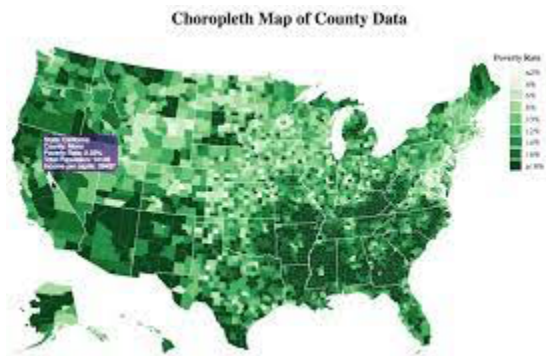
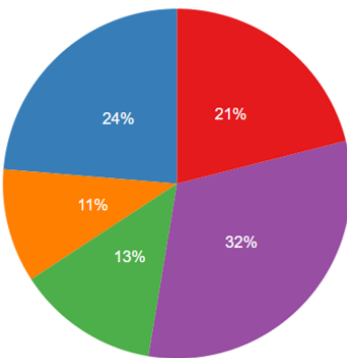


### 3 Analytics

#### Feature 4: Number of accidents per county

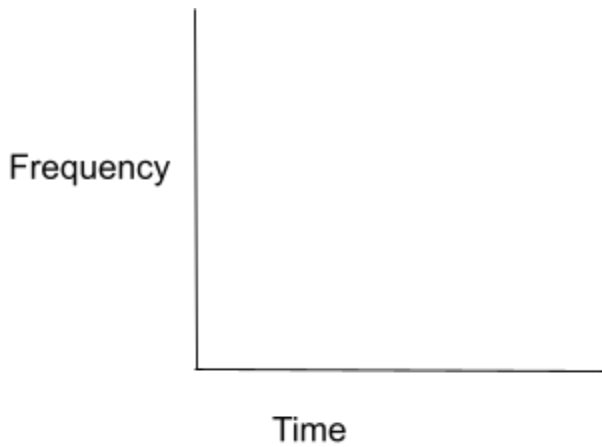


#### Feature 5: Severity Pie Chart



#### Feature 6: Given a date, show a histogram of all the accidents on that day and the time they occurred

On a specific date:



## Test Cases

**Feature 4 Test Case:** As a user I want to click on the nav-bar button that selects "County Map" to see the number of accidents per county.

- Test Case 1: As A user I want to click on the nav-bar button and have the page change
- Correct Output: The page displays the appropriate analytics
- Test Case 2: As a user I want to click on the nav-bar button that reads "County Map"
- Correct Output: The page changes to the home page
- Test Case 3: As a user I want the analytics to update when a new record is created or deleted
- Correct Output: The analytics changes to match the records in the database.

**Feature 5 Test Case:** As a user I want to click on the nav-bar button that selects "Pie Chart" and have it display the analytics on the severity of accidents.

- Test Case 1: As a user I want to click on the nav-bar button and have the page change
- Correct Output: The page displays the appropriate analytics
- Test Case 2: As a user I want to select a severity pie from pie chart  
Correct Output: The page displays deeper analytics of the selected pie
- Test Case 3: As a user I want to zoom in on a pie from pie chart  
Correct Output: The page changes to show a magnified view of pie.

**Feature 6 Test Case:** As a user I want to see a chart with the frequency of accidents for a given time.

- Test Case 1: As a user, I want to click on the nav-bar button and have the page change.

Correct output: The page displays the bar graph showing the frequency of accidents per time.

- Test Case 2: As a user, I want to hover over the bar graph and have the bar be highlighted.

Correct output: The bar is highlighted.

Test Case 3: As a user, I want to zoom in on the graph when my mouse scrolls up.

Correct output: The bar graph is zoomed in on.

## To Do for Next Sprint

Front-end:

1. Nav-bar and front end routes for new analytics pages
2. Clean up the form css
3. Feature 4 render
4. Feature 5 render
5. Feature 6 render
6. Have pop-up forms close on submit
7. Fix up CSS bar graph
8. Fix up css map
9. Fix css calendar heatmap

Back-end:

1. Load data from CSV or backup file on server start
2. Backup data on server close
3. A function that returns the number of accidents per severity.
4. A function that returns accidents per county.
5. A function that returns the start time of accidents for a specific date.
6. Parse the whole CSV file with all the accidents

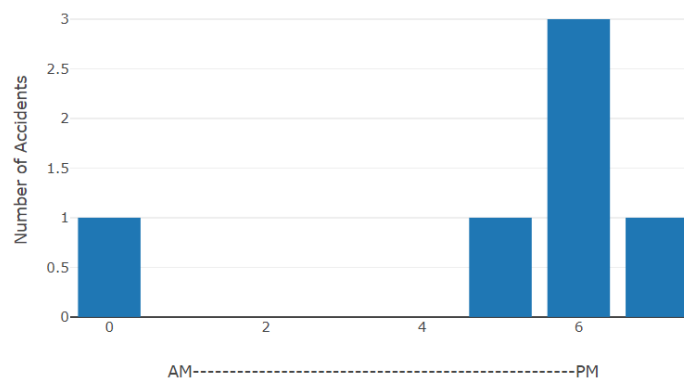
## Done List of Last Sprint

Demo: (Estela Ramirez)

Front-end:

- Nav-bar and front end routes for different analytics pages -(Ivan)
- Clean up the nav bar css / make the navbar look nicer (Ivan)
- Feature 1 Bar Graph (Yiu Ming Wong)
- Feature 2 States Map Graph (Estela Ramirez)
- Feature 3 Calendar Graph (Revised from a histogram) - (Ivan)
- A prototype for feature 6 of Sprint 5 - (Jacob)

Examine



Back-end:

- A function that returns the number of accidents per state. (Yiu Ming Wong)
- A function that returns the number of accidents per city (Yiu Ming Wong)
- Create Routes for accident\_per\_state & accident\_per\_city for front-end (Yiu Ming Wong)
- Parse the whole CSV file with all the accidents (Thuan Vu)
- Function to create indexes from data. (Thuan Vu)
- Inserting and deleting data from the index and in-memory data(Thuan Vu)

- A function that returns the total number of accidents per day (Ivan)