Abstract

Data visualization is incredibly important in order to make informed decisions about the relationships between different data in a dataset. When datasets are stored in relational databases, they can become complex and it is necessary to build tools that can condense the vast number of possible relationships to a few that are of interest. Navigating a dataset is one challenge; SQL queries are necessary to access the data and can be confusing to those with a non-technical background. Once data is acquired, it should be simple to visually test the relationships between data. This is the common workflow of an ELQA (EElectrical Quality Assurance) engineer at CERN, and a tool is described here that shortens this process based on the experience of the engineers. The currently available software libraries for data access, analysis and visualization were used to create such a tool. The focus of this paper is on data visualization and the libraries that can be used to provide an interactive, web-based solution for multiple members of a data collection team.

References


- Matplotlib.org. &quot;screenshots matplotlib 1.4.2 documentation&quot;.
  &quot;http://matplotlib.org/users/screenshots.html#slider-demo&quot;.
- Matplotlib.org. &quot;how-to matplotlib 1.4.2 documentation&quot;.
  &quot;http://matplotlib.org/faq/howto_faq.html#matplotlib-with-django&quot;.

Index Terms

Computer Science Information Sciences

Keywords

Python Bokeh MplD3 Django Oracle