Product Research on Feature Store

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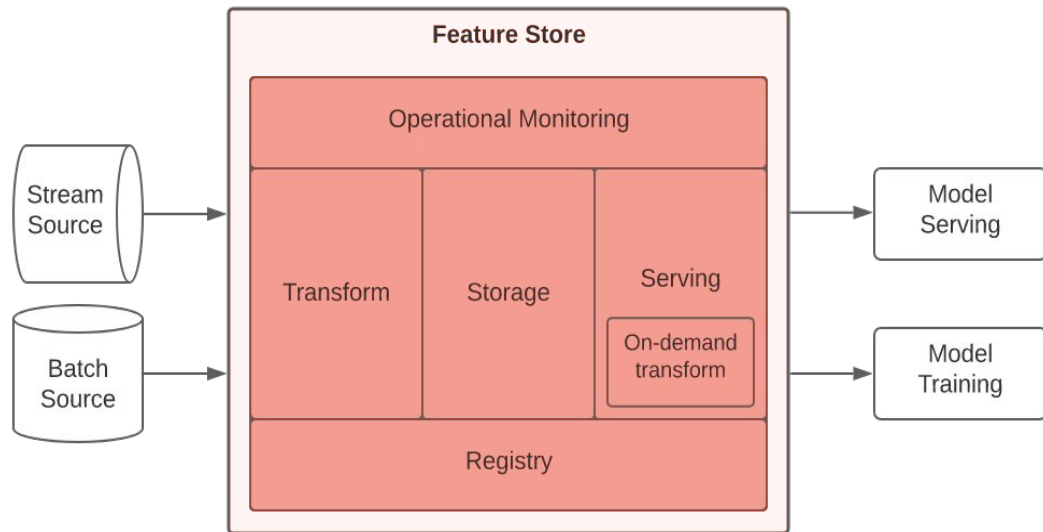buddhadeb33@gmail.com

+91 7501385296
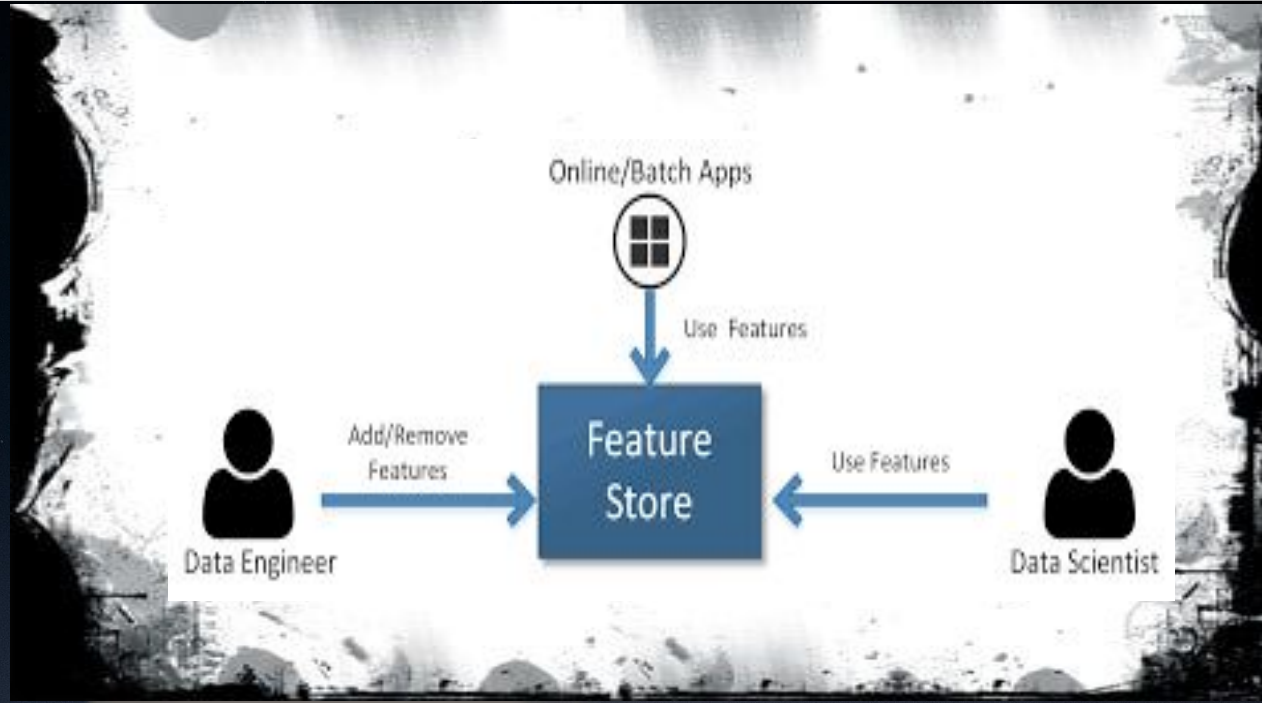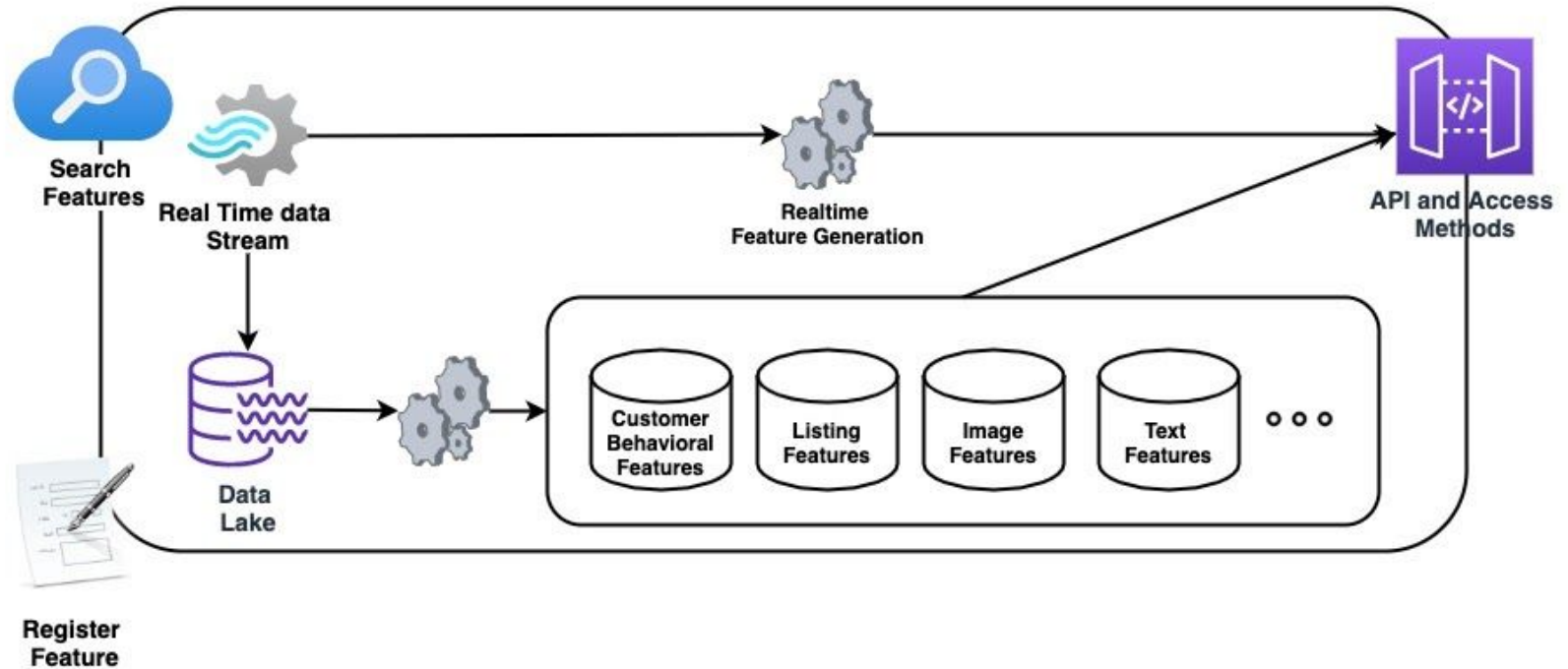
What is Feature Store?

Feature store is a centralized place for creating , managing and searching for features used in machine learning pipelines.
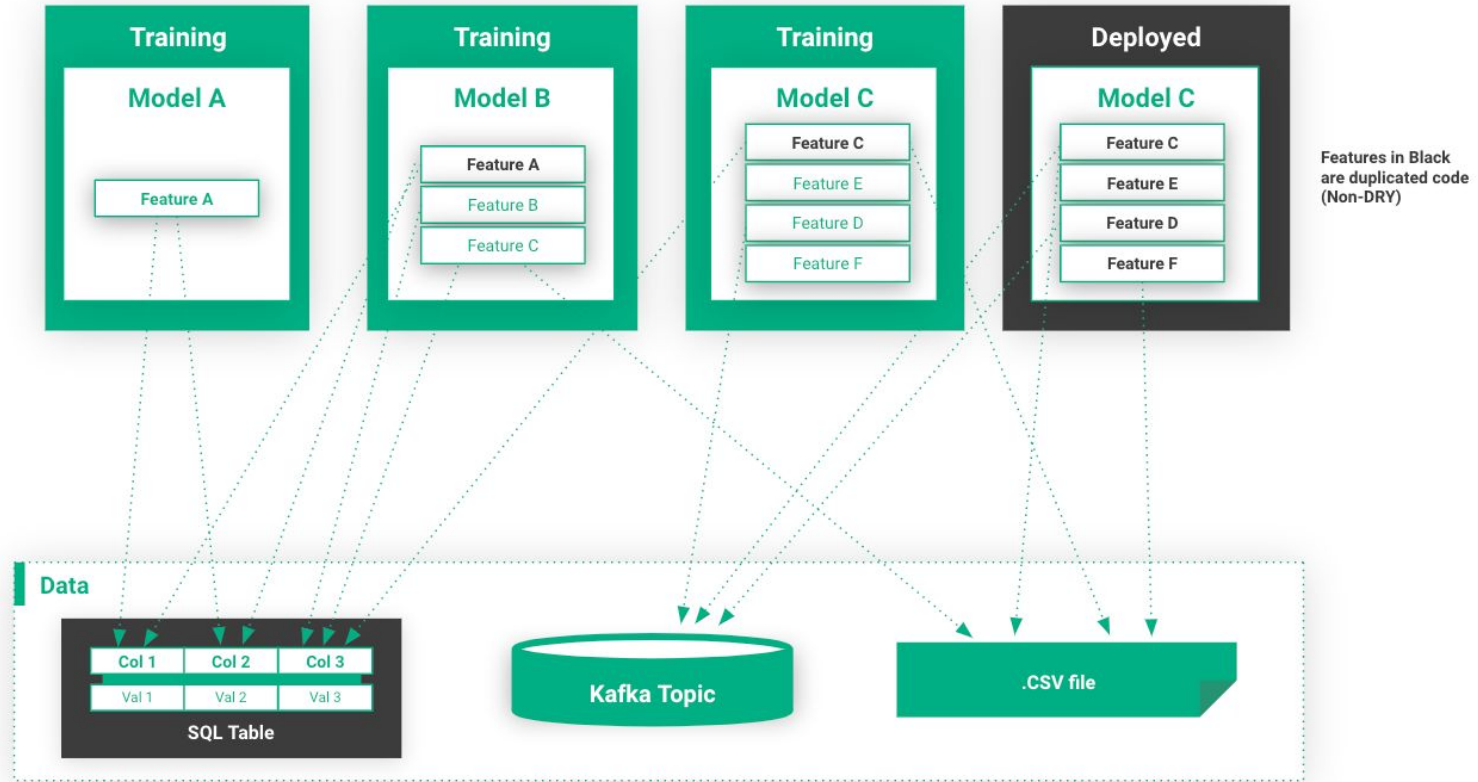
The problems suppose to be solved by feature store

- **Robust data transformation and real time feature engineering**
- **Write features once**
- **Monitoring and drift detection**
- **Better collaboration**
- **Catalog selection**
- **Smooth model deployment in production**

What are building blocks of feature Store?

Life Before the Feature Store

A machine learning Infrastructure with a feature store

Data Sources

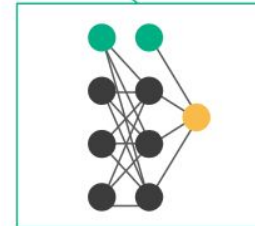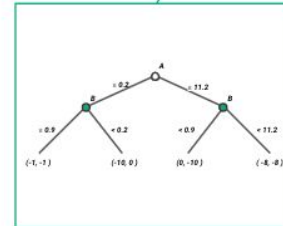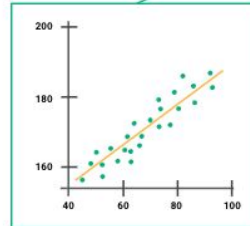Dataset 1   Dataset 2   • • •   Dataset 72

Feature Store
A data management platform for machine learning. The interface between data engineering and data science
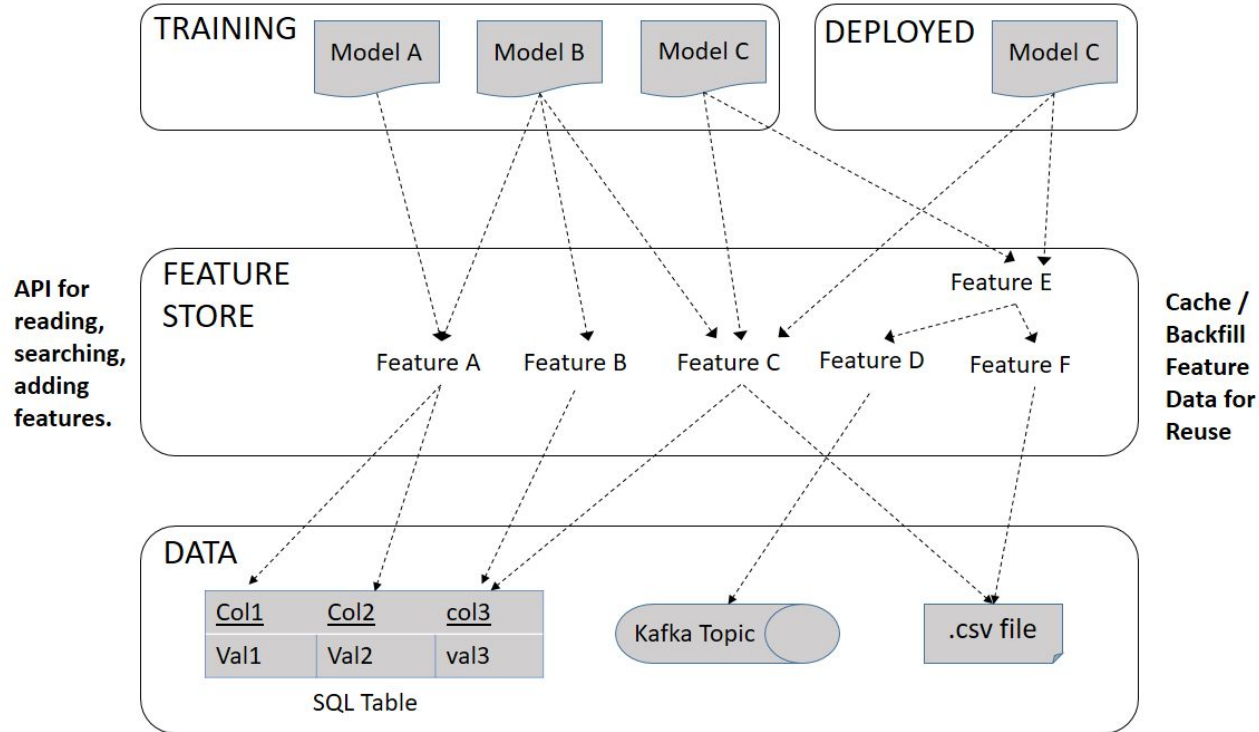
FEATURE STORE

Models
Models are trained using sets of features. The features are fetched From the feature store and can overlap between models.
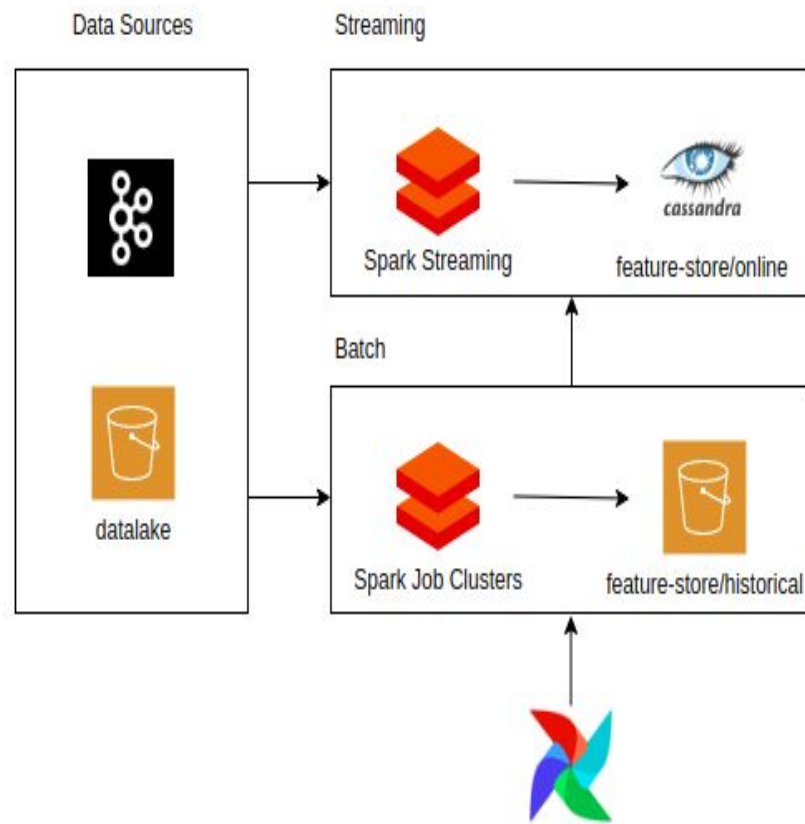
Process flow block diagram for feature Store

Features & Capabilities of Feature store

❏ **Faster development**

❏ **Smooth model deployment in production**

❏ **Increased model accuracy**

❏ **Better collaboration**

❏ **Track lineage and address regulatory compliance**

❏ **Feature store and MLOps**

Conclusion

Some of the largest tech companies that deal extensively with AI [have built their own feature stores](#) (Uber, Twitter, Google, Netflix ,Facebook, Airbnb, etc.). This is a good indication to the rest of the industry of how important it is to use a feature store as a part of an efficient ML pipeline. Given the growing number of AI projects and the complexities associated with bringing these projects to production, the industry needs a way to standardize and automate the core of feature engineering. Therefore, it is fair to assume that the feature store is positioned to be a first level citizen of any machine learning pipeline.

Bibliography

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➢ https://towardsdatascience.com/what-are-feature-stores-and-why-are-they-critical-for-scaling-data-science-3f9156f7ab4

THANK YOU !!!