

User Manual

Crime Cruiser

Team London

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>> Introduction

Crime Cruiser is a perl program that analyzes crime data from Statistics Canada to answer many questions. The questions focus on finding the locations with the highest or lowest rates/percent changes of different violations in the years between 1998 and 2015.

See below for detailed instructions, and see the bottom for a condensed version!

>> Starting the Program

To start the program, the user should launch the terminal and navigate to these folders:

>> Desktop

>> crime_cruiser

From the crime_cruiser folder, the user can run the program by typing

>> perl crime_cruiser.pl

>> Loading

Upon running the program, a loading interface is displayed. This gives the user an estimate of how long the entire file will take to parse before they can start using *Crime Cruiser*.

The timer counts down from 25 seconds.

When the entire file has been parsed, the program displays a “Loading Complete” message.

>> User Interface

The *Crime Cruiser* interface is controlled by the entry of numbers. The user interacts with *Crime Cruiser* by entering numbers to determine which question to select, and which options should be chosen corresponding to each individual question.

Once loading is complete, *Crime Cruiser* provides basic instructions on how to use the program effectively. It instructs the user to use the keypad system, and indicates that pressing the key 9 (from the main menu) will terminate the program instantly.

The user should only exit the program once they are done using it! Otherwise they will have to wait 25 seconds for the file to load again.

>> Question Types

Question Type Choices

Crime Cruiser can answer 5 different types of questions, which are detailed below. When the user selects one of 5 question types from the main menu, they will be prompted to complete a fill in the blank style statement.

Question Set 1

What *province/city* had the *highest/lowest* rate per 100,000 Population of a *violation* in a *year*?

- First, the user will be prompted to type **1** or **2**
 - 1 to answer the question for a province, or 2 the answer it for a city in Canada.
- Next the user will be prompted to type 1 to find the highest rate, or 2 for the lowest.
- A table of 16 violation numbers will appear

```
~~~~~ VIOLATION NUMBERS ~~~~~
```

Total violent Criminal Code violations	4
Murder, First Degree	6
Manslaughter	8
Sexual Assault, Level 1	16
Total sexual violations against children	17
Assault, Level 1	29
Total firearms, use of, discharge, pointing	30
Total Robbery	34
Total Abduction	38
Shoplifting \$5,000 or under	79
Arson	84
Total Prostitution	99
Trespass at night	120
Total Impaired Driving	149
Total Drug Violations	231
Total Criminal Code traffic violations	148

- The user will be prompted to enter a violation number of their choice.
- Finally, the user will be prompted to enter which year (from 1998-2015) they would like to analyze the crime data for.
- Once all 4 fields are complete, the program will print out the user's full question.
- It will compute the highest or lowest rate per 100,000 population for the given specifications, and print it out the result in a sentence format.

Question Set 2

What *province/city* had the *highest/lowest* percent change of a *violation* between 2 *years*?

- The user will once again be prompted to enter the location, highest/lowest and violation fields.
- For this question, the user will be prompted to enter 2 years: a start year and an end year. The start year must precede the end year, and both years must be between 1998 and 2015.
- Once all 5 fields are complete, the program will print out the user's full question.
- It will compute the highest or lowest percent change in rate for the given specifications, and print it out the result in a sentence format.

Question Set 3

What *provinces/cities* had the *top/bottom n* rate per 100,000 population of a *violation* in a *year*?

- Once again the user should choose 1 for province or 2 for city.
- The user should enter 1 for the top locations with the highest rates, or 2 for the bottom locations with the lowest rates.
- *n* represents the number of locations the user wishes find the top/bottom values for. If they are searching for cities, this value must be between 1 and 34. If they are searching through provinces, it must be between 1 and 13.
- The user is then asked to enter a violation number of their choice and to choose a year
- Once all 5 fields are complete, the program will print out the user's full question.
- It will compute the top/bottom *n* rates per 100,000 population for the given specifications and print it out the result in a sentence format.


Question Set 4

What *provinces/cities* had the *top/bottom n* percent changes in the rate a *violation* between 2 *years*?

- The user will be prompted to fill out the same fields as question 3:
 - Location, top/bottom, *n* and a violation number
- They will be asked to enter 2 years, as in Question Type 2.
- Once all 6 fields are complete, the program will print out the user's full question.
- It will compute the top/bottom *n* percent changes per 100,000 population for the given specifications and print it out the result in a sentence format.

Question Set 5

Construct a line graph for the change of a *violation* in a *specific location* between 2 *years*.

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- First, the user must indicate if they would like to produce a graph for a province or a city.
 - Then a list will be displayed of the names and location numbers of each province or city, depending on their choice.
 - The user is prompted to enter a specific location number as listed.
 - The user is then prompted to enter a start year and an end year to produce the rates between these years.
 - Once all 5 fields are complete, *Crime Cruiser* will create a text file and a line graph for the given specifications.
 - The program will output the name of the pdf file to the user. The user can go to the `crime_cruiser` folder to find and view the files.

>> Ending the Program

End: In order to end the program from the menu system, enter 9.

>> TL;DR

Condensed: Use the number keys as indicated to fill out each of the 5 question types. They will either produce your answer in sentence format or give you the name of a pdf file containing your line graph (question 5).

Conclusion

We hope you have enjoyed using *Crime Cruiser* and have found it useful!

If you have any questions, please email one of the creators and we will be happy to assist you!

