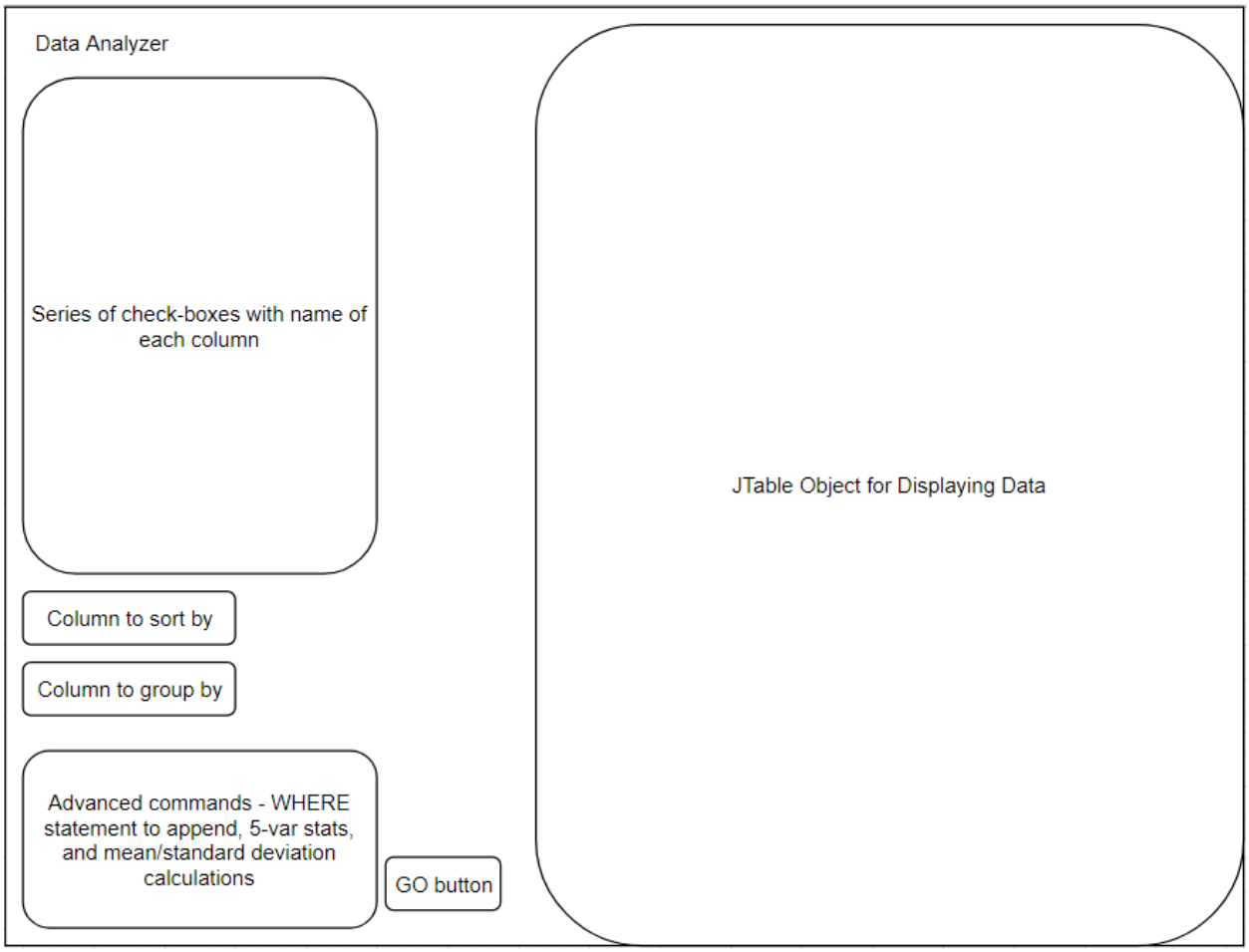
Anthony Vigil

Criterion B: Design

Inputs and Outputs

- Filepath for importing data
- Clicking buttons/checking boxes for data
- Output of organized data

UI Wireframe



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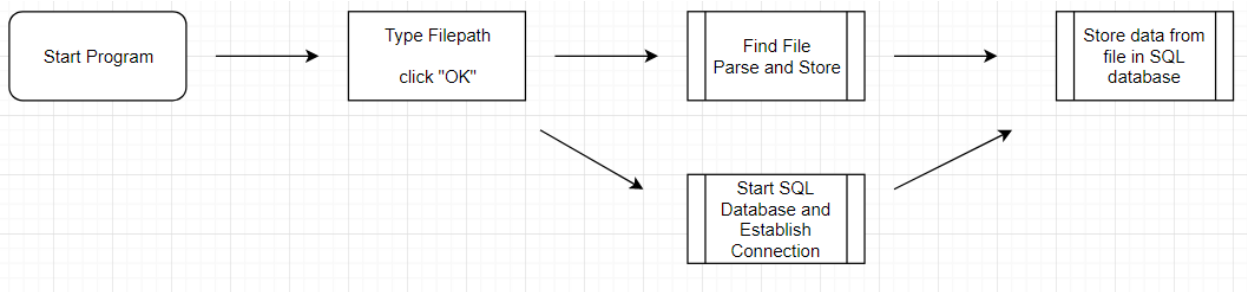
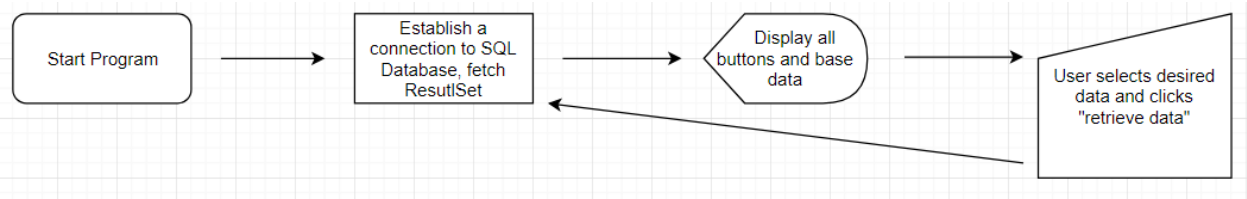
System Flowcharts

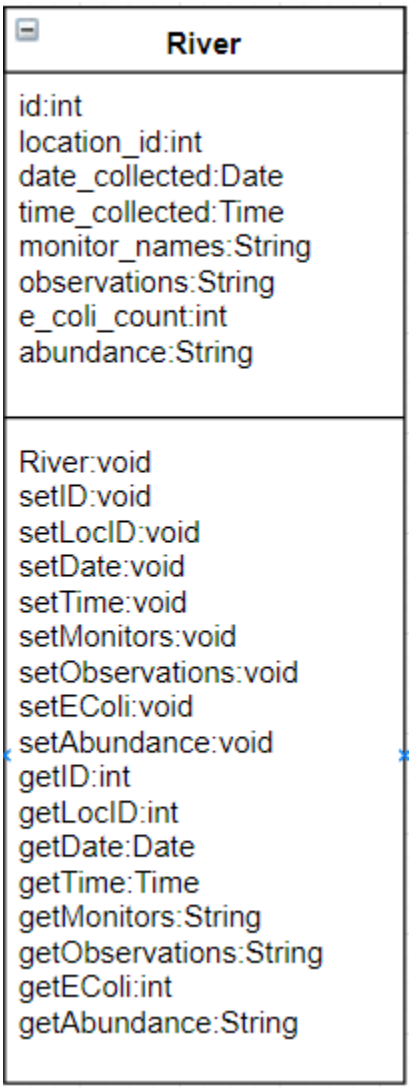
DataImporter

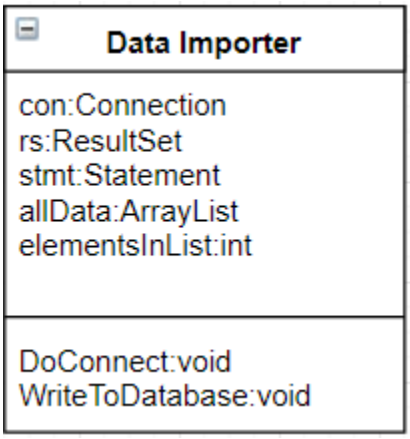


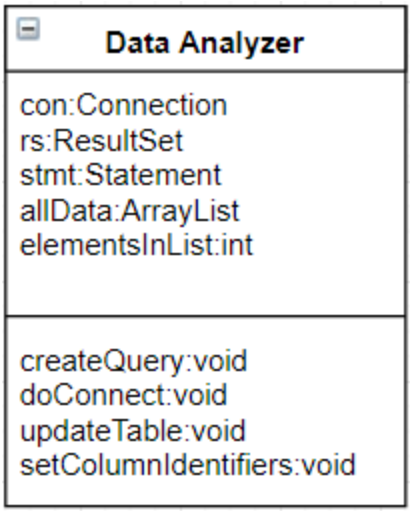
DataAnalyzer



UML Diagrams







Pseudocode for a Key Algorithm

```
public void mean (ArrayList<Integer> dataToAnalyze) {
        double mean;
        int total = 0;
        for loop through dataToAnalyze {
           add each element to total
        }
        mean = total divided by size of arrayList
        double totalStDev = 0;
        for loop through dataToAnalyze
           add the absolute value of each element divided by the mean
        }
        Divide the totalStDev by size of ArrayList
        Convert to String using decimalFormat
        Show a message to the user with the mean and standard deviation
}
```

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Test Plan

- Add 2,000 duplicate entries and check for errors in importing
- Attempt to add a malicious WHERE command to the end of a statement
- Try all possible outcomes of checkboxes