Visual Explorer

A Flexible Interface for Visualisation Analysis and Design

Abstract

ShinyDE is an open source R package providing a graphical user interface to interactive data exploration and visualisation. It incorporates and expands on the open source implementation of the grammar of graphics for R, ggplot2.

Ggplot2 offers a wide array of marks and channels that constitute the building blocks for developing visual encodings, as well as a large selection of built-in visual idioms. However, users unfamiliar with the package may not have visibility of the options available to them, or find it challenging to express their envisioned design in their desired visual idiom.

ShinyDE is designed to handle a spectrum of data visualisation needs ranging from visualising the raw values of individual variables through to fully aggregated, pivot-table style visualisations. Intermediate points on the spectrum are expressed in both the data dimension (through semi-auto statistical aggregation) as well as the implementation of two approaches to handle visual complexity – faceting into multiple views, and reduction of items and attributes.