

Road Accidents in Canterbury

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Chen

Inspiration

- There is no single go to data source for the public to go to if they wish to research information about crashes in New Zealand
- A single dataset would be useful to the general public and interested data scientists that would like to understand different factors in crashes in Canterbury
- Factors such as Weather, location, number of and types of vehicles involved and injuries are some of the factors that we are most interested in
- Our goal is to create a Data model that is easy to read extrapolate information from

Collecting the data

- Dataset from the data.govt.nz catalogue
- Crash analysis system data (CAS)
 - Recorded by police - Traffic Crash Report (TCR)
 - 801,911 records - 80,155 in Canterbury
 - Data from the year 2000 to the most recent month passed
 - 80x801,911 table
- Motor vehicle crash statistics (2001 - 2016)
 - A range of statistics on motor vehicle crashes in New Zealand

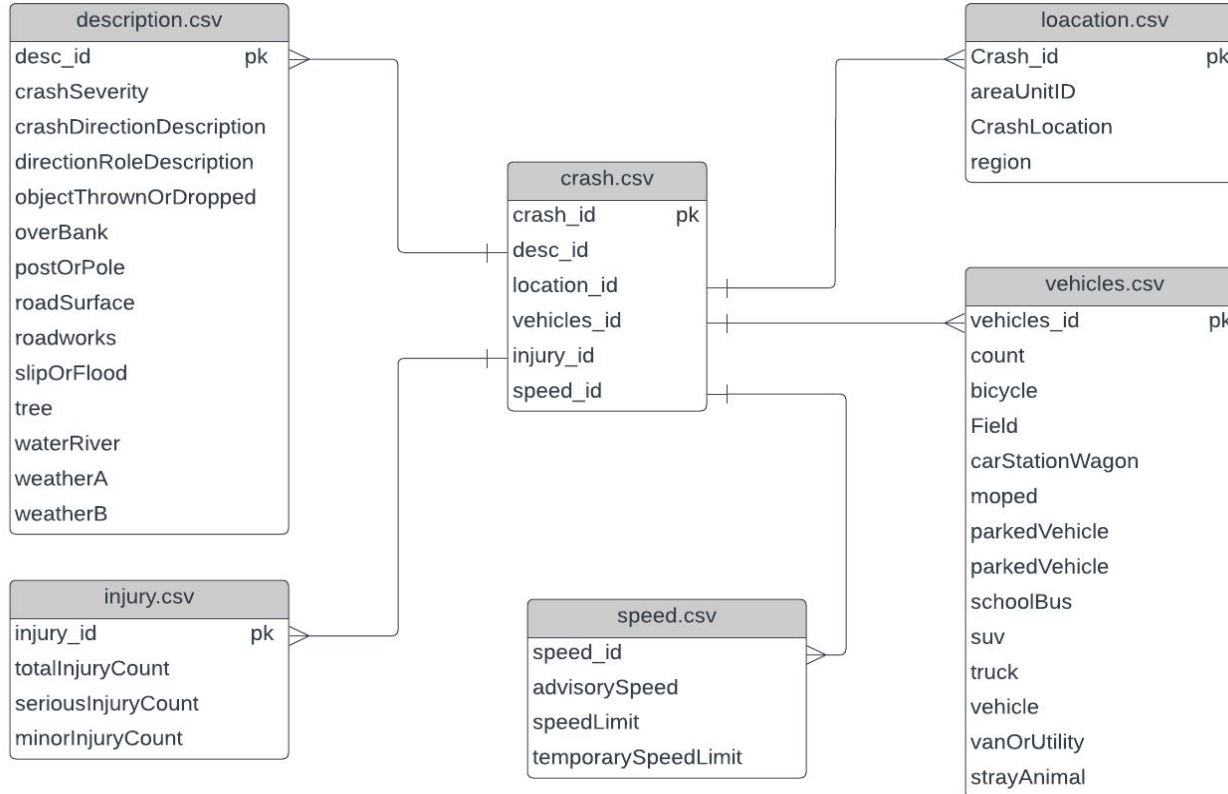
<https://catalogue.data.govt.nz/dataset/crash-analysis-system-cas-data3>

<https://catalogue.data.govt.nz/dataset/motor-vehicle-crash-statistics/resource/4b1123d9-0050-40cd-945a-ebb4fa6c455e>

Problems with the data set

- Small 'fender benders' usually aren't reported
 - More serious crashes always reported
 - This could mean that there is a higher percentage of serious crashes than in reality
- Some TCRS wait a long time for review
 - Currently 2072 TCRS awaiting review (Aug 2022) some as old as 2016
 - At least 3 of those are fatal

The Data model





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master

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Code

About



Cameron Pearce edited graphs and added to project diary, r...



1 hour ago

45



.gitignore

added injury.csv

yesterday



README.md

Graphs

3 hours ago



crashDataModel.rds

edited graphs and added to project diary, rer...

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crash_data.ipynb

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create_data_model.i...

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create_description.ip...

small changes to tables

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create_injury.ipynb

small changes to tables

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create_location.ipynb

added region to location table

yesterday



create_speed.ipynb

added code to create speed.csv

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create_vehicles.ipynb

added code to create innjury.csv

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data201realtion.pdf

changed relation to add speed table

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