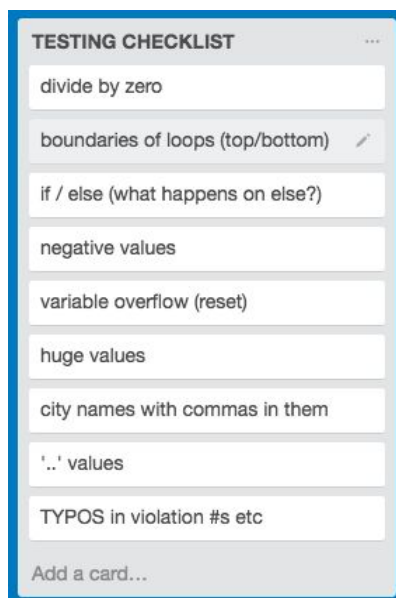# TESTING DOCUMENT

Crime Cruiser

Team London

TEST FILES

- We created and used individual testing files which were considerably smaller than the real file from Stats Canada.
- We did this to test our parser and our functions for different question types.
- Here are some of the things we tested using our test files:
    - French Accents
    - Negative values/zero values
    - Correct (Highest/Lowest) and (Top/Bottom) rates and percent values
    - '..' values

TESTING CHECKLIST

- We had an ongoing testing checklist on Trello to remind ourselves to test for certain things. Below is a screenshot of our checklist:

TESTING CHECKLIST

- divide by zero
- boundaries of loops (top/bottom)
- if / else (what happens on else?)
- negative values
- variable overflow (reset)
- huge values
- city names with commas in them
- '..' values
- TYPOS in violation #s etc

Add a card…

INTERFACE

- We expect that the user will enter an incorrect value at some point and have accounted for it. If the user enters anything incorrect, Crime Cruiser asks the question again.
- This includes:
  - Incorrect violation/location/question type numbers
  - Years that are not between 1998 and 2015
  - End years that precede start years
- The interface prints out the user's question once they have filled out all the fields to ensure that they are really asking what they meant.

FORMATTING

- Check for any misspelled words/variable names/function names in the code
- Comments are included in important places in the program & are appropriate
  - More comments in parsing/question functions, which are more complicated functions than the interface/output

PROGRAM REVIEW

- We got a peer to use our system to test it from an outside perspective
- This gave us input on:
  - Clarity of interface
  - Knowledge that program works on multiple computers
  - User is questioned on what aspects of the program they enjoyed, or which aspects they would like changed

FINAL TESTING & ISSUES

- We thoroughly tested each question and picked test cases to show in our demo.
- One issue we encountered is in Question 4. If the percent change equals zero, the program does not return a coordinate so it prints the percent change but not the location name, and the number on the left is skewed. We encountered this issue too late (as it is a rare case) and are unsure how to fix it.