Venkata Medisetti

Passionate about Data-Oriented Technologies

www.linkedin.com/in/venkatamedisetti/ venkatamedisetti@outlook.com

Master's Degree Program Details:

Master's degree in *Information Technology and Management* from University of Texas at Dallas prepares students to understand the world of Information Technology which is defined by the Merriam-Webster dictionary [1]as **"the technology involving the development, maintenance, and use of computer systems, software, and networks for the processing and distribution of data."**

The study of Information Technology and Management with a specialization in Business Intelligence and Data Mining encompasses my knowledge associated with the design, delivery in organizations such as K2View and prepared me with the required and applicable training to perform the duties of the K2View Data Engineer.

About K2View

K2View is a Software company that provides a data-as-a-service platform that enables enterprises to access the data they want in real-time, in a simplified format, to fit any purpose and shift transformation into the fast lane. K2View's software is primarily used by telecommunications companies such as AT&T and Verizon.

Technology Details

K2View Fabric is a fully distributed data management solution that utilizes Cassandra as its underlying data storage layer. The platform scales linearly, has continuous uptime, and no single point of failure (without downtime or impact on production systems). K2View Fabric connects virtually with any data source, organizes the data around what matters most to business based on the database model (business entities such as customers, stores, transactions or products), stores the data in secure micro-databases, synchronizes and exposes the data in real-time through web services.

Responsibilities

As a K2View Data Engineer,

1. Providing services toward the continued development, testing, customization, support and implementation of the K2View proprietary products on client projects and improving the performance of the data to provide a better real-time system.
2. Deals with data extraction from complex data warehouses, databases such as Oracle and processing other source systems such as CSV files, parsing XML strings into staging Database (Cassandra) and synchronize the data using Java, MySQL and K2View proprietary platform.
3. Developing Micro Database Schemas. Implementing and testing data solutions in DEV/PRE_PROD environments.
4. Organizing and migrating the data accordingly to optimize the performance of the load (Source and Target environments).
5. Developing Web Services to retrieve the data from the micro databases.
6. Other responsibilities include analyzing and performing ETL operations using K2View tools to map the database schema.
7. Discussions which lead to technical oversights, understanding and analyzing the business/client requirements to provide data solutions successfully.
8. Monitoring and providing support to projects that are already in Production environment.

Project Details

Verizon FIOS Customer Topology Correlation and Dispatch Reduction:

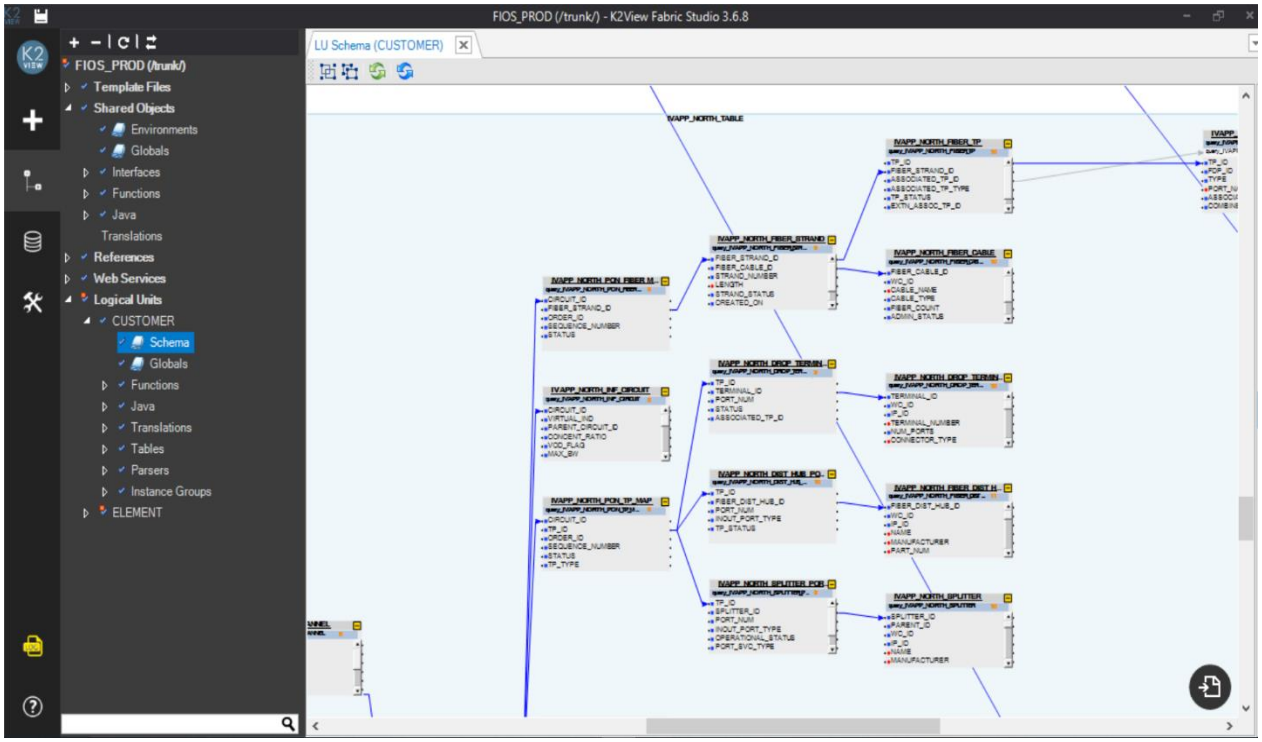
This project integrates data from several systems at Verizon and create a FIOS customer Logical Unit entity and network element Logical Unit entity within the K2View Fabric software platform. Micro web services are developed and integrated with Verizon's Delphi system to aid in the dissemination of network data, providing information to help reduce the number of Tech Dispatches. Maintained project in GIT/SVN repositories in a remote server

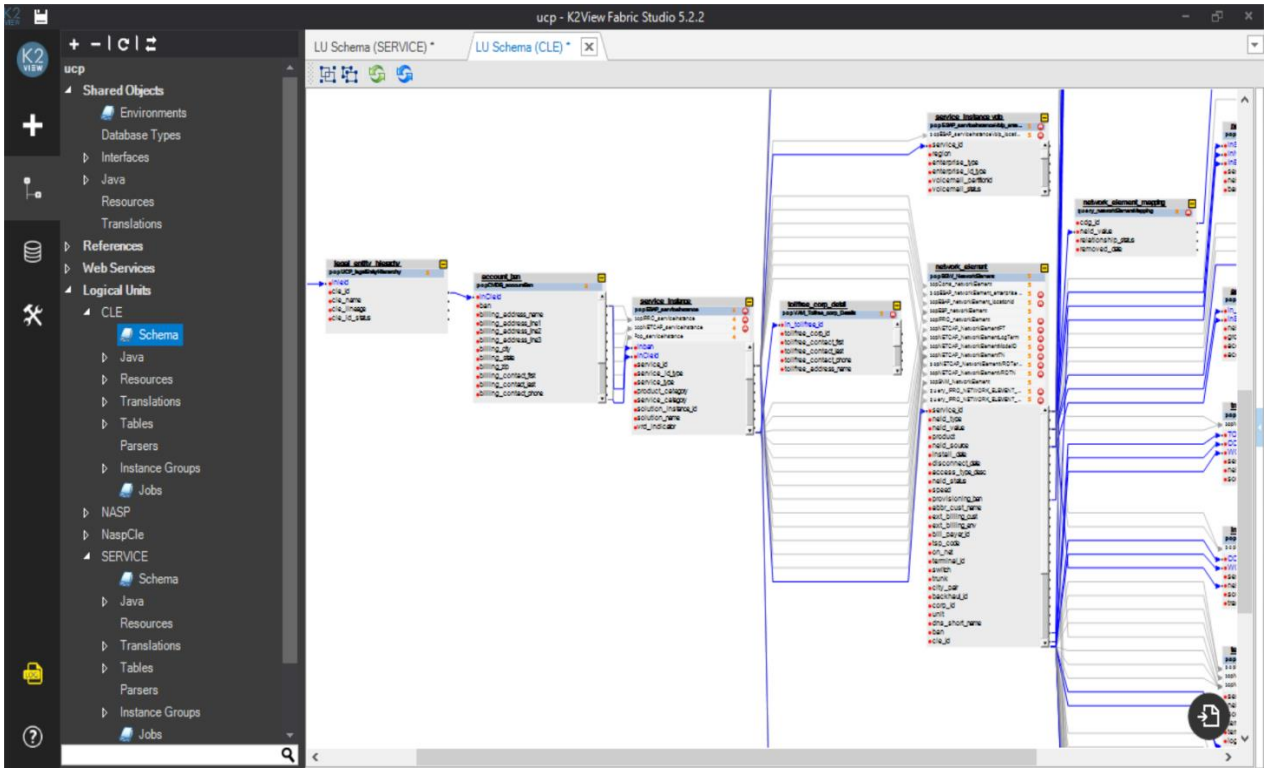
[1] https://www.merriam-webster.com/dictionary/information%20technology

Duties
Note: Some screenshots are edited for security purpose.

1. Developing Micro Database Schemas:

As per the business requirement, I develop the database schema in order to have the database model which meets the client requirement. The schema complexity depends on the source database. Most of the huge traditional data is stored for clients like AT&T is Oracle DB and the database schema pulls the data into K2View Micro databases as an Extract process and stores it for any operations. This allows us to create the micro Databases for all the business logical units (unique identifier) such as "CUSTOMER", "TELEPHONE NUMBER" etc.

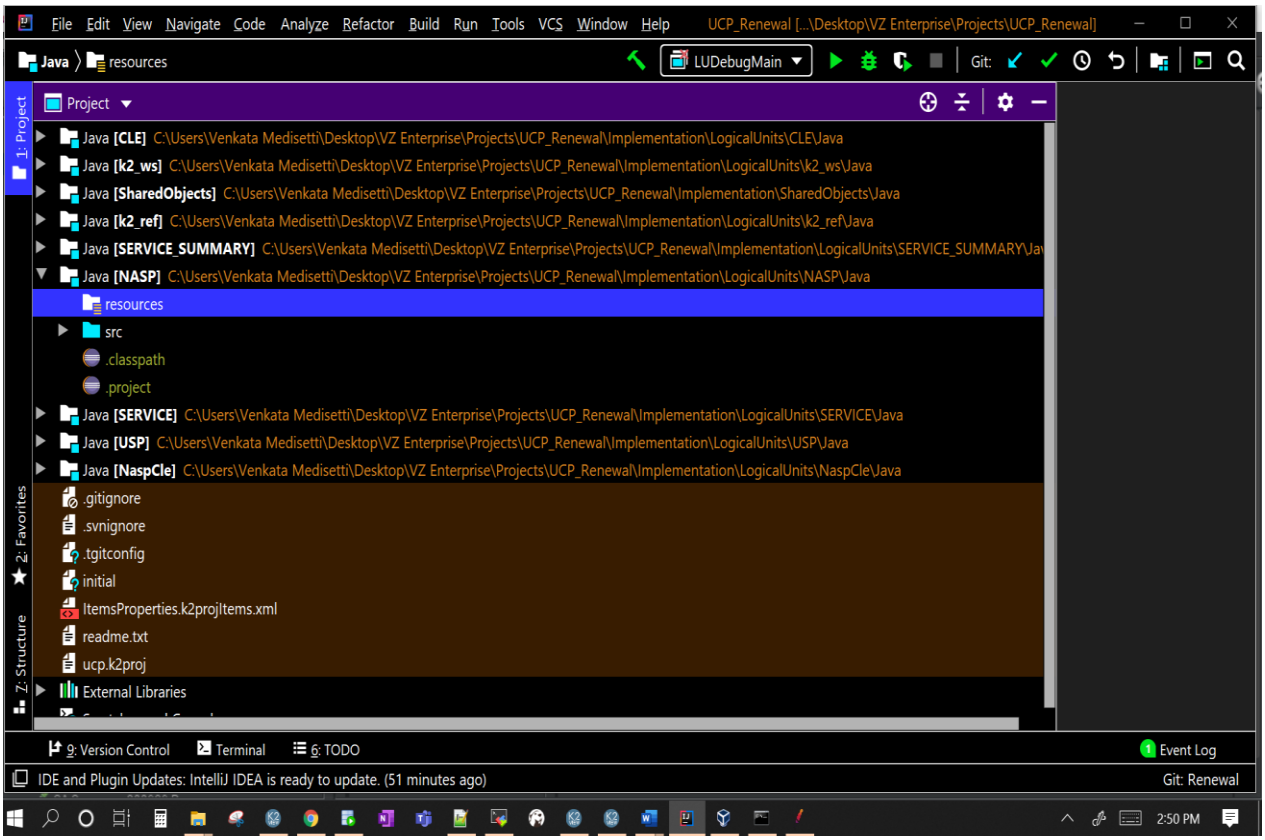




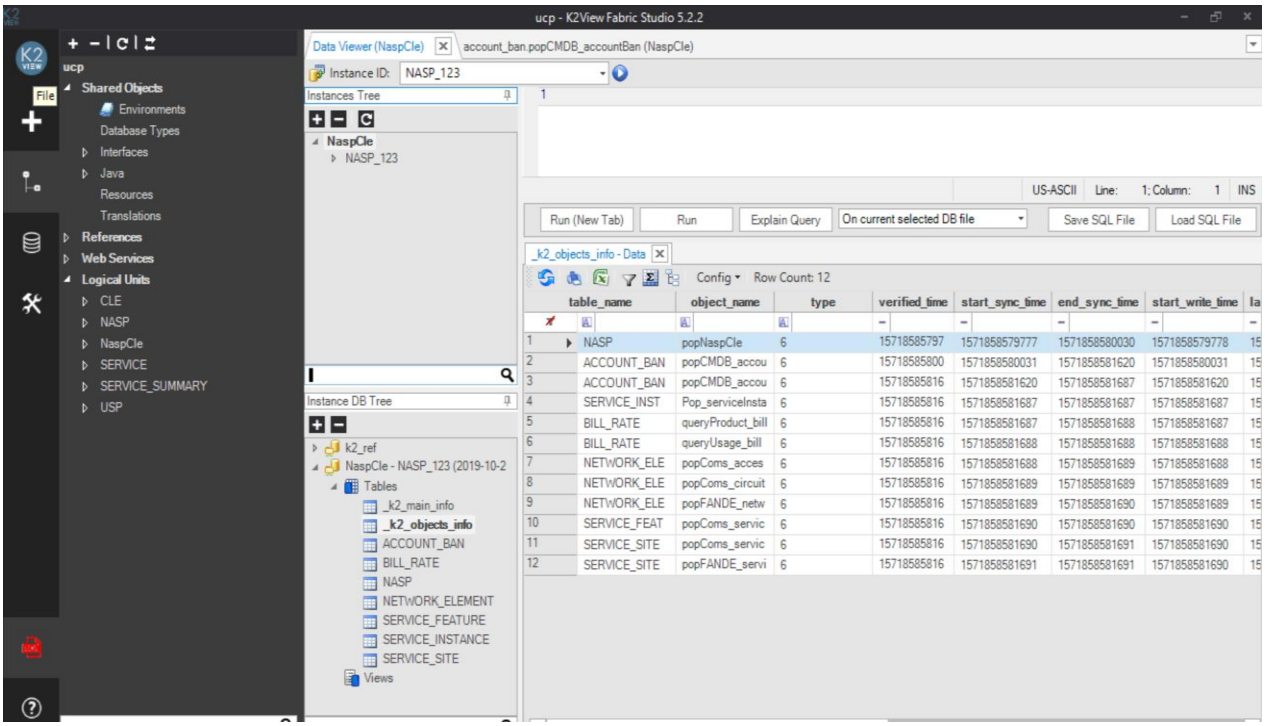
2. Implementing and Testing Data solutions in LOCAL/DEV/PRE_PROD environments:

After the Database model is created, the solution needs to be tested in locally and other lower environments to validate the project code/any implementation improvements and performance tuning. Attaching the screenshots of the steps for Validations and the testing.

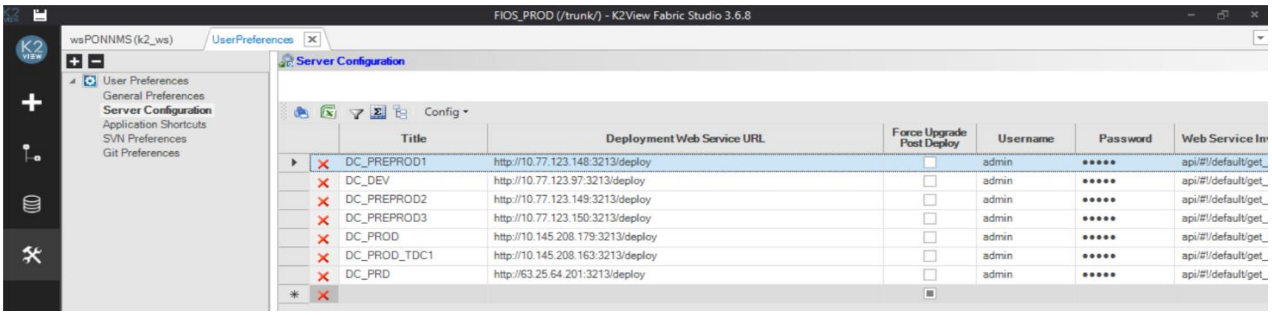
- Debugging the project using IntelliJ



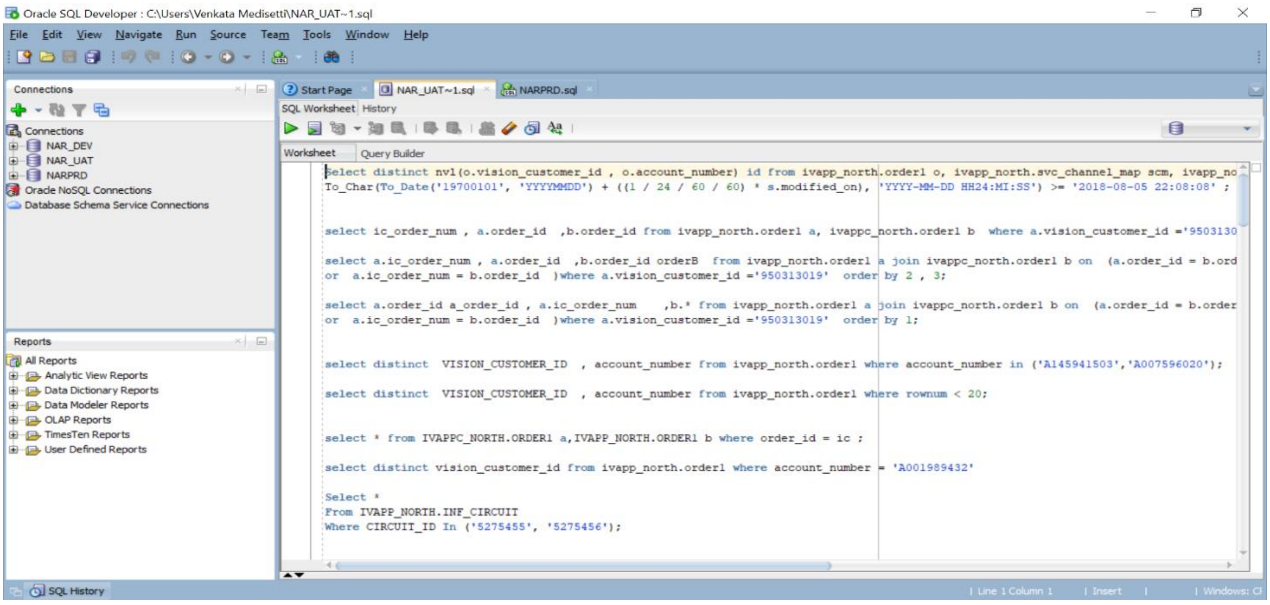
- Testing the project, data validation and tuning performance using inbuilt tools locally



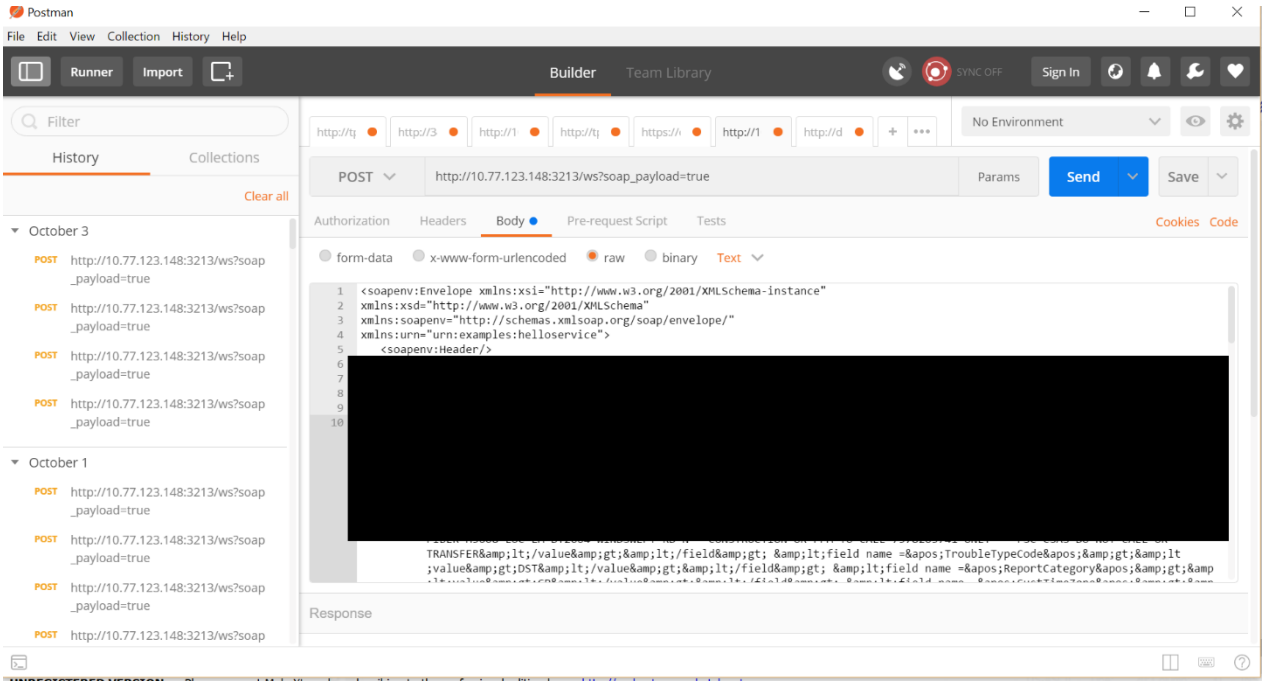
- Deployment process of deploying the project into required environment using the K2View Fabric



- SQL Developer for validating the source system DB to retrieve the right level of data.

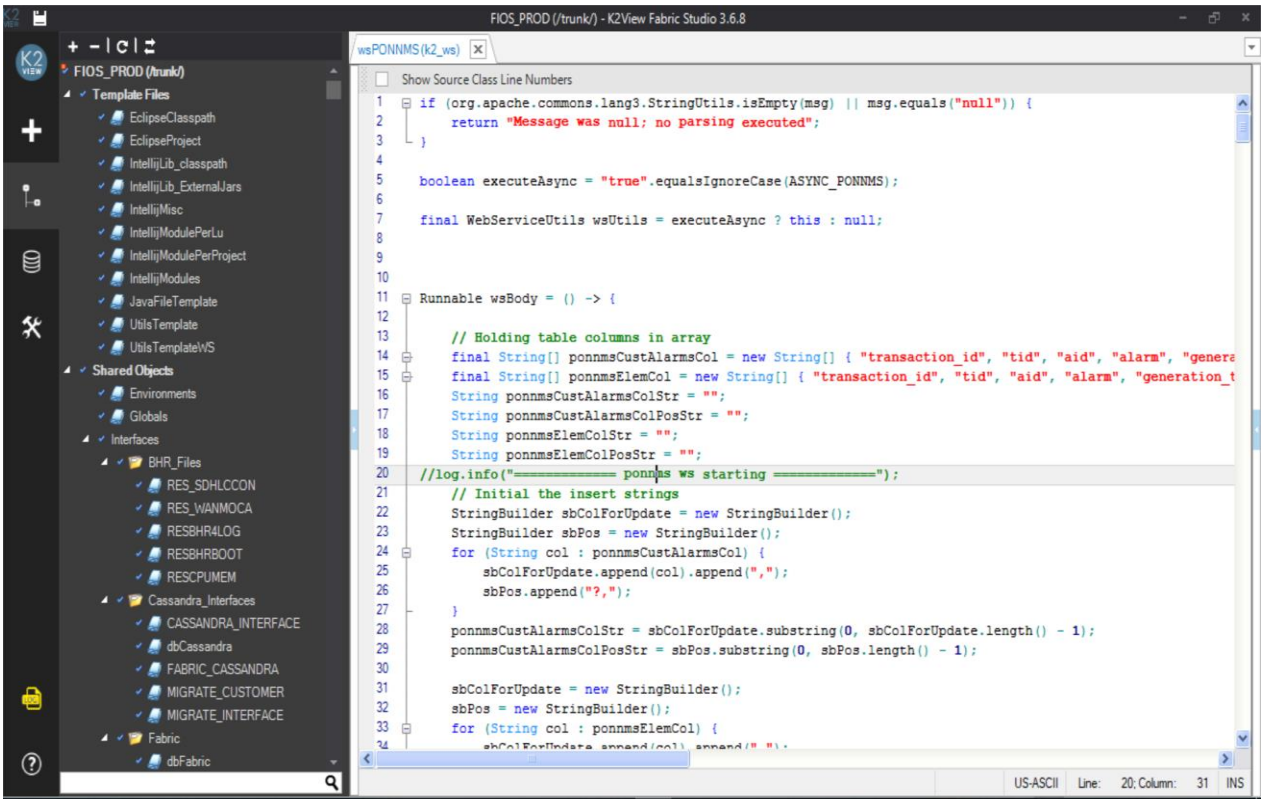


- POSTMAN to generate the POST web service calls to spoof the data and test the functionality.

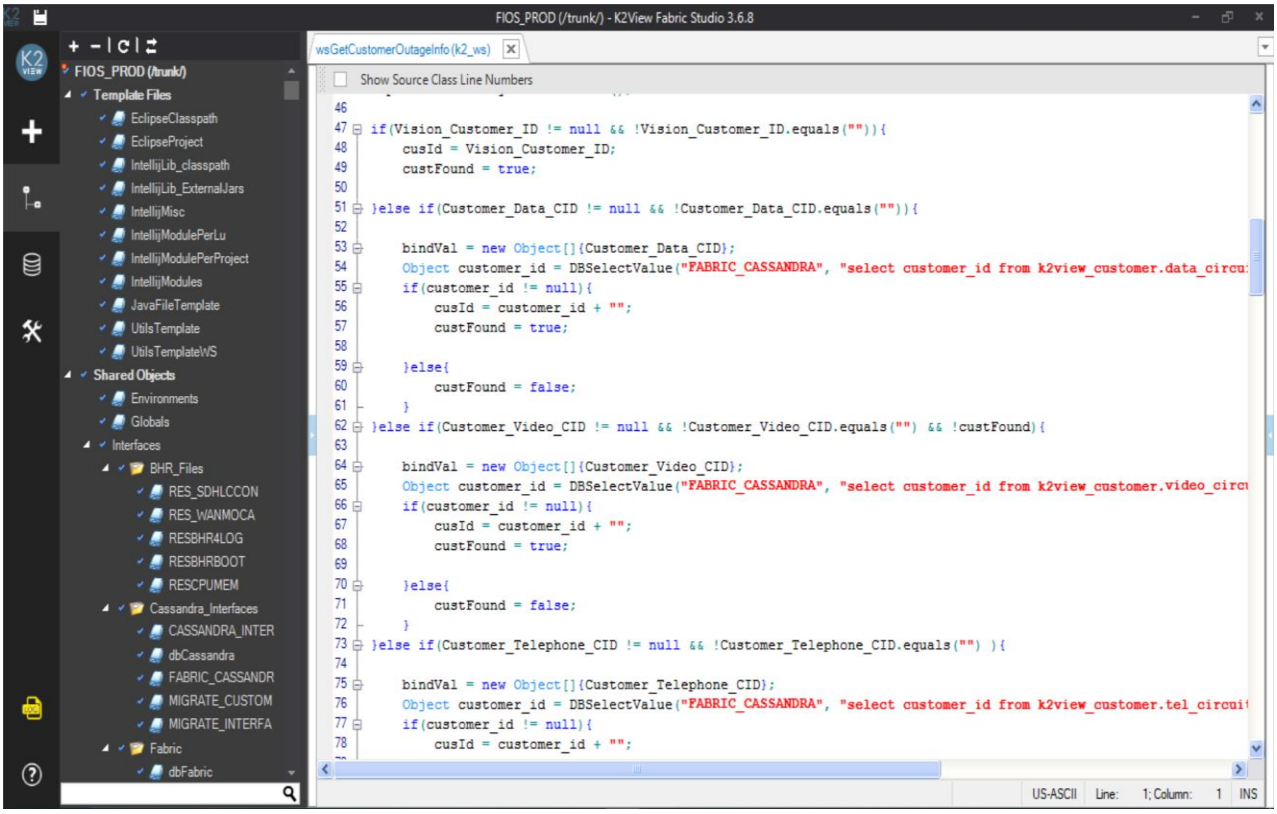


3. Developing Web Services

- Web Services to send the data to the Cassandra Database and the Micro Databases

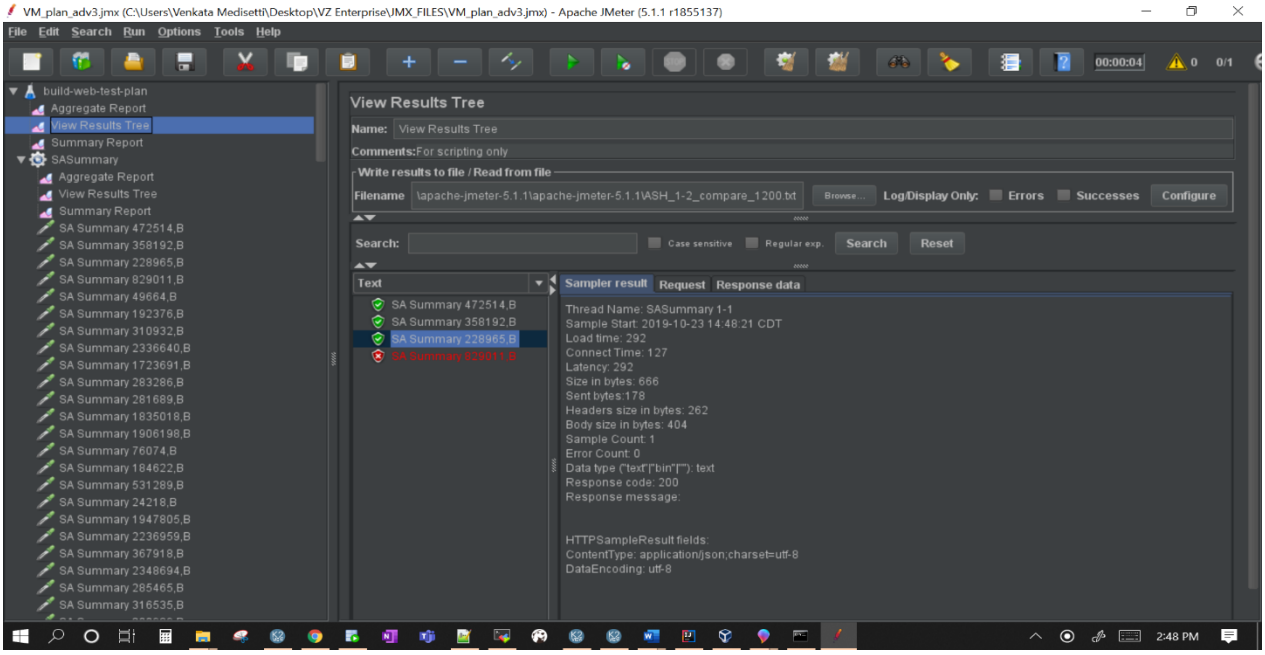


- Web Services to retrieve data from Cassandra Databases and the Micro Databases



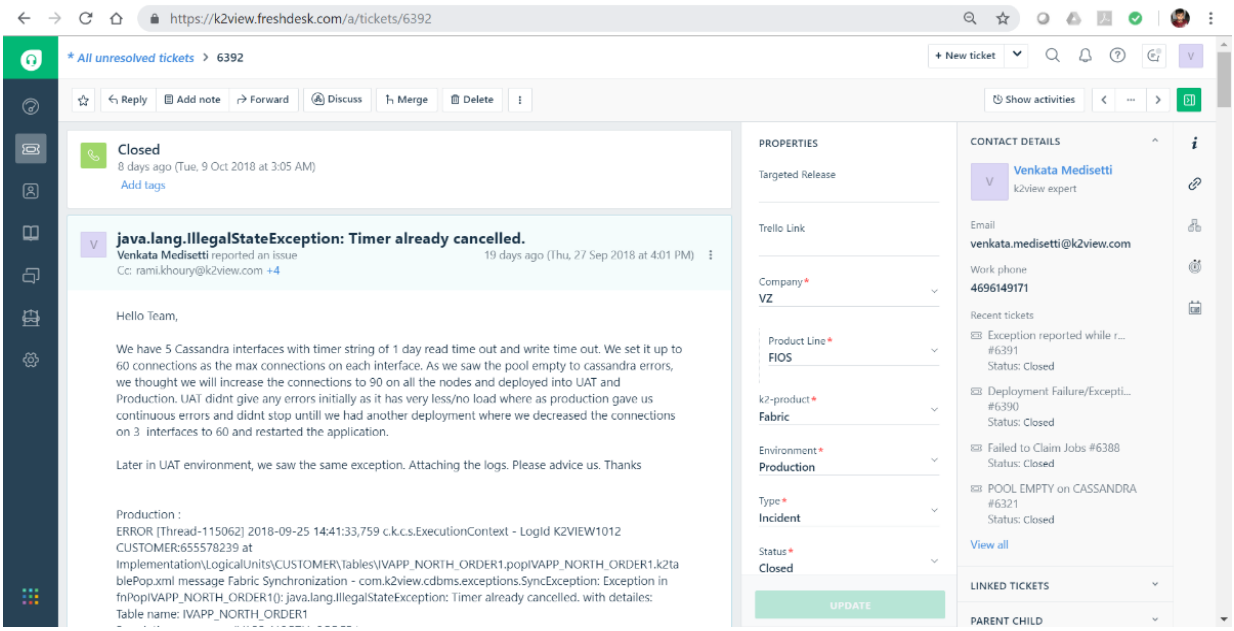
4. Performance Tuning:

- Running Jmeter with reasonable number of requests:

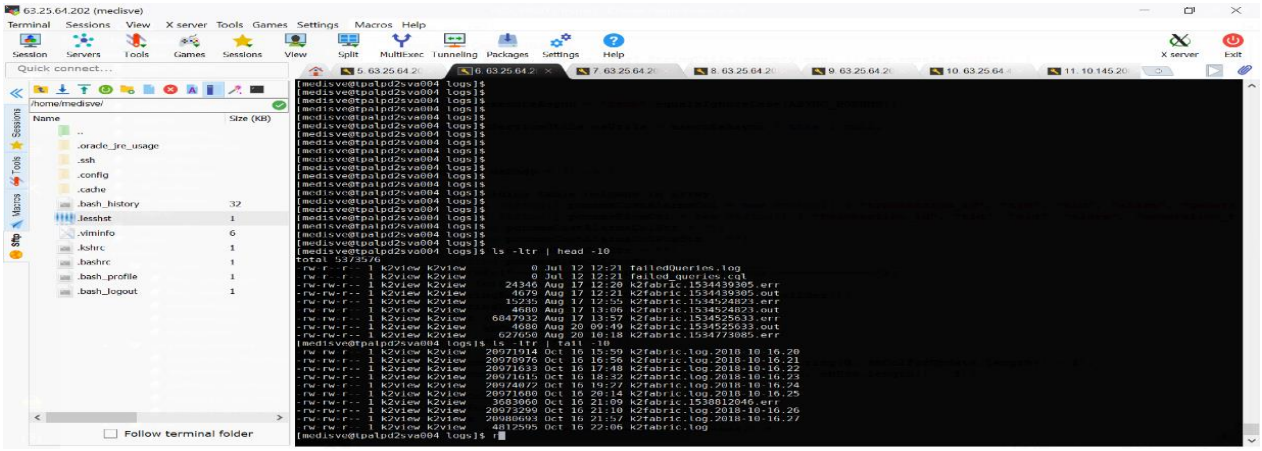


5. Monitoring and Providing Support to Production Environment

- Raising a support ticket if expertise needed using Freshdesk portal of K2View



- Monitoring the Logs of K2View (named as k2fabric.log)



- Monitoring the Cassandra Database