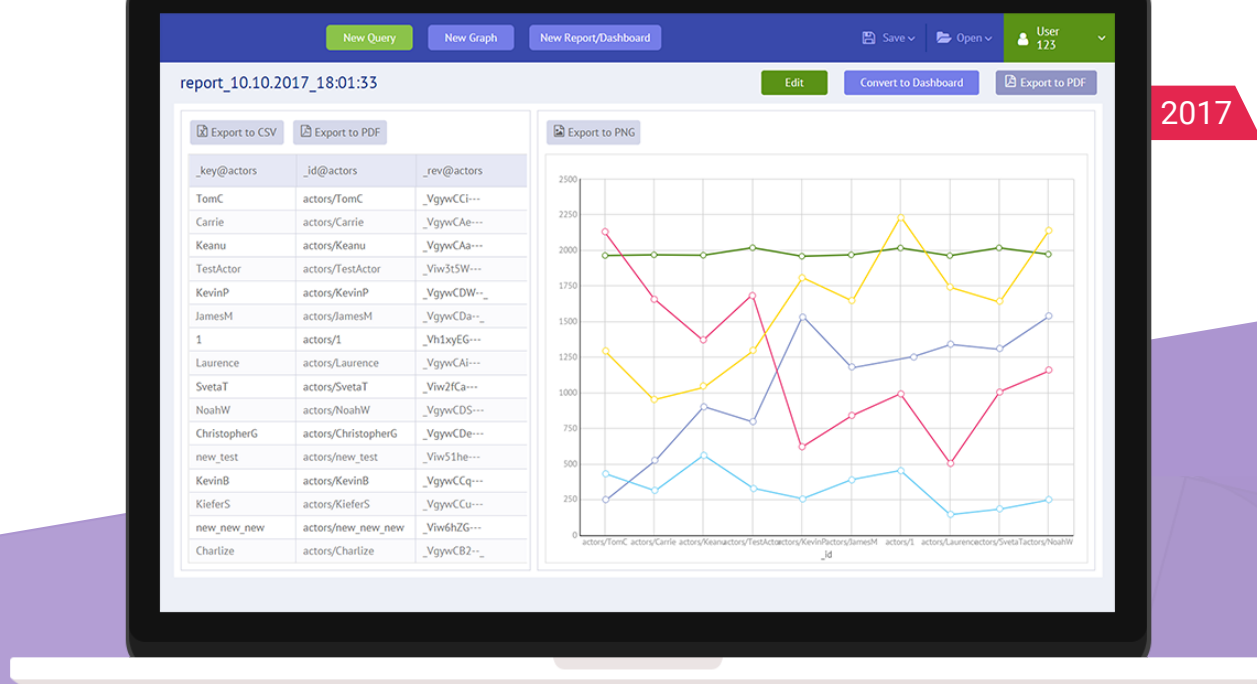


High-Performance Data Analytics Tool for Improved Management

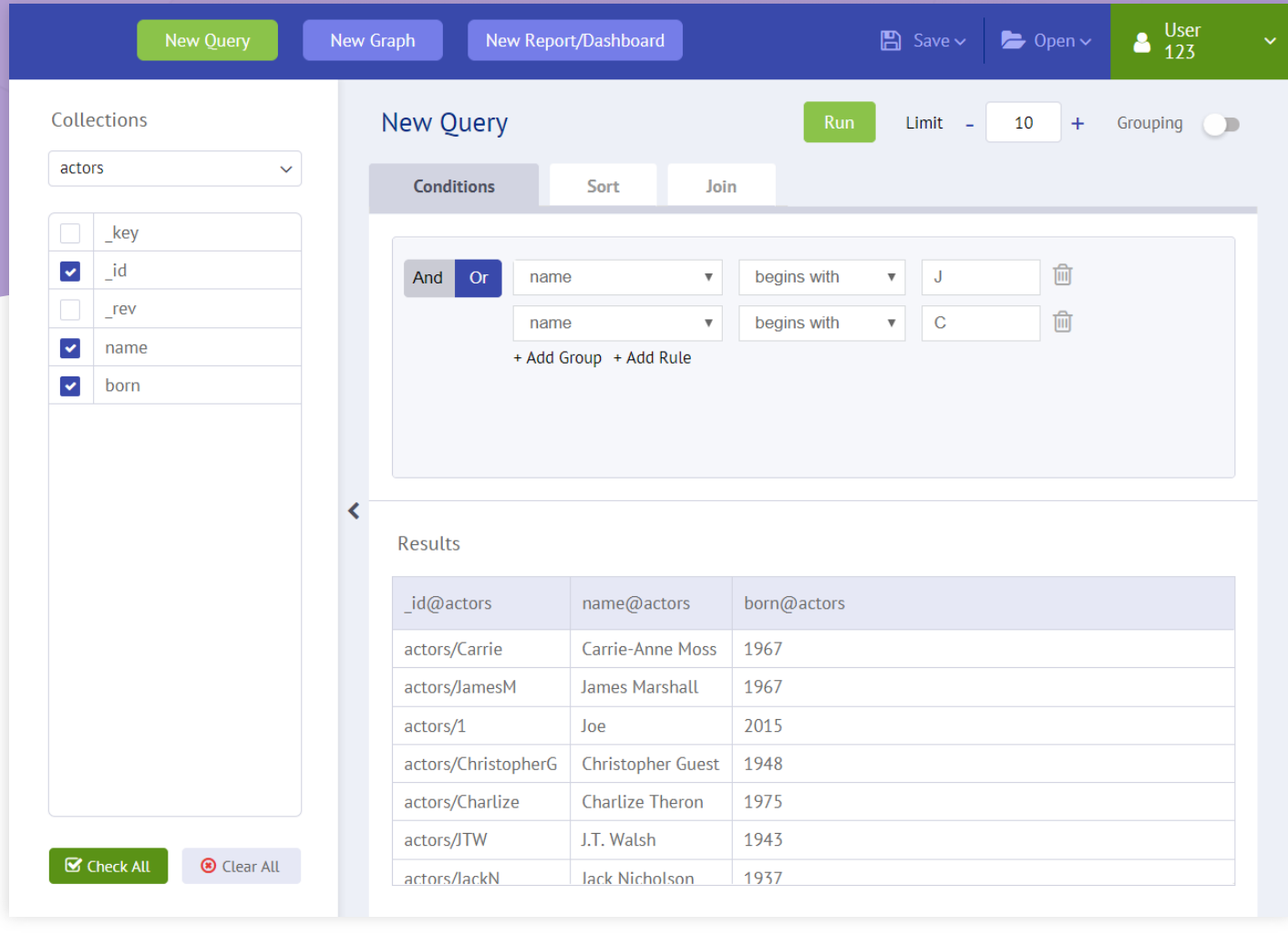
A big data analytics tool allows building queries to the graph database in a convenient and understandable UI, and these queries can be saved for later usage. On their basis, reports containing charts and tables presenting the data from queries can be built. It allows users to create charts and tables based on the data that is returned by queries, and create dashboards which visualize this data.



Business Challenge

Nowadays every company starts to identify significant business opportunities and goals that can be achieved by superior data analytics and visualization. Businesses strive to analyze big data from different sources to gain profits from the development and production of new product and service offerings, improve internal processes, such as risk management, customer relationships, etc.

Our client required to develop a comprehensive, robust and user-friendly analytics tool for big data that allows users to get an access to trustful analytical information, build queries to the graph database and save them. The main feature of the data analysis system is reports (dashboards) and graphs that are created using data from the database. The system should allow users to create customized searches for objects in both local and remote databases.



Solution

Our custom software development team was challenged to design a user-friendly and high-performance platform featured by enhanced usability characteristics, improved data searching, and visualization. The customer required to develop data management services with the ability to manage big data on the fly and make graphs and charts using data visualization feature. The tool should allow internal users of the company to create reports that could be visualized in web-based dashboards. The app isn't accessible through the internet, only through the internal network of the company. Users can use the data analytics tool from any device, whether desktops, laptops, or tablets.

To meet the client's requirements for the system UI and data view, XB Software development team used the rich and interactive Webix widgets. The front end of the business data analytics tool was totally implemented using Webix. Webix customization allowed tailoring the app to the specific company needs and dynamic business environments.

The Webix widgets, such as DataTable, Template were used to create report builder feature that allowed users to generate reports (tables and charts) which suit the conditions a user has set.

The Webix Charts were used to visualize analytics data. The Graph analytics module allows visualizing relations between the objects in the database. To draw a graph a user also needs to set value of vertices and edges.

The Query builder module allows internal users to build queries to the database using the UI elements (buttons, dropdowns, etc). After selecting a database, a user can select the required collections of graphs which are stored in it and run a query. The Windows and Popups widgets should help users to emphasize important information.

In the dashboard builder, a user is able to create a dashboard which is a blank area on which various elements can be added. Users can set up the number of rows and columns of the dashboard.

The backend of the tool was developed using Node.js. It allowed balancing the load across the servers and getting flawless operation of the system.

We used ArangoDB as an easy-in-use, high-performance specialized database for documents and graphs that allows getting the correct data in one query.

Applied Technologies

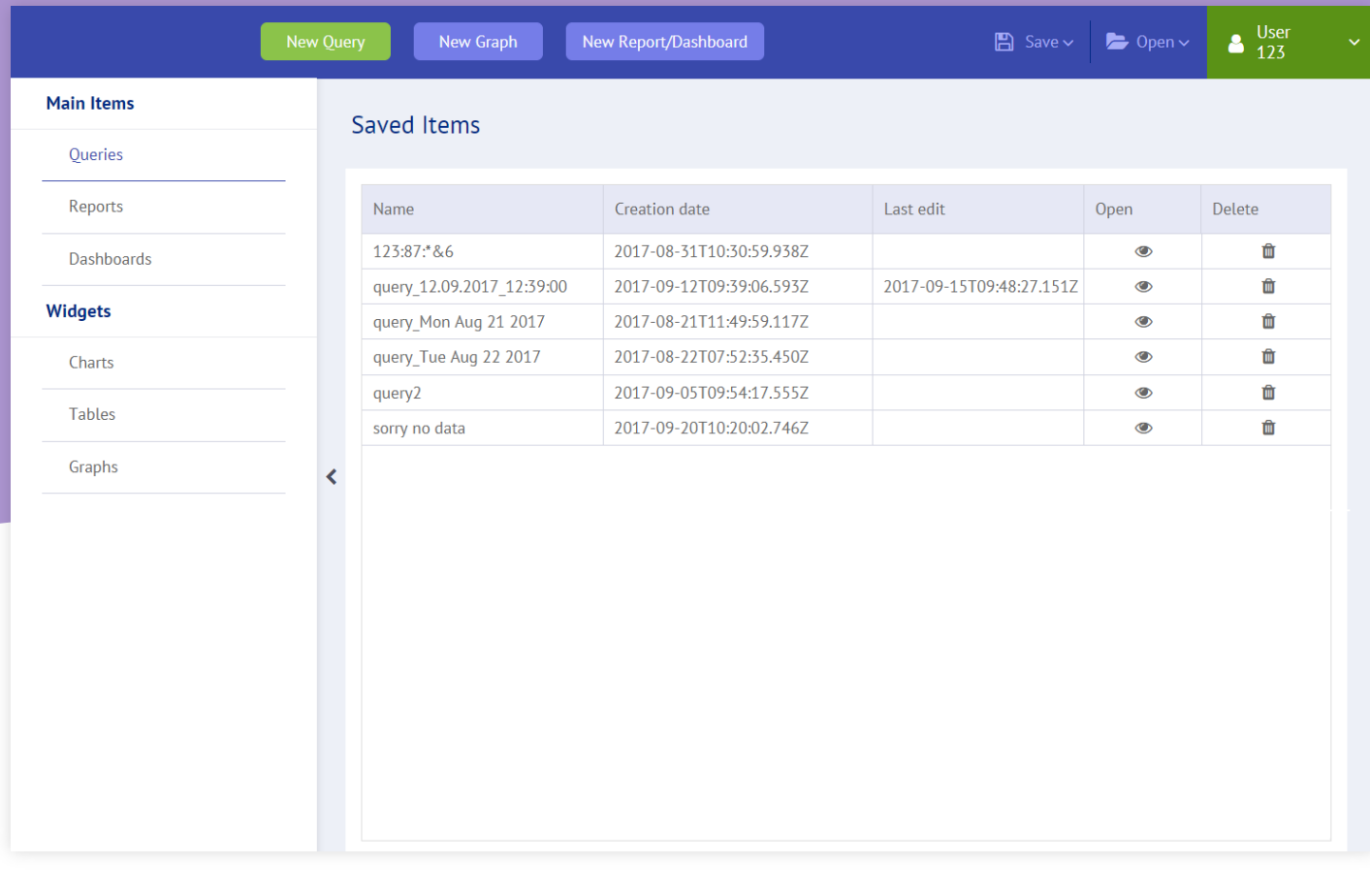


Duration

4.5 month

Estimated man-hours

2 300+



Result

XB Software developers created a user-friendly and effective analytics tools for big data that allows users to build queries to the graph database in a convenient and understandable UI, save and share graphs and diagrams. It allows creating informative and comprehensive reports and tasks. The app is intended to be used by commercial users to work with the data collected from different sources and to present this data in the convenient way by extracting the needed information and building reports and dashboards with it.

Customer

Software development company from West Africa that is focused on the delivery of efficient, robust software enterprise planning solutions.

Thanks for watching!

Visit <https://xbsoftware.com/>

3a Kollektornaya Street, Minsk 220004, Belarus

+375 17 200 03 40

info@xbsoftware.com