Project #2: Visualize Me, Captain!

Data Boot Camp

Lesson 18.1

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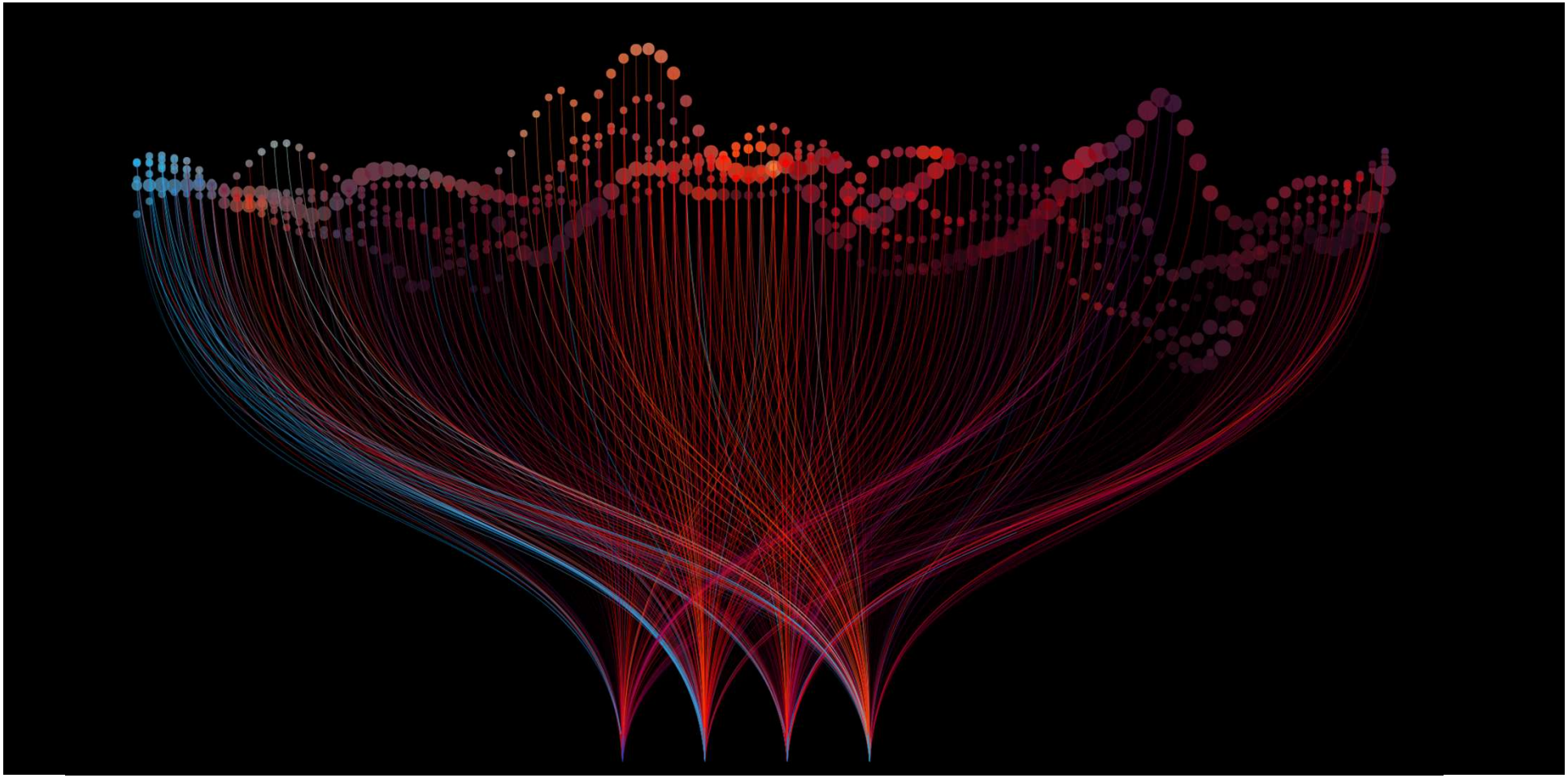
Your Task

Tell a Story with Data



What?

Project Requirements

Overview

01 Your task is to **tell a story** with data visualizations.

02 Focus on providing users an **interactive means** to explore data themselves.

03 Prepare a **20-minute presentation** that lays out your theme, coding approach, data munging techniques, and final visualization.

04 You may choose a project of any theme, but we encourage you to **think broadly**.

05 You will have **ample time in class** to work with your group, but expect to put in **hours outside of class** as well.

Project Requirements

Create an interactive web site with dashboards (one or more pages) that either tells a story with data or provides a rich experience for allowing users to interact with data. Your project should meet the following requirements at minimum:

1. Include a Python Flask–powered RESTful API, HTML/CSS, JavaScript, and at least one cloud database (MySQL or Postgres on AWS or MongoDB on MongoDB mLab or Atlas).

2. Work with a data set that contains at least 500 records.

3. Contain database and web site integration through Flask where data manipulations are done using Python and/or JavaScript prior to visualization.

4. Use HTML, CSS, and Bootstrap with responsive design for all page components along with a functioning favicon.ico icon. Your project should render well on desktop and mobile devices.

5. Utilize Plotly and/or Leaflet to create one or more web dashboards with interactive, dynamic, filterable web visualizations and/or maps and include at least three views of the data.

6. Include some level of user-driven interaction (e.g., menus, dropdowns, textboxes).

7. Be deployed to Heroku and should be fully functional on any machine at any location.

Additional Requirements (for larger groups)

For larger project teams, additional project requirements include:

Groups of 5 should incorporate one of the following:

Groups of 6 should incorporate two of the following:

- Include at least one JavaScript library that we did not cover
- Deploy a bot that does automated data operations and updates a cloud database (real time, multiple times per day, or nightly)
- Incorporate web scraping into your project
- Include both a Leaflet map in addition to Plotly visualizations

Schedule

Project Schedule

Day 1 (Half session) – Tue, Feb 2:
Start brainstorming topics with your group and researching potential data sets. Your focus should center around:

- Selecting a topic
- Finding a data set
- Finding inspiration
- “Sketching” your ideal visuals

Day 2 (Half session) – Thu, Feb 4:
You will need to create a brief proposal that includes:

- A brief articulation of your chosen topic and rationale
- A few screenshots of relevant, “inspiring” visualizations that frame your creative fodder
- A sketch of the final design
- Set up our GitHub repo and assign clear roles

Day 3 (Half session) – Sat, Feb 6:
Project Work

- Collaborate and work in class with support from the instructional team

Day 4 (Full session) – Tue, Feb 9:
Hardcore Project Work!

- Collaborate and work in class with support from the instructional team

Day 5 (Full session) – Thu, Feb 11:
Hardcore Project Work and Presentation Prep

- Collaborate and work in class with support from the instructional team
- Begin preparing for your final project presentation

Day 6 (Full session) – Sat, Feb 13:
Pencils Down. Project Presentations!

- Showcase your fantastic work!

D3 homework has been waived and Leaflet homework has been postponed to allow you more time to focus on project work.

Final Thoughts

01

Project week is a great time to tie up loose ends, reinforce the material, and build practical, usable products.

02

If there are topics you'd like to review or if you have questions, please post in your project groups. The team will be around to monitor the groups.

03

NO SUPER OBVIOUS INSIGHTS or BASIC PROJECTS! We want for these presentations to inspire.

Good luck and have fun!

Project Teams

Project Teams

Project Team	Team Members
Team 1	Brooke, Katherine, Rebecca, Sree, Katherine
Team 2	Adam, Angela, Beili, Jared, Mahdi, Mike
Team 3	Jannette, Meakin, Nicholas, Regina, Sylvester, Vera
Team 4	Desiree, Redeat, Sveena, Taslemun, Thomas, William
Team 5	Ashley, Gene, Joseph, Leslie, Steven
Team 6	Alejandra, Fraol, Sam, Sandra, Tsegaye
Team 7	Anthony, Christina, Henry, Marilou, Renier

- Select a team name!
- Collaborate every day on Slack!
- Meet regularly!

Questions?