Background - The class

- CPSC 310 is a project-heavy course, and a requirement of the Computer Science Major
- Roughly 180 or 360 students per term working in pairs, meaning we have 90 to 180 teams
Background - The project

- Students are tasked to build a simple data storage and query language system
- Students are marked by their project's ability to pass a suite of automated tests
Background - The data

- We have records of test results for all the students commits (100MB for one term)

- We also have their git repositories, which means entire project histories (separately on GitHub)

- One major challenge was be pre-processing this data
Target use cases

- Enable course staff/TAs to get an overview of how the class is doing
- Identify exceptional or struggling teams
- Find correlations between project qualities and performance
- Provide an overview of how an individual team is doing to guide TA help
- (Stretch) Learn more about the test suite used in the course to identify improvements
Class Overview

Figure for D1 shows correlation between LOC vs Fail Count

Test, coverage and overall score summaries

Top 15 Failed Tests For D1

InsightVis
Global Stats

Test, coverage and overall score summaries

Coverage

Test

Overall

0 20 40 60 80 100

Overall
Test
Coverage
Most failed tests

Top 15 Failed Tests For D1

- Firefly
- Starwars
- Jade
- Firestorm
- Fester
- Firetruck
- Void
- Aqua
- Elixir
- Deepmind
- Indigo
- Mango
- Retrograde
- Camelot
- Galactica
Scatterplot

Figure for D1 shows correlation between Loc Vs Fail Count