

Data Analytics and Integrated Data Warehousing Solution

Data Warehousing, Analytics, and Reporting



Project Overview

In today's evolving business environment, the role of business intelligence is pivotal for success. Data analytics helps to analyze business trends, predict changes, and make informed choices.

QBurst developed a data analytics tool with an integrated data warehouse that sources data from multiple sources. The data in the warehouse is processed based on different aspects and the reporting solution generates reports/charts based on metrics chosen by the user.

Client Profile

The client provides psychiatric services and clinicians of quality to hospitals and mental health centers.

Business Requirement

- A robust reporting solution built on a data warehouse that is capable of understanding and forecasting business trends
- A dashboard that is capable of filtering data based on aspects such as date, location, providers, and products
 - The data displayed on the dashboard would change based on roles assigned to users.

Solution

The data warehouse solution receives data from the application database, which is analyzed and loaded in the integration layer to facts and dimension tables. The data is then loaded into the reporting layer using a specific logic applied to existing data. All data loads are automated and scheduled daily so that the manual interference for reporting is reduced.

With drill-to-detail options, the dashboard offers flexibility to toggle between donuts and line trend graphs. We have also implemented an ad-hoc reporting solution so that the users can mix-and-match their own filters and fetch their own custom reports.

Key Features

- Data Warehouse with dimensions and fact tables
- Developed and scheduled ETL/Jobs that load data from source to warehouse
- Built a reporting layer on top of the Data Warehouse to improve performance of dashboards; report loading time less than 2 seconds
- Implemented role-based access to dashboard
- Dashboards with multiple filters
- Automated and scheduled custom reports as per client requirements
- Export reports and charts

Technologies

- PostgreSQL
- Pentaho
- Intalio
- Java

Business Benefits

- The ability to predict business outcomes helped in strategic decision making
- Business users can analyze data and understand current trends
- Significant reduction in manual effort required for reporting



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