

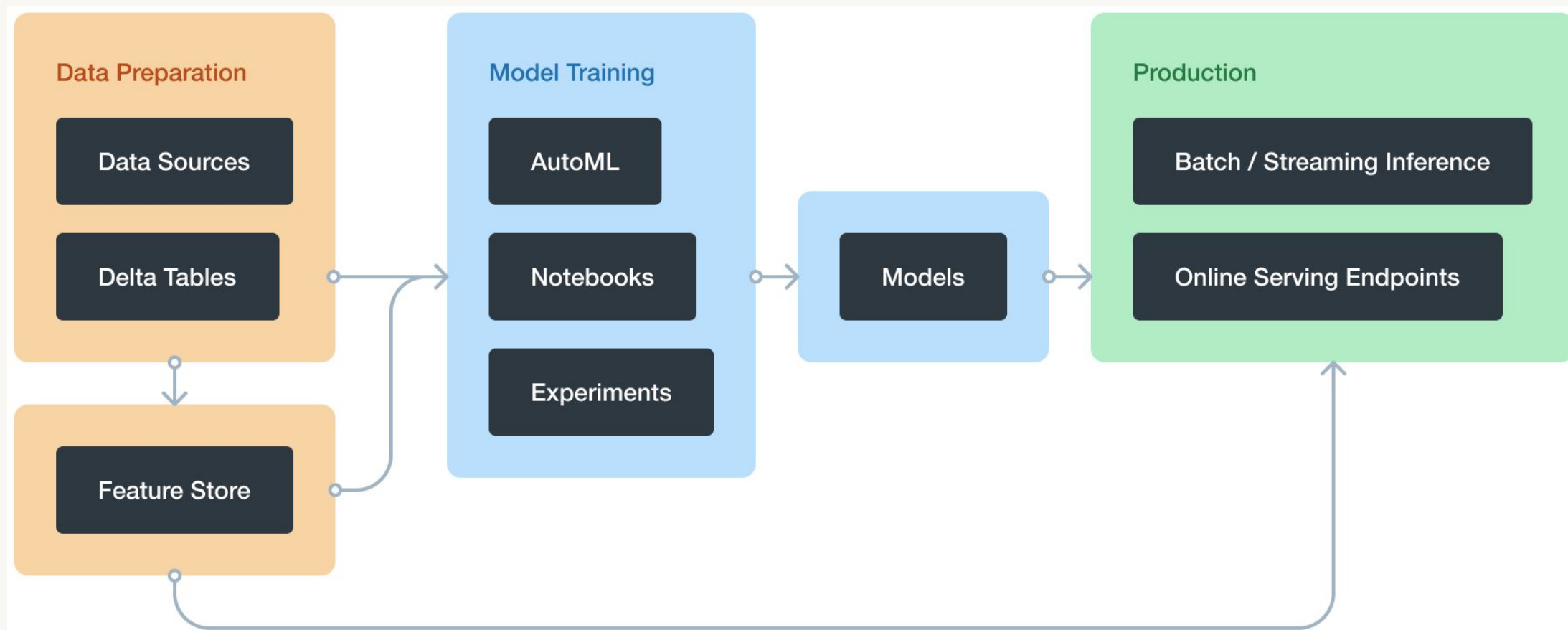


Model Training with Databricks ML



Learning objectives

- Describe how Databricks ML supports manual and automatic model development.





Data Science Workspace



AutoML



Data
Ingestion



Data
Versioning



Model
Training



Model
Tuning



Runtime and
Environment



Feature
Store



Batch (high
throughput)



Real Time
(low latency)



Batch
Scoring



Online
Serving



Monitoring



MLOps / Governance

Open Data LakeHouse Foundation with



DELTA LAKE

Hold for Video

Required parameters:

- **dataset** - Input Spark or pandas DataFrame that contains training features and targets. If using a Spark DataFrame, it will convert it to a Pandas DataFrame under the hood by calling `.toPandas()` - just be careful you don't OOM!
- **target_col** - Column name of the target labels

We will also specify these optional parameters:

- **primary_metric** - Primary metric to select the best model. Each trial will compute several metrics, but this one determines which model is selected from all the trials. One of **r2** (default, R squared), **mse** (mean squared error), **rmse** (root mean squared error), **mae** (mean absolute error) for regression problems.
- **timeout_minutes** - The maximum time to wait for the AutoML trials to complete. **timeout_minutes=None** will run the trials without any timeout restrictions
- **max_trials** - The maximum number of trials to run. When **max_trials=None**, maximum number of trials will run to completion.

```
1 from databricks import automl
2
3 summary = automl.regress(train_df, target_col="price", primary_metric="rmse", timeout_minutes=5, max_trials=10)
```



Model Training with Databricks ML

Use AutoML to develop a
baseline model



Learning objectives

- Use AutoML to develop a baseline model.