Grazitti Interactive®
Marketing for Digital Natives

Migrating and Exporting eLearning Data to a Data Warehouse

HIGHLIGHTS

Smooth Data Transfer

Advanced Reporting

Gained Deep Insights

Courses Optimization

THE CUSTOMER

The customer is the world's leading experimentation platform, enabling businesses to deliver continuous experimentation and personalization across websites, mobile apps and connected devices. They enable businesses to experiment deeply into their technology stack and broadly across the entire customer experience.

THE CONTEXT

The customer has an academy that offers learning courses and certifications. Their reporting tool, Chartio, did not support MongoDB. For this, the customer wanted to migrate their data from MongoDB to PostgreSQL.
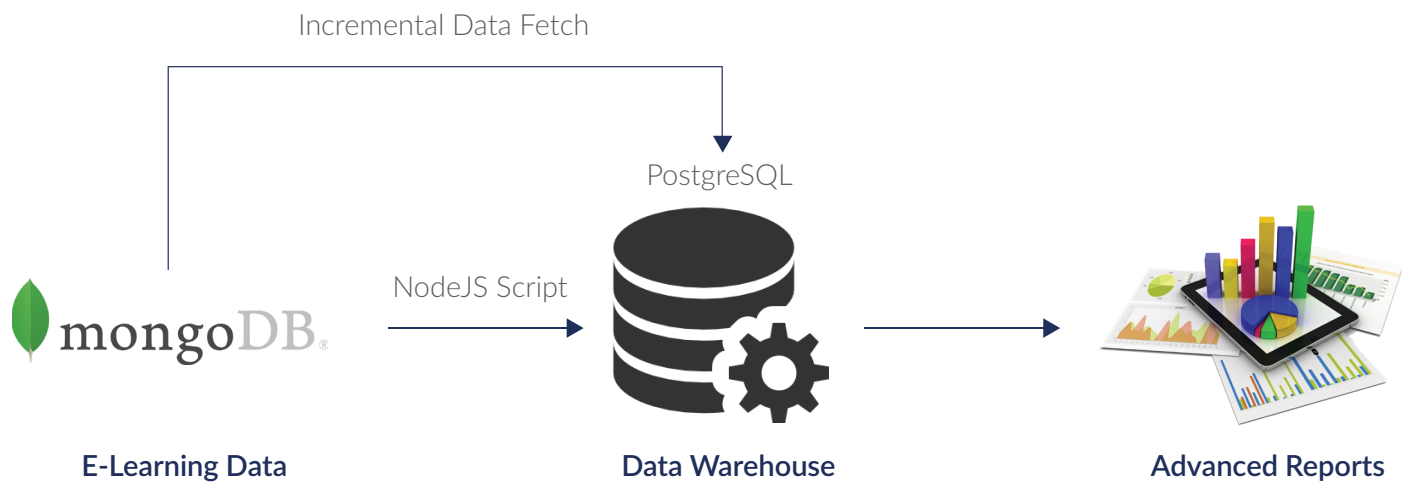
THE OBJECTIVES

The data from MongoDB had to be fetched, parsed, and transposed from JSON format to tabular structure. It was difficult to implement the incremental process as there is no flag for updated date and time. Moreover, source data also had to be sanitized at different levels within the script using different libraries.

THE SOLUTION

- To connect MongoDB and fetch data from the tables, we created scripts in NodeJS

- Next, we created a new data model with snowflake schema design with data integrity and consistency

- Also, data atomicity was done by transposing the data from json format into tabular form

- Along with that, we optimized NodeJS scripts so that they would use less server memory

- We also validated the data and identified keys to match with the target data model

- Moreover, we implemented incremental loading and UPSERT by comparing with previously loaded data

SYSTEM ARCHITECTURE

Incremental Data Fetch

PostgreSQL

NodeJS Script

E-Learning Data   **Data Warehouse**   **Advanced Reports**

THE OUTCOME

By shifting their data to PostgreSQL, the customer was able to connect their reporting tool and create reports. Moreover, with advanced reports, they could understand user behavior in their academy and gain crucial insights like the enrollment rate, course finishing rate, course drop-outs etc.