

Big Data Analytics and Data Visualization for an International Beverage Company

Business:

Big Data, Data Analytics, Data Visualization

Domain:

Consumer Goods

Tools:

Cloudera, Apache Hadoop, Hive, JSP, Tomcat, D3

Key Highlights

Key Success:

- » Wait time for analytics and data manipulation came down from 3 days to 3 hours.
- » Time to generate custom analytics was reduced by 50%.
- » The easy to use User Interface enabled all employees to generate custom analytics without support from IT.

Engagement

Offshore engagement with:

- » 2 Big Data Lead
- » 1 D3.js developer
- » 1 UI developer

Client

The client is the analytics consultant for one of the world's largest beverage companies. The international beverage brand was looking for ways to gain critical insights on-demand for each of its thousands of SKUs in order to identify trends and make fast fact-based decisions.

Overview

Given the enormity of the client's data, the existing process required key decision makers to wait 3 days before they could view meaningful processed data, and required manual intervention from the SAS Data Admin. Indium Software was commissioned to develop a big data analytics solution to optimize data preparation and custom analytics generation, so the client would gain immediate insights without manual intervention. The primary objective was to drastically lower the amount of time it takes the client to go from raw data to useful insights and empower the client's employees to perform ad-hoc self-serve analytics without any advanced technical skills.

1 Status Quo

The client is the analytics consultant for one of the world's largest beverage companies. The international beverage brand was looking for ways to gain critical insights on-demand for each of its thousands of SKUs in order to identify trends and make fast fact-based decisions.

Given the enormity of the data, the existing process required key decision makers to wait 3 days before they could view meaningful processed data and required manual intervention from the SAS Data Admin. High licensing fees, vendor-locking and over-dependence on the SAS Data Admin made the flexible and economically scalable open-source big data analytics alternative very attractive.

2 Business Requirements

The client, whose various brands and divisions operate relatively independently in each country, needed a partner with a very broad breadth of experience available on short notice internationally. Indium Software was chosen for its flexible engagement model and on-demand access to a pool of top big data infrastructure and advanced analytics talent. Indium Software was commissioned to develop big data analytics solutions to:

- » Optimize data preparation and custom analytics generation
- » Gain immediate insights without manual intervention

3 Indium Software's Approach and Implementation

The algorithms to prepare data and generate custom analytics were provided by the client. Indium Software built an integrated big data analytics solution operated through an intuitive User Interface (UI), enabling business users to generate custom analytics without engaging IT.

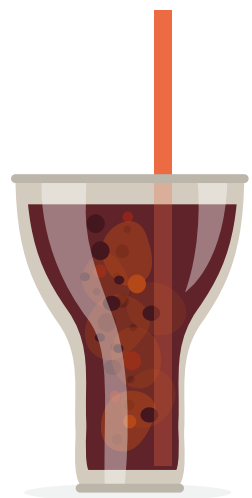
The solution included the below:

- » SAS programs used in data preparation for analytics were reprogrammed in Apache Hadoop MapReduce 12.1 based on the client's algorithms.
- » SAS programs used to generate analytics were reprogrammed in Apache Hive 0.12.0 based on the client's algorithms.
- » An intuitive User Interface to trigger custom analytics generation on-the-fly was built on JSP 2.2 and run on Apache Tomcat 6.
- » Data visualization of custom analytics were programmed in D3.js (Data-driven documents).

4 Business Impact

The major benefits realized across the client's many brands and countries of operation include:

- » Wait time for analytics and data manipulation came down from 3 days to 3 hours.
- » Time to generate custom analytics was reduced by 50%.
- » The easy to use User Interface enabled all employees to generate custom analytics without support from IT. Critical data insights are now only clicks away.
- » Major cost savings in short and long-term as the tools used in the project were free and open-source. The only major expenditure incurred was for infrastructure.



INDIA
Chennai
+91 44 6606 9100
Bengaluru
+91 80 4645 7777
Mumbai
+91 022 6215 4028

USA
Cupertino | Princeton
Toll-free: 1 888 207 5969
SINGAPORE
+65 9630 7959

UK
London
+44 773 653 9098

General Inquiries : info@indiumsoftware.com
Sales Inquiries : sales@indiumsoftware.com