Big data visualization conveys information much faster than tables containing numbers and text. Therefore, this poster presents an efficient method for big data visualization on top of Google BigQuery. Google BigQuery is a cloud-based interactive query service for massive datasets built on Dremel. In this project, we used 'natality' dataset that has United States birth data from 1969 to 2008 saved in 137 million rows. For the implementation of dashboard application, we employ Google App Engine using Python and Google Charts with JavaScript.

Visualization enables analyzing massive amounts of data in seconds compared to tables. Therefore, we built a dashboard using Python version of Google App Engine to present big data on a map. Creating user credentials was done via OAuth2 to wrap functions that require authentication with decorators. Queries were written in SQL-like syntax to select data from Google BigQuery NoSQL database. Finally, the United States map was made using Google Charts JavaScript classes.

The most important direction for future work would be the implementation of additional drag and drop features to enable aggregating data, which in turn simplifies calculating new data items and breaking data by certain factors for better and easier analysis.

References