Toyota Financial Services Data Portal

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TOYOTA Financial Services

Project Background

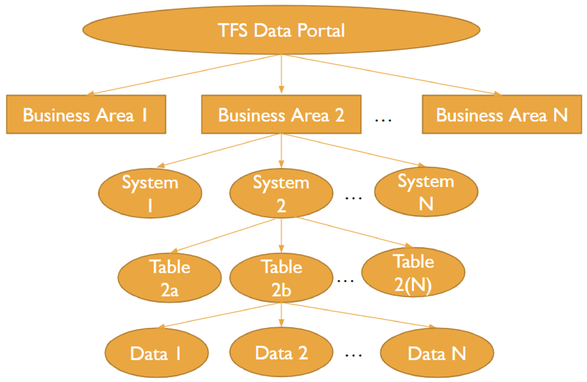
Toyota Financial Services (TFS) relies on multiple disjointed systems to record, store, check and correct all the data that exists in their current ecosystem.

The problem — Lack of a holistic view of data for employees and business partners who want to leverage the data as part of TFS. This approach results in unorganized data, and a manual, time-intensive process of linking physical and business data elements.

Project goal— TFS requires a solution that would allow:

- Data to be organized by business areas such as Loan Originations, Insurance, Servicing etc.
- The ability to do google-like search for data elements to bring up business definitions, physical attributes, data quality rules & profile, along with any related data.

Data Hierarchy



Tools Used

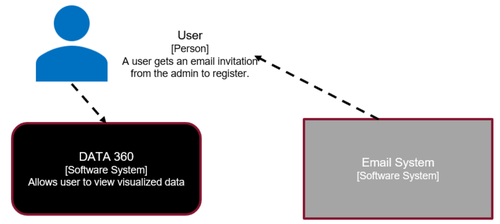
React

Flask
web development, one drop at a time

PostgreSQL

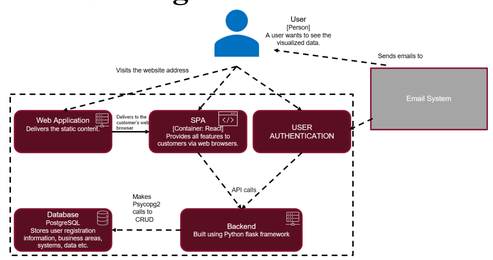
Software Architecture

Level 1: System Context Diagram



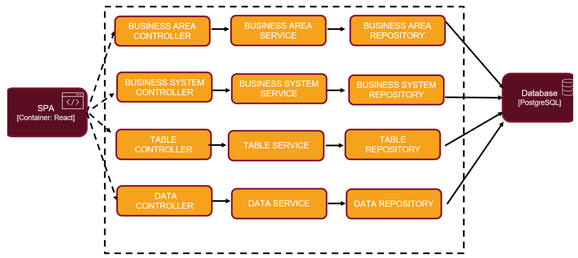
The user is allowed to register on the portal and use it via email invitation only.

Level 2: Container Diagram



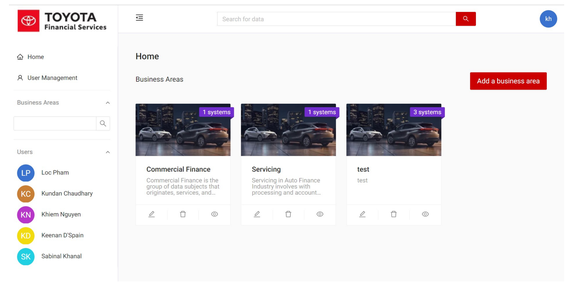
Registered user makes request using RESTful API from frontend to backend. The backend processes the requests and makes PostgreSQL database calls using Psycopg2 library.

Level 3: Component Diagram



Controller: Takes requests from the front-end and passes it to the service or passes the results to the front-end.
Service: The logic layer of the application. Performs all the computations needed.
Repository: Fetches the data from the database or commits the data to database as needed.

Business Areas:



Systems:

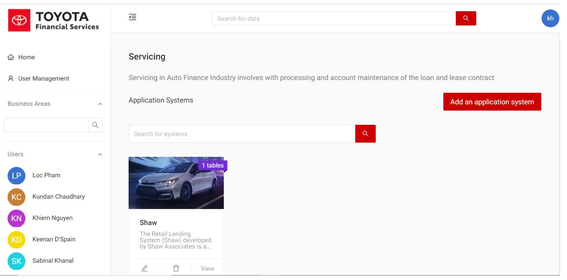
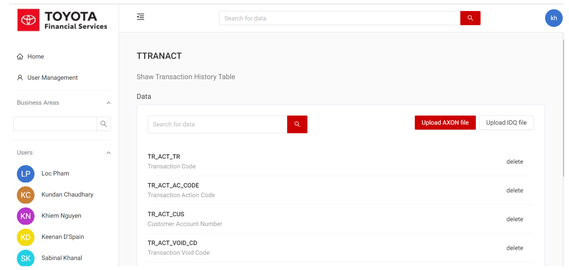
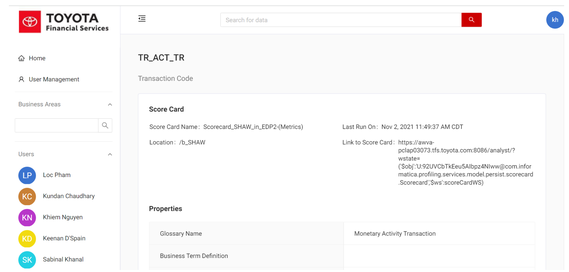


Table with Data:



Individual Data:



Acknowledgements

TFS Team
Gaurav Lall (Project leadership and guidance), Tai Trieu (Project co-ordination and technology support), Aritra Das (Data catalog and Business glossary), Arpita Santra (Informatica Data Quality)
Faculty Advisors
Dr. Krishna Kadiyala, Dr. Bingyang Wei