BIS 620 2022 Midterm

For your midterm, you will extend the web application we have been developing in class. It is due by the end of the day on November 5th.

- You may work alone or in teams of up to 3
- You may assume that the database we created in class is available, is named "ctrialsgov.duckdb" and can be found in "../ctrialsgovdb", relative to the app.R file.
- If needed, you may assume that the database needed by the `ctrialsgov` package is available in "../ctrialsgovdb" and is called "ctgov-derived.duckdb".
- Please do not upload your own database.

Grading criteria

- Do the features you added do what they are supposed to?
- Does the application remain responsive?
- Is the code documented?
- Are visualizations easy to understand and interpret?
- Has your code been tested?
- Is your code useful beyond the web application?
- For the features you are proposing:
  - Have you described what will do?
  - Have you described why someone might want to use the feature?
  - Is the new feature intuitive to use in the app?
  - What is the useful information being provided and how might that information be used?

Problems

1. Fix the phase histogram so that the x-axis values are uniform regardless of the query.
2. Add a new tab that gives a histogram showing the conditions that trials in a query are examining.
3. Add a drop-down so that queries can be subsetted on sponsor type
4. Each team member will propose, implement, test, design, and integrate two features. Each feature needs a motivation, description, implementation, documentation, testing, and integration into the app. You may include a separate document with motivation, description, and use of the features both directly as a function call and through the app.