2025-08-25 Meeting Agenda

🗓️ Date

25 Aug 2025

👥 Participants

- RAIL PG-2 project team
- Murtaza (Proxy Client)

🥅 Goals

- Report current process
- teamworking
- Future plan
- QA

🗣️ Discussion topics

1. **Report current process:**

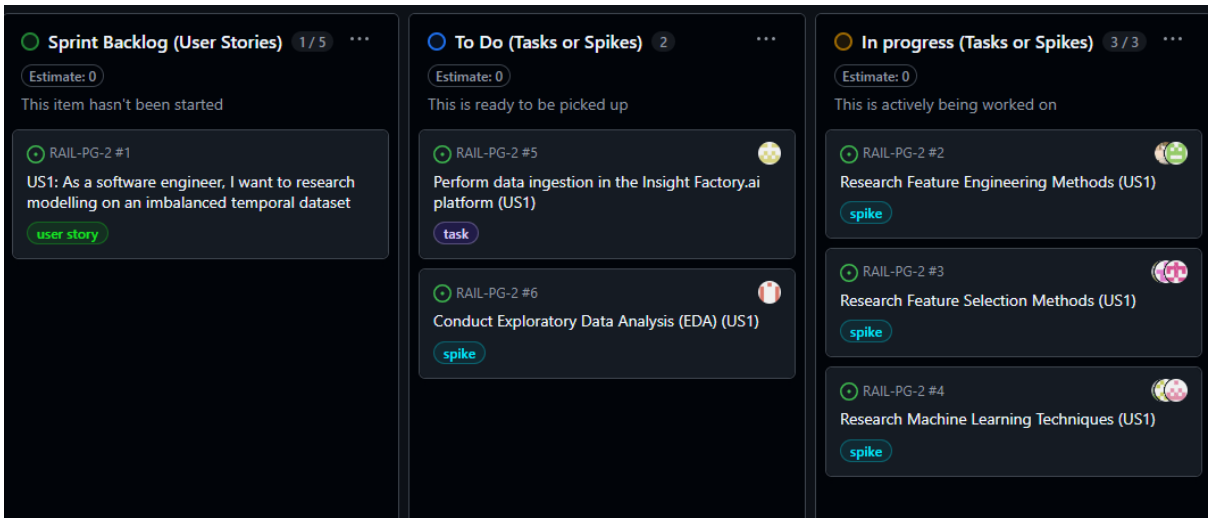
   Insight Factory Platform

   Data accessed

   Tables checked

   Schema reviewed

2. **Github teamworking**



3. Research finding:

In progress :

1 Research Feature Engineering Methods:

Find at least 5 relevant feature engineering techniques for temporal and imbalanced datasets.

temporal data:

1. Rolling window statistics
2. Lag features
3. Rate of change
4. Computing left-right/front-rear differences

imbalanced data :

1. Resampling (Undersampling/Oversampling)
2. Peak/spike counters in a window
3. Combining risk factors

2 Research Feature Selection Methods:

Find at least 5 relevant feature selection techniques for temporal and imbalanced datasets.

We plan to adopt group lasso as the most suitable method at the current stage and proceed with code development.

3 Research Machine Learning Techniques:

Find at least 5 machine learning algorithms or approaches suitable for imbalanced temporal datasets.

LR, ANN, SVM, RF, Transformer

Next Steps / To Do:

1 Perform data ingestion in the Insight Factory.ai platform

Set up and configure data ingestion pipeline in Insight Factory.ai.

Execute ingestion process with validation.

2 Conduct Exploratory Data Analysis (EDA)

Analyze temporal patterns, class imbalance, and feature relationships.

Summarize key findings from EDA.

website address: **Backlog · RAIL PG-2**

4. QA

1. Clarification on future SQL warehouse access – Will the project team have permissions, and what would be the expected timeline?