

Testing Document - Team Barrie

To ensure that the program runs well and that there are no problems, Team Barrie aggressively and frequently tested our code. The parser is an essential part of our program and therefore we tested it heavily. To test our parser, we frequently ran it and tested it in our code that is newly integrated or added. For our interface, which is input from the user, we tested many different types of inputs to ensure it would not break the program; we were successful in all the cases and were able to capture the input and exclude the other inputs. For output testing, we tried out code and functions and compared the data file (csv) and the output given by the program; ensuring that the output makes sense and corresponds with the data file.

Parser Testing: Made sure to include text prompts throughout the parser to see if the parser is working or not.

Input Testing: Tested multiple inputs outside of suggested fields; to check if the program would break or not.

Output Testing: Selected random years and locations for each question answered and tested them at every point through the time the software was being developed. This would help making sure that every aspect of the program's output was noted and no surprises would occur when having a user use the software.

Test cases for location related questions:

- Tested for a low value for the year; ensuring the lower values worked. Example: 1998, 1999 and ensured output was accurate and correct.
- Tested for a mid value for the year; ensuring it worked. Example: 2000,2001. And ensured it was correct
- Tested for a higher value for the year; ensured it worked. Example: 2014,2015 and ensured output was accurate.

Test cases for crime related questions:

- Top 10 common crime in <location> in <year>
 - Tested for Canada, Newfoundland and Labrador, British Columbia and Nunavut.
 - Tested for 1998, 2005, 2013 for year for each of the provinces
- Top 10 least common crime in <location> in <year>
 - Tested for Canada, Prince Edward Island, Ontario, Alberta
 - Tested for 1999, 2004, 2014 for year for each of the provinces

- Top 10 common crime committed by youth in <location> in <year>
 - Tested for Canada, New Brunswick, Manitoba, Northwest Territories
 - Tested for 2000, 2006, 2013 for year for each of the provinces

Test cases for value related questions:

- Murder capital of Canada in <year>?
 - Tested for 2002, 2006, 2015 for years
- Safest place in Canada in <year>?
 - Tested for 1999, 2004, 2014 for years
- What province has shown the greatest increase in crime from <year>?
 - Tested for 2001, 2007, 2013 for years