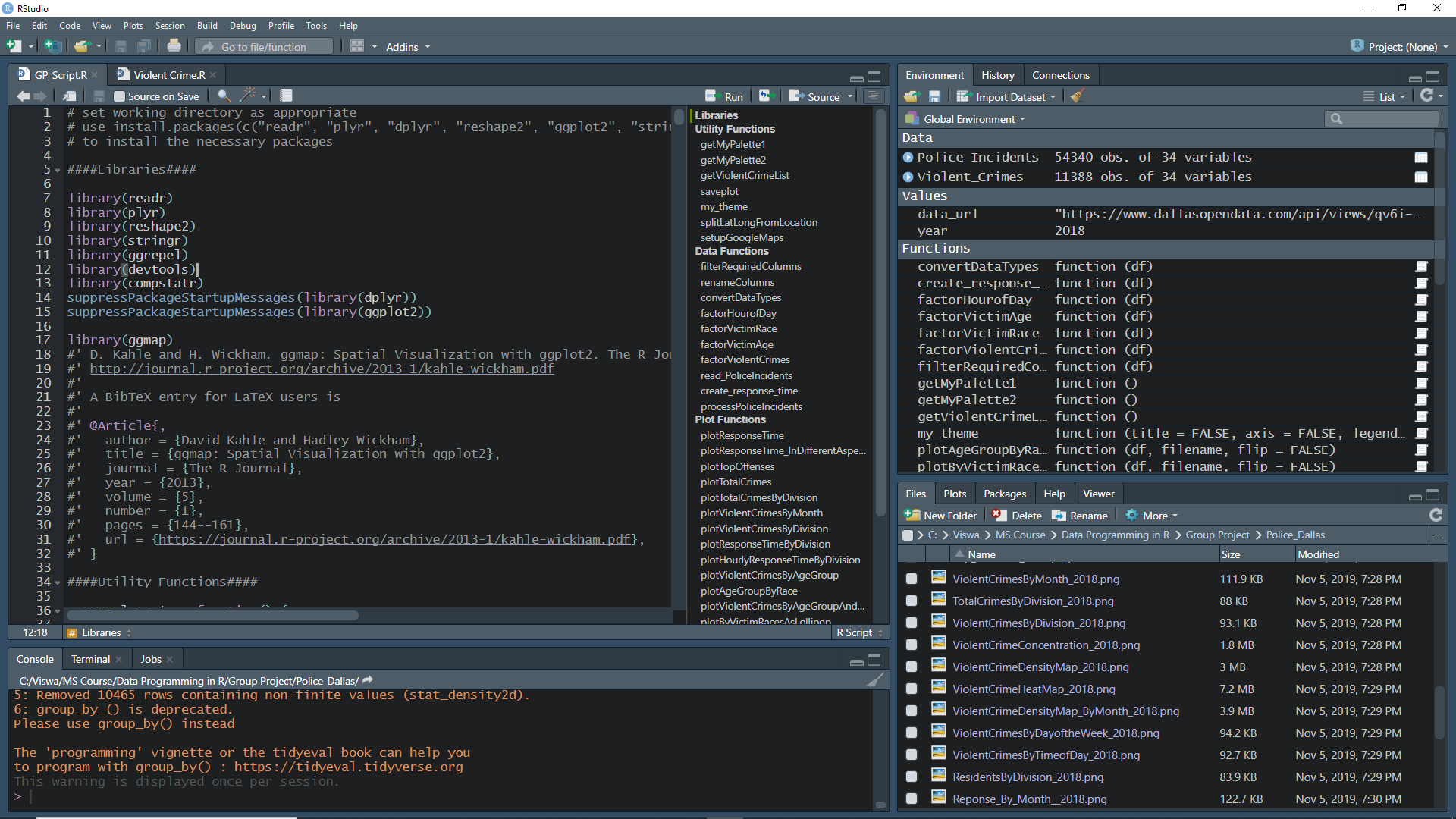
**Readme**

* The data used for analysis is hosted at <https://www.dallasopendata.com/api/views/qv6i-rri7/rows.csv>.
* As it would take longer to download the data which had a size of 566 MB, we worked with a filtered dataset that contained only the year 2018. This ZIP package contained the data file ***Police\_Incidents\_2018.csv*** that was used to generate the charts.
* The original data file, that was downloaded from the above URL, contains all the years. It was renamed to ***Police\_Incidents.csv*** and included as well as part of the package. In case ***Police\_Incidents\_2018.csv*** is not present in the working directory, but contains the original file ***Police\_Incidents.csv***, the script intelligently detects it and uses it to filter it to the year 2018 to proceed further.
* Even if no data is present in the working directory, the script can download the data from the URL provided and filter it to the year 2018 to carry out the analysis. It also writes the filtered data into a csv file for later use.
* The script cleans the data and creates a data frame named “*Police\_Incidents*” containing **54,340** rows and **34 columns** to start the analysis.
* The script is grouped into several sections (Libraries, Utility Functions, Data Functions, Plot Functions) containing various functions and a Main section.
* Please use "Code->Show Document Outline" menu to view the sections and functions under them for easy navigation.



* The Main section is the entry point for the script. When sourced, with the proper API Key for Google Maps and a Year is supplied, the script analyzes the data and generates various charts.
* The API Key is needed for plotting charts that use Google Maps and it should be provided as an argument to the function setupGoogleMaps() in the line 765. The API Key must be provided to generate Google Maps. If an API Key is not provided, the function will provide an error.
* The script is designed to work with any year. If the Year supplied is 2018, it uses the filtered data file present in the working directory for analysis, and if a different year is supplied then it uses the original file present to filter the data and use it for analysis and generates the charts for that year.
* The script generates around **26 charts** which are included in our presentation.

Note:

* In case if the attached file Police\_Incidents\_2018.csv is not used to generate charts, and instead if it is downloaded from the URL, the charts may look different as the current version of download has little more data included as oppose to what we have started with.
* There may be a warning due to the usage of a deprecated function group\_by\_().
* The charts will not include a title in order to use it in our presentation.