

## Features to implement in next Sprint:

- **Data entries**
  - **Feature 1:** Update existing data entries
  - **Feature 2:** Insert new data entries
  - **Feature 3:** Remove existing data entries
- **Home Page UI**
  - **Feature 1:** Display accidents overview
  - **Feature 2:** Display GeoCharts(colored States based on number of accidents)

## GUI Mockup:

The GUI mockup is set against a black background and contains three main sections for accident management, each with a form and associated buttons and messages.

**Add a new accident:**

ID:	Start Time:	End Time:	
Start Latitude:	End Latitude:		
Start Longitude:	End Longitude:		
City:	County:	State:	Zipcode:

ADD

**Update an existing accident:**

ID:	Start Time:	End Time:	
Start Latitude:	End Latitude:		
Start Longitude:	End Longitude:		
City:	County:	State:	Zipcode:

UPDATE

**Delete an accident:**

ID:
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DELETE

**Messages:**

- ADD:**
  - Success: If successfully added: Accident added!
  - Error: If accident ID is a duplicate: Error, an accident with that ID already exists!
- UPDATE:**
  - Success: If successfully updated: Accident updated!
  - Error: If accident ID doesn't exist: Error, an accident with that ID doesn't exist!
- DELETE:**
  - Success: If successfully deleted: Accident deleted!
  - Error: If accident ID doesn't exist: Error, an accident with that ID doesn't exist!

**Global Message:** All fields need to be filled in order for an entry to be added, updated, or deleted.

## Test cases:

- **Feature 1 Test Cases (Update):**
  - **Test Case 1:** Input the required info for an existing accident .  
Correct Output: The existing accident that matches the inputted ID is updated.
  - **Test Case 2:** Info for a non-existent accident is entered.  
Correct Output: Prints out error message that an accident with that ID doesn't exist.
  - **Test Case 3:** Only some of the required info to update an accident is submitted.  
Correct Output: Prints out error message that all fields need to be filled.
  - **Test Case 4:** One or more input fields is filled with a value that isn't the correct format (i.e., instead of Start Time input being MM/DD/YY, Start Time input is DD/MM/YY)

Correct Output: Prints out error message that the specific field(s) with incorrect input format need to be entered in a specific format. An example format is shown in the error message.

- **Feature 2 Test Cases (Insert):**

- **Test Case 1:** Input new info for an accident.

Correct Output: New accident is added with inputted info.

- **Test Case 2:** Input duplicate info of an existing accident.

Correct Output: Prints out error message that an accident with that ID already exists.

- **Test Case 3:** Only some of the required info to insert an accident is submitted.

Correct Output: Prints out error message that all fields need to be filled.

- **Test Case 4:** One or more input fields is filled with a value that isn't the correct format (i.e., instead of Start Time input being MM/DD/YY, Start Time input is DD/MM/YY)

Correct Output: Prints out error message that the specific field(s) with incorrect input format need to be entered in a specific format. An example format is shown in the error message.

- **Feature 3 Test Cases (Remove):**

- **Test Case 1:** Input accident ID to delete.

Correct Output: The accident is removed from the database, message telling user entry was successfully removed.

- **Test Case 2:** Input accident ID for a non-existent accident to be deleted.

Correct Output: Error message indicating that accident does not exist.

- **Test Case 3:** Only some of the required info to remove an accident is submitted.

Correct Output: Prints out error message that all fields need to be filled.

- **Feature 4 Test Cases (Backup):**

- **Test Case 1:** User clicks backup button.

Correct Output: All the prior user actions of adding, updating, or deleting accidents will be reflected in the .csv file, saving said actions to the file so that they persist even if the program is closed.

## TODO LIST

Done list of last sprint

- Search bar that search operations for multiple fields of data
  - [Finished by Gellert, Luke]
- Display Google Maps with requesting Google Map API on webpage
  - [Finished by Gellert, Jacob]

## Upcoming Sprint:

- Update the exist features
- Insert new features
- Delete unnecessary features
- Data backup

- Data import
- Geochart
- Heatmaps

