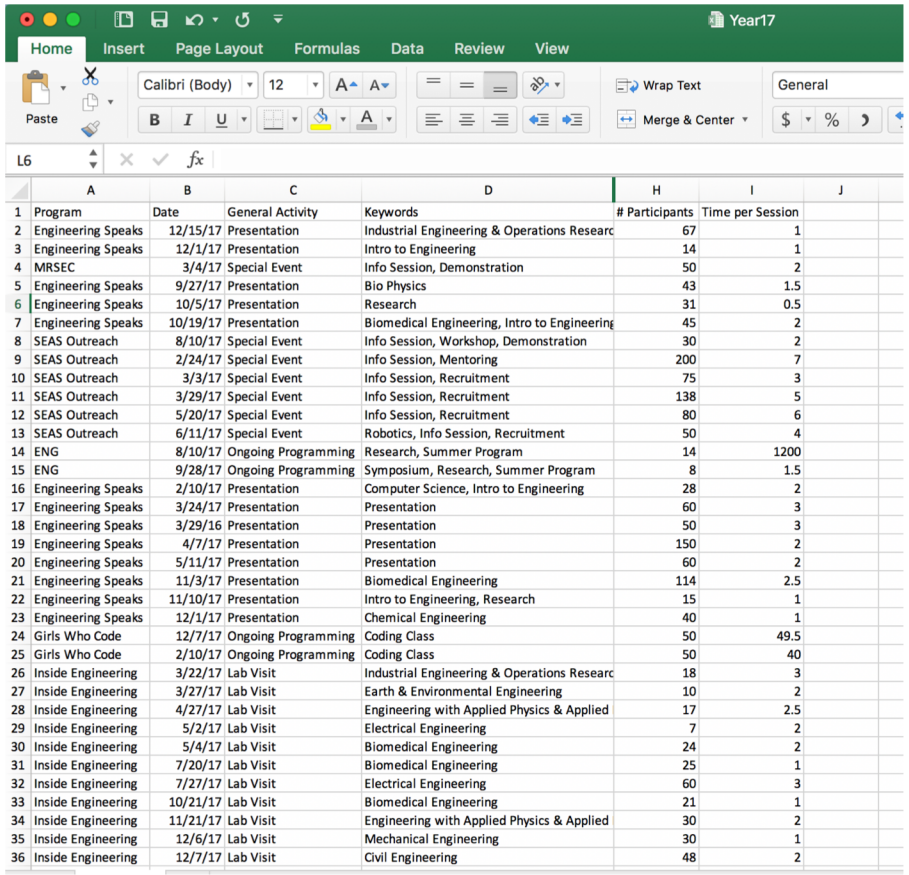




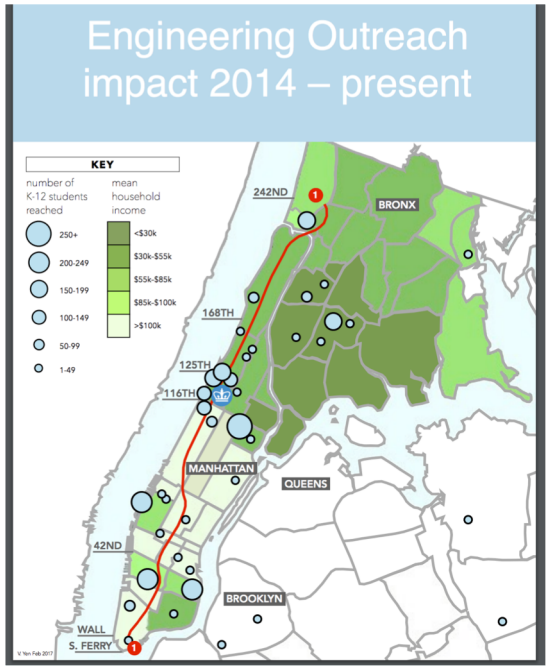
What projects reach the most students?

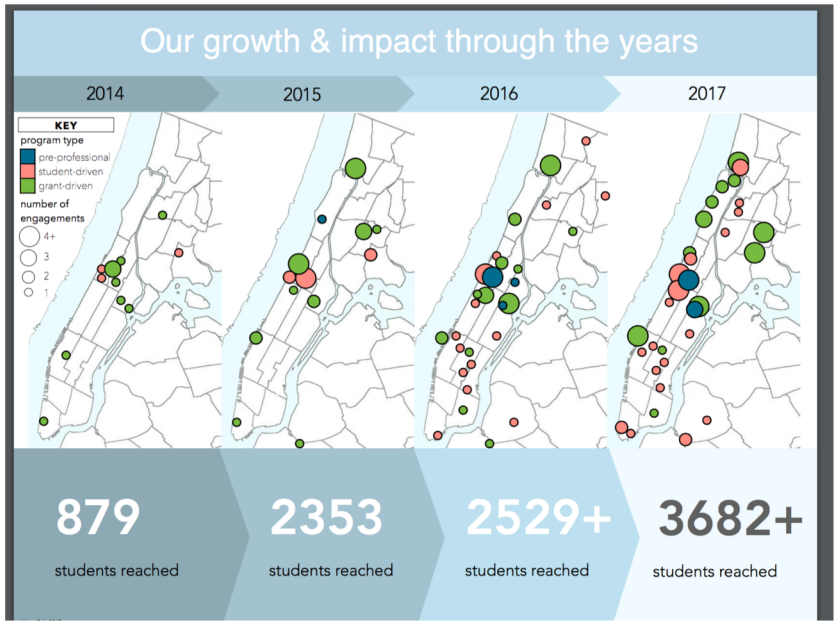
Over the years, what locations and program types have grown the most?

You will get 2017 data in Excel.
Build tools to query the database



	A	B	C	D	H	I	J
1	Program	Date	General Activity	Keywords	# Participants	Time per Session	
2	Engineering Speaks	12/15/17	Presentation	Industrial Engineering & Operations Researc	67	1	
3	Engineering Speaks	12/1/17	Presentation	Intro to Engineering	14	1	
4	MRSEC	3/4/17	Special Event	Info Session, Demonstration	50	2	
5	Engineering Speaks	9/27/17	Presentation	Bio Physics	43	1.5	
6	Engineering Speaks	10/5/17	Presentation	Research	31	0.5	
7	Engineering Speaks	10/19/17	Presentation	Biomedical Engineering, Intro to Engineering	45	2	
8	SEAS Outreach	8/10/17	Special Event	Info Session, Workshop, Demonstration	30	2	
9	SEAS Outreach	2/24/17	Special Event	Info Session, Mentoring	200	7	
10	SEAS Outreach	3/3/17	Special Event	Info Session, Recruitment	75	3	
11	SEAS Outreach	3/29/17	Special Event	Info Session, Recruitment	138	5	
12	SEAS Outreach	5/20/17	Special Event	Info Session, Recruitment	80	6	
13	SEAS Outreach	6/11/17	Special Event	Robotics, Info Session, Recruitment	50	4	
14	ENG	8/10/17	Ongoing Programming	Research, Summer Program	14	1200	
15	ENG	9/28/17	Ongoing Programming	Symposium, Research, Summer Program	8	1.5	
16	Engineering Speaks	2/10/17	Presentation	Computer Science, Intro to Engineering	28	2	
17	Engineering Speaks	3/24/17	Presentation	Presentation	60	3	
18	Engineering Speaks	3/29/16	Presentation	Presentation	50	3	
19	Engineering Speaks	4/7/17	Presentation	Presentation	150	2	
20	Engineering Speaks	5/11/17	Presentation	Presentation	60	2	
21	Engineering Speaks	11/3/17	Presentation	Biomedical Engineering	114	2.5	
22	Engineering Speaks	11/10/17	Presentation	Intro to Engineering, Research	15	1	
23	Engineering Speaks	12/1/17	Presentation	Chemical Engineering	40	1	
24	Girls Who Code	12/7/17	Ongoing Programming	Coding Class	50	49.5	
25	Girls Who Code	2/10/17	Ongoing Programming	Coding Class	50	40	
26	Inside Engineering	3/22/17	Lab Visit	Industrial Engineering & Operations Researc	18	3	
27	Inside Engineering	3/27/17	Lab Visit	Earth & Environmental Engineering	10	2	
28	Inside Engineering	4/27/17	Lab Visit	Engineering with Applied Physics & Applied	17	2.5	
29	Inside Engineering	5/2/17	Lab Visit	Electrical Engineering	7	2	
30	Inside Engineering	5/4/17	Lab Visit	Biomedical Engineering	24	2	
31	Inside Engineering	7/20/17	Lab Visit	Biomedical Engineering	25	1	
32	Inside Engineering	7/27/17	Lab Visit	Electrical Engineering	60	3	
33	Inside Engineering	10/21/17	Lab Visit	Biomedical Engineering	21	1	
34	Inside Engineering	11/21/17	Lab Visit	Engineering with Applied Physics & Applied	30	2	
35	Inside Engineering	12/6/17	Lab Visit	Mechanical Engineering	30	1	
36	Inside Engineering	12/7/17	Lab Visit	Civil Engineering	48	2	





First task: reproduce these types of charts

Studio: Review Prototypes. Help you pick a project.

- Count off by 4 –
  - We need a volunteer to go first in each group
  - Introduce your 3 ideas and your prototypes
  - Which one are your leaning towards? Ask for feedback.
    - If you see problems, speak up!

- Groups 1 & 2 – Discuss as a group first. Then Katy and I will come around.
- Groups 3 – Discuss with me, then as a group
  - Discuss!
- Group 4 – Discuss with Katy, then as a group

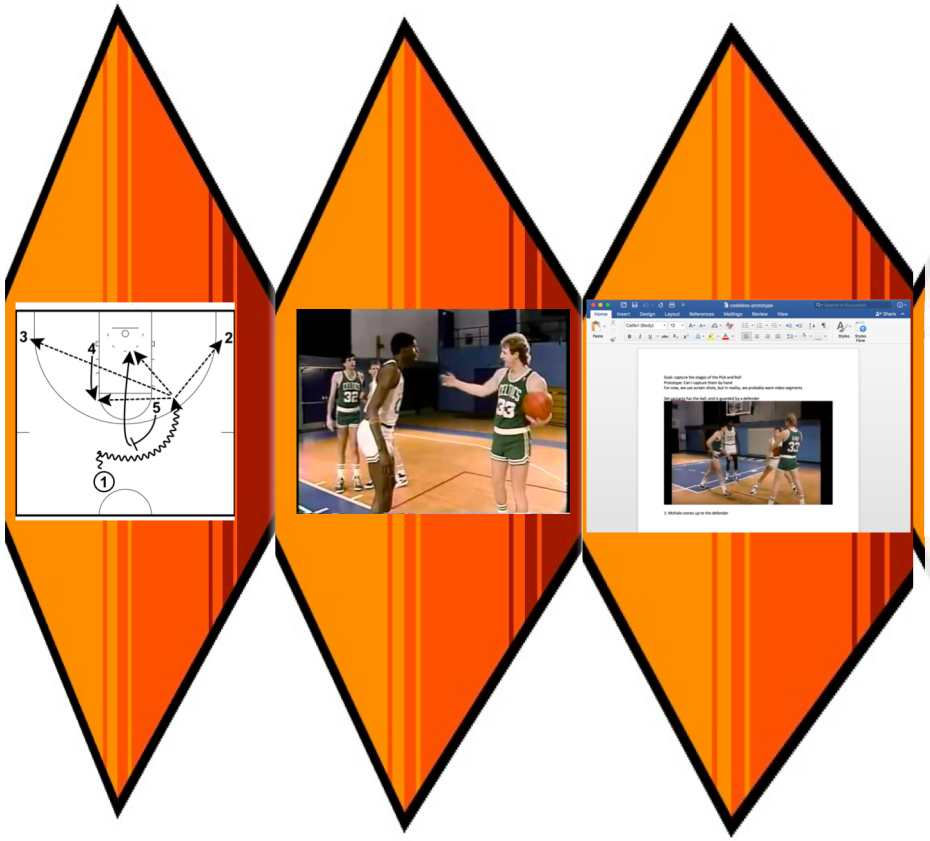
Due today by 9pm – what idea will you pick? Fill out a weekly plan.

Final Project: **Timeline**

- Week 9: November 2 (today)
  - **Idea**: Low-Fi Prototypes due
  - Project Proposals on Piazza
- Week 10: November 9 due:
  - **Functionality**: One key (risky) feature implemented and user tested
  - In class user testing
- Week 11: November 16 due:
  - **Functionality**: Iterate on key feature + implement supporting feature
  - In class user testing
- Week 12: November 30 due:
  - **Graphic Design**: Decide the user flow through the application and how the graphic design will help them navigate
  - in class: how do users know their goal is done?
- Week 13: December 7 due:
  - **Graphic Design**: make it pretty! Thematic images, fine tune white space, fonts, and sizes of things.
  - In class: Turn in draft of final write up – bring it to class. Get feedback.
- Week 14: **Thursday** Dec 13 11:59
  - Lots of office hours!
  - DUE

We use iteration to minimize risk by **prototyping** the riskiest elements first.

Idea:
Help NBA fans Recognize the strategy during games



Idea **Resources** **Design**

Paper! **Google it!** **User test!**

Technical Design Idea Design

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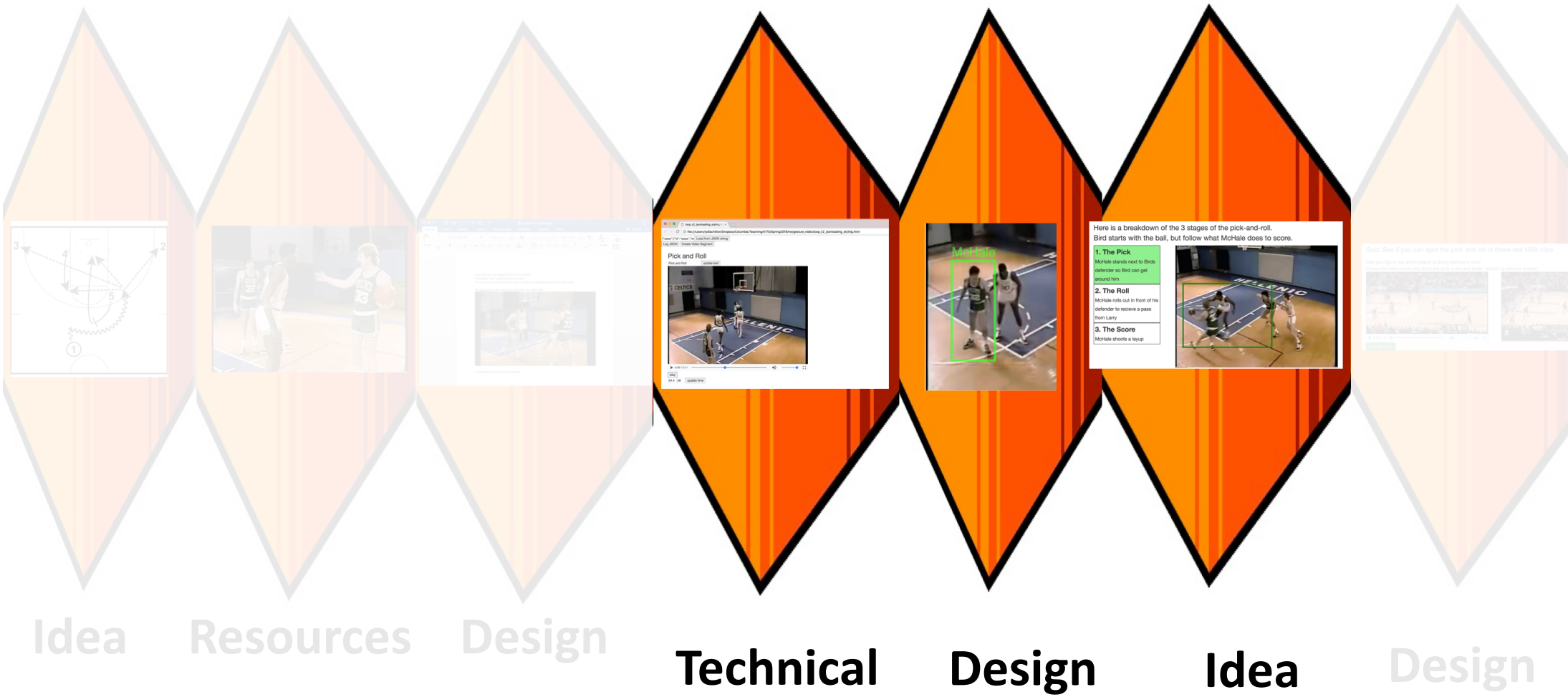

Final Project: What to **turn in**

- **A write up**
  - What's the specific user goal?
  - What is the concrete steps they take to achieve it.
    - Take a screen shot and say what the user does
    - And what graphic design elements guide them to do it.
- **A video** of the user accomplishing their goal
- **Your code**
  - We will only run your code as a last resort!

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