**The Alarm Prediction Project,** which was successfully completed as an end-to-end initiative. The project involved utilizing a dataset provided by the CLSS platform team, along with generating synthetic data to enhance prediction capabilities.

The process included:

* Performing thorough feature engineering to extract relevant features for predictive modeling.
* Applying hyperparameter tuning to identify the most suitable algorithm for optimal model performance.

Despite the diligent efforts in modeling and tuning, the results indicated that the limited amount of data points hindered the achievement of the desired predictive accuracy. This outcome highlights the need for a more comprehensive dataset to improve the model's performance in future iterations.

**Building Floor Plan scraping:**

The process was successfully initiated with image segmentation of the floor plan, enabling us to identify room types, room counts, and room dimensions by extracting text from the segmented images.

To accomplish text extraction, I explored the use of Optical Character Recognition (OCR) and identified the PaddleOCR library as an effective tool for this purpose. However, due to company standards restricting the usage of certain open-source libraries, achieving the desired results on the organization's devices was not feasible.

**The collaborative efforts** with Ravi and the Tredence vendor team in successfully setting up the Azure infrastructure and Azure Databricks environment. The primary objective was to securely transfer on-premises data to the cloud and facilitate scalable data processing and analytics.

Key accomplishments include:

* Designing and deploying the Azure infrastructure to meet the project’s requirements.
* Setting up Azure Databricks for efficient data storage, processing, and analytics.
* Collaborating effectively with both internal and external teams to ensure seamless integration and implementation.

I have communicated the completion of my project to Ramesh and informed him that I am available to address any queries he may have regarding the project. Additionally, I have highlighted the importance of ensuring that the project aligns with Honeywell standards and am open to feedback or suggestions he may provide.