

Progress

Since the last milestone, we have developed and clarified the scope and goals of our project. We decided to focus on candidates for Senate. Each group member took on a different page and indicated specific features that we will accomplish before the final due date. We also copied the mini amazon skeleton into our repository and worked on understanding its implementation so that we can set up our own project.

Updated Proposal

Map/States

Basic requirements:

- This page will display an interactive map of the United States with states color coded by political party/parties of current senators. See [this link](#) for an open source interactive SVG map of states.
- This page will be the site's home page, allowing navigation to other pages in these ways:
 - The user can click on a state to access its individual State Page.
 - A menu at the top of the screen prompts the user to “explore by [candidate](#),” “explore by [committee](#),” and “explore by [issue](#),” and will redirect to home pages for the respective sections. Another option, “how this affects policy,” points the user to the [Donations/Voting Correlations](#) page.
- Pages for individual states, which are accessed through the interactive map, will display data from state senatorial races from 1979-2022. Data will be sourced from the [FEC candidate summary dataset](#) and the [MIT dataset](#) of state-level returns for elections to the US. Senate.
- Data is displayed in a table organized by election year. Each candidate in a certain year will represent a tuple, and political party affiliation, incumbency status, total receipts, and number of votes received are displayed.
- The user can navigate back to the main map via the menu.

Possible additional features:

- Hovering over a state will display candidates for Senate in the most recent election and total donations they received.
- Data from the most recent election is displayed graphically at the top of the page, with bar graphs illustrating relative donations and votes received.
- The winner of each election is highlighted in a different color.

Candidates

Basic requirements:

- Each candidate will have their own page which can be accessed directly from the home page through either the search bar or by clicking the map of US states.
- This page will show all of the donations which the candidate received. It will be shown as a table where each individual donation is a tuple in the table. These tuples will include the amount of the donation, the date of the donation, the person/group donating, and an optional note. The key of this table would be {amount, date, person}. Furthermore, the note column will allow for NULL values while the others would all be NON NULL.
 - This table can be sorted by amount, date, and person donating.
 - If the person who is donating is a committee, the table will include a link to the “Committees” page.
- The page will also include a table of donations grouped by the person/group donating. This will basically take the previous table and group by the person/group donating and then use the sum function to aggregate all the prices for that person/group.
- Lastly, if a candidate has been elected before, we will show their voting records. This table will include three columns: the bill, the date of the vote, and the direction in which the candidate voted (Yay, Nay, or Abstain). A user is able to compare these to the top donating groups and make their own conclusions based on the data. We will be getting this data from this website <https://voteview.com/data> which gives all voting data for each congress member. In these tables, however, Senators are identified by “ICPSR ID” so we will have to merge with the ICPSR ID table in order to get correct member names.

Possible additional features:

- Use word recognition techniques to sort bills and committees by industry
 - Will allow a user to see if a Senator is partial to industries which pay their salary

Committees

Basic requirements:

- Because U.S. congressional committees may both donate and be the recipient of donations (see [this link](#) for more details on allowed spending), it is vital to note any relevant donations involving Senate committees.
- For each of these committees, we will create a separate page that will display this two-way donation relationship with a relation containing attributes (from, to, amount), indicating from what group/individual the donation came from, to what group/individual the donation intended to donate to, and the amount of money. The committee itself may be part of either the from or to attributes.
 - For better organization and visualization purposes, we will have the ability to filter through these donations. These filters will include whether the donation was from or to the committee, and the type of the other party involved (whether it is an individual, a candidate committee, a PAC, a local/state party committee, or another national party committee).
 - We will also have a search function if users are interested in directly searching for individuals/groups that the committee has been involved in donations with.

- We will classify each committee into a distinct category based on its subject matter, similar to how we are classifying each piece of legislation that is being passed (see Issues section). This will further allow users to analyze donation data relating to subjects that they personally care about.
- Each committee that a candidate is on (provided that they are already elected officials) will be listed on the candidate's page and the committee page will be accessible from there.
- This data on committee donations will come from https://www.senate.gov/legislative/Public_Disclosure/contributions_download.htm.
- Our committee classification will separate all of the senate committees (<https://www.senate.gov/committees/>) into several distinct categories (e.g. economy, foreign relations, environment/public resources, public health, etc).

Possible additional features:

- An additional feature is allowing the user to select a specific time period that they are interested in seeing committee donations for.
- We could also highlight individual donations involving the chair of the committee in a certain time period (from Candidates) and compare that to the committee's overall donations.
- We could also do the same donation analysis/data visualization for Senate subcommittees.

Issues

Basic requirements:

- First, the user will be able to select from a drop-down list of categories of policy issues and the state they are from/interested in
- Using data from the the [FEC candidate summary dataset](#), [Congress's documentation on descriptions of legislation](#), [OpenSecrets donors by industry dataset](#), and [Senate voting records](#), we will display visualizations and tables outlined how senators from their state vote on the policy issues, what donations, if any, they receive from related industries.
 - This will involve sorting through the summaries of legislations and categories from the Congress.gov documentation to find keywords.
 - Then, we will cross list those with the industries associate with each donor to see how Senators vote on specific policy issues.
 - This will allow the user to make informed decisions on voting by specifically showing them information on policy issues they care about.
- It will provide information for donation amounts, and specifically identify any donations that were made in the cycle prior to the Senator's vote on a specific legislation.
- The user will be able to filter for only legislation their Senator voted affirmatively on.

Possible additional features

- Additionally, how have previous Senators voted on legislation relating to their donor, as opposed to the Senators currently in office.

- List if the Senators are members of any congressional committees/subcommittees that relate to industries they receive donations from, because it means that they are involved in deciding which legislation on that specific policy issue is being introduced.

Donations/Voting Correlations

Basic requirements:

- On the correlation page, users will be able to select whether they want to select a specific donor, issue, candidate, state, or committee. Regardless of each selection, there will be a visualization component so that if a user wants to export a graph, they can seamlessly make that in our tool. They will be able to specify the type of graph and then modify the parameters listed below.
- In order to do this, the user will first be able to select which of the four variables they would like to search on. They will also be able to navigate to a different issue from a different issue. For example, if they click on a given state, they can then click on a candidate in that state. Similarly, if they click on a candidate, they will be able to navigate to the state that candidate is from. They will then be able to filter down to specific entries within the category of their choice.
- If users select a given state, they will be able to see how much was donated to a given issue and whether or not it passed. The visualizer tool will help demonstrate how much was donated for a given issue, committee, or vote on a state level, and then demonstrate that in an appropriate visualization of a user's choosing.
- If a user selects a given issue, they will be able to see who has donated the most to a given issue across states. They will also be able to see whether a specific vote has passed or not and how much was donated across states. They will also be able to filter whether or not a donor has voted for or against an issue
- If a user selects a given donor, they will be able to see how many issues they've donated to have passed, where/who they have donated to and how much. They will also be able to filter whether or not a donor has voted for or against an issue
- If a user selects a given candidate, they will be able to see who has donated to that candidate from which issues. They will also be able to see what percentage of votes for that issue they have voted for or against.
- If a user selects a committee, they will be able to see the total amount that has been donated to that committee and how many issues of each type have been passed in that committee. They will also be able to filter whether or not a person has voted for or against an issue

Possible additional features:

- Can possibly allow users to create visual networks that link given candidates and donors together based upon donations and issues voted on together. Can color nodes based upon individual type and edges based upon relational type. Edge weights can be set to donation amounts. Could be an additional interesting way to visualize linkages between donors and candidates.

- Could potentially allow users to specify a time frame for which they would like to see the information above. Would be an additional query parameter, but would allow for more control and historical research.
- Finally, we could also add a visual animation component so that users can export GIF images that demonstrate how donations have changed based on their parameters throughout time.

Bonus: Skeletons

- Each project member will hide one skeleton somewhere on the website.