Case Study 3:

Alterimac is an organisation working on data relational databases extracted from a website. They have been hosting this db on the legacy systems until now. Requirements are to push these large rdbms workloads on google cloud using ETL methodology. Our team needs to help alterimac staff build their required ecosystem on cloud. Particularly, we need to build ETL from a relational database into BigQuery on GCP using Dataflow to extract, transform, and load (ETL) data from an online transaction processing (OLTP) relational database into BigQuery for analysis.

OLTP databases are often relational databases that store information and process transactions for ecommerce sites, software as a service (SaaS) applications, or games. OLTP databases are usually optimized for transactions, which require the ACID properties: atomicity, consistency, isolation, and durability, and typically have highly normalized schemas. In contrast, data warehouses tend to be optimized for data retrieval and analysis, rather than transactions, and typically feature denormalized schemas. Generally, denormalizing data from an OLTP database makes it more useful for analysis in BigQuery.

Ref architecture