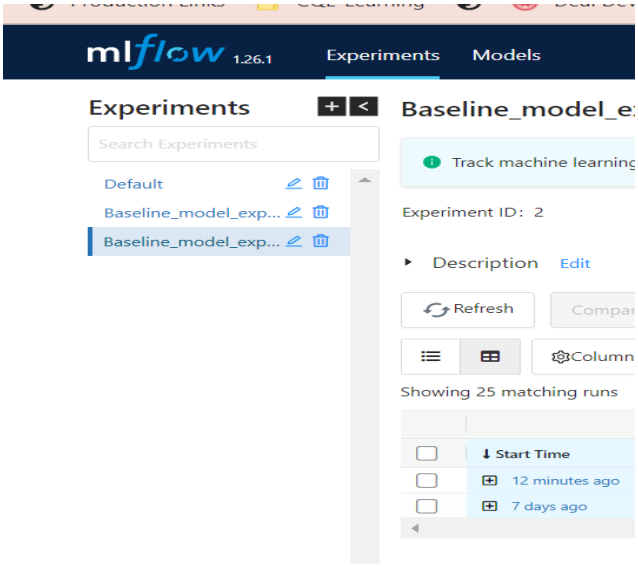
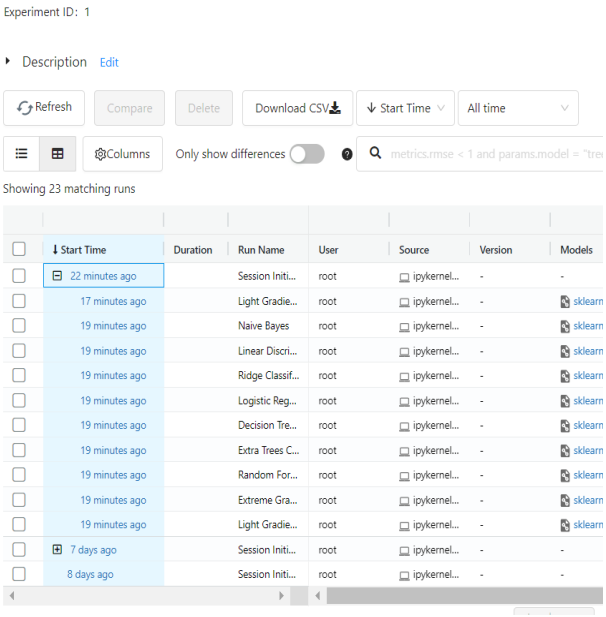
ML ops Assignment

Screenshot of ML Flow and Airflow

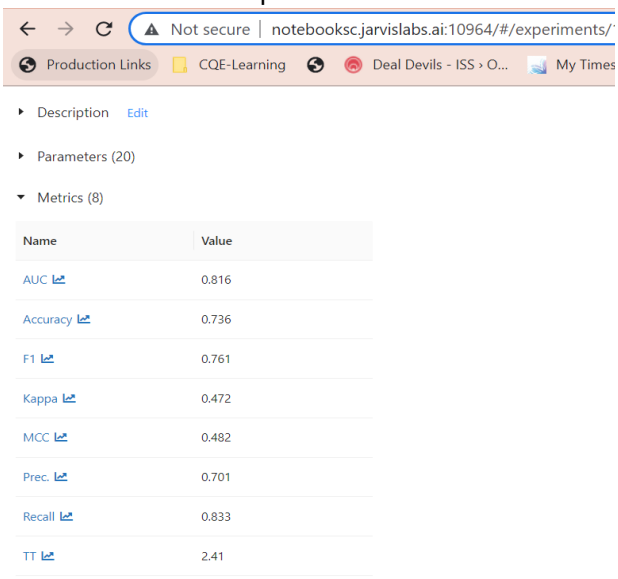
1. List of all Experiments



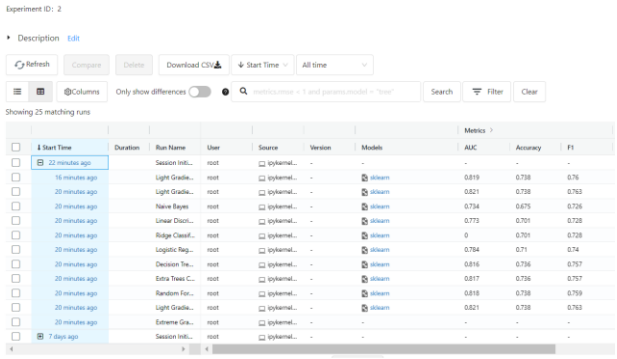
2. All Experiments Before dropping Features.



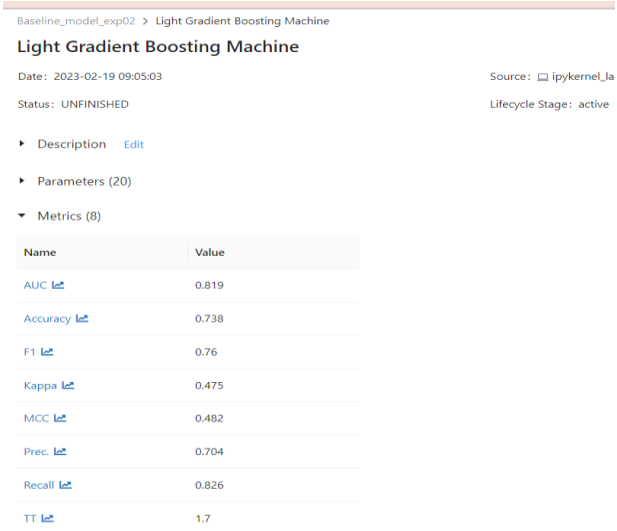
3. One of the model's parameters.



4. Experiments after Dropping features .

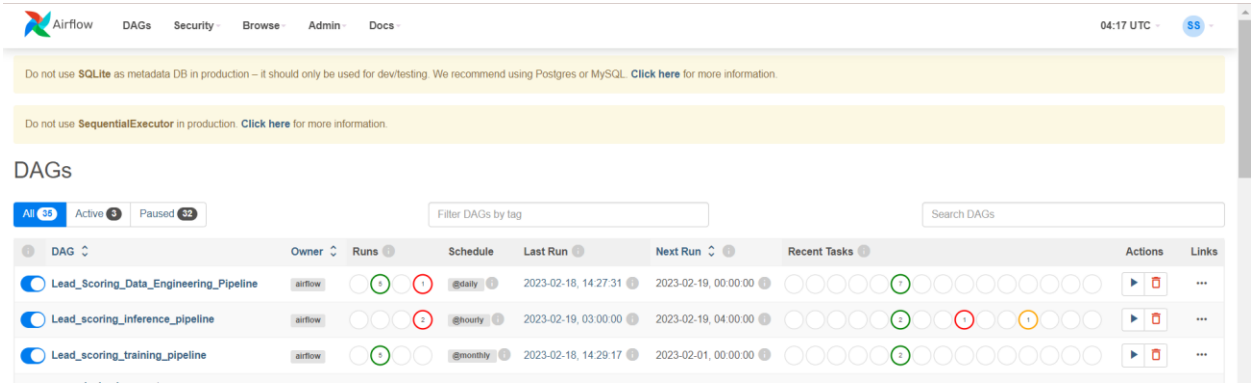


5. One of Model's Parameters

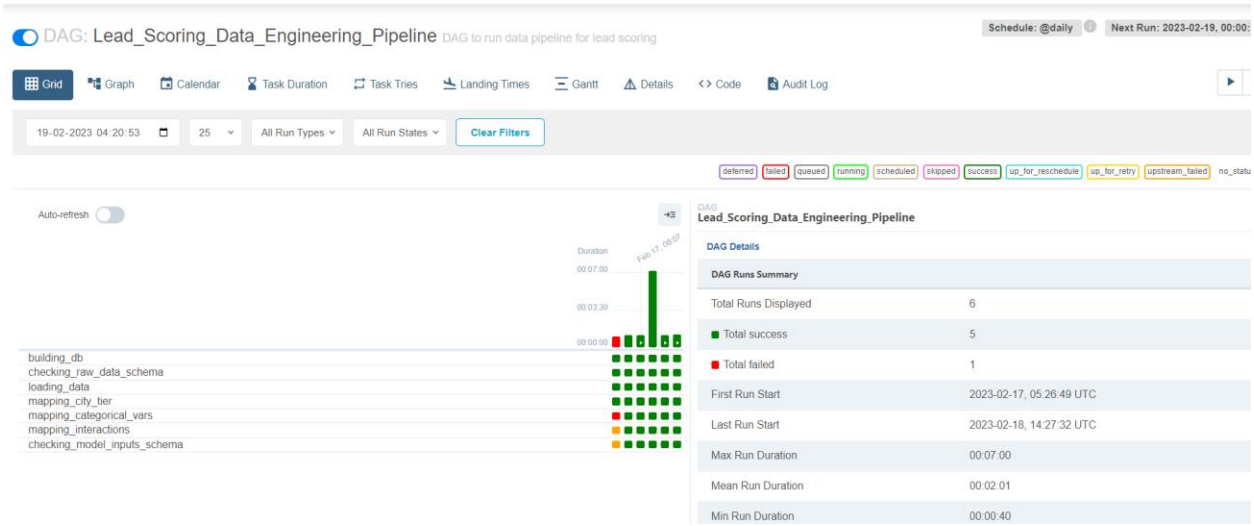


Airflow Pipelines

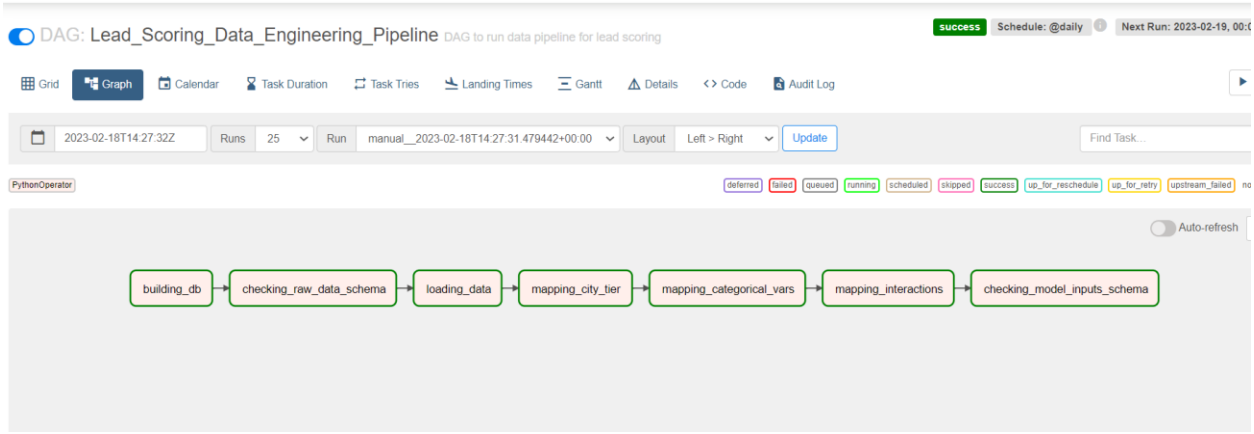
1. Screenshot of Airflow UI



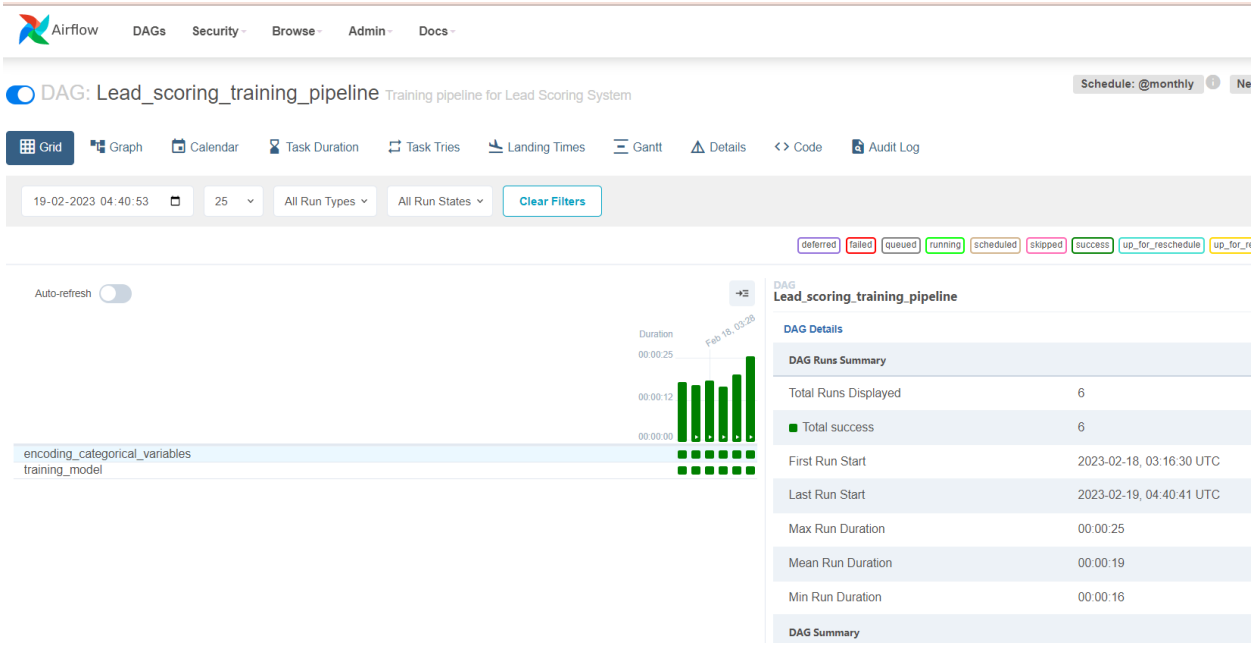
2. Screenshot of Data Engineering Pipeline



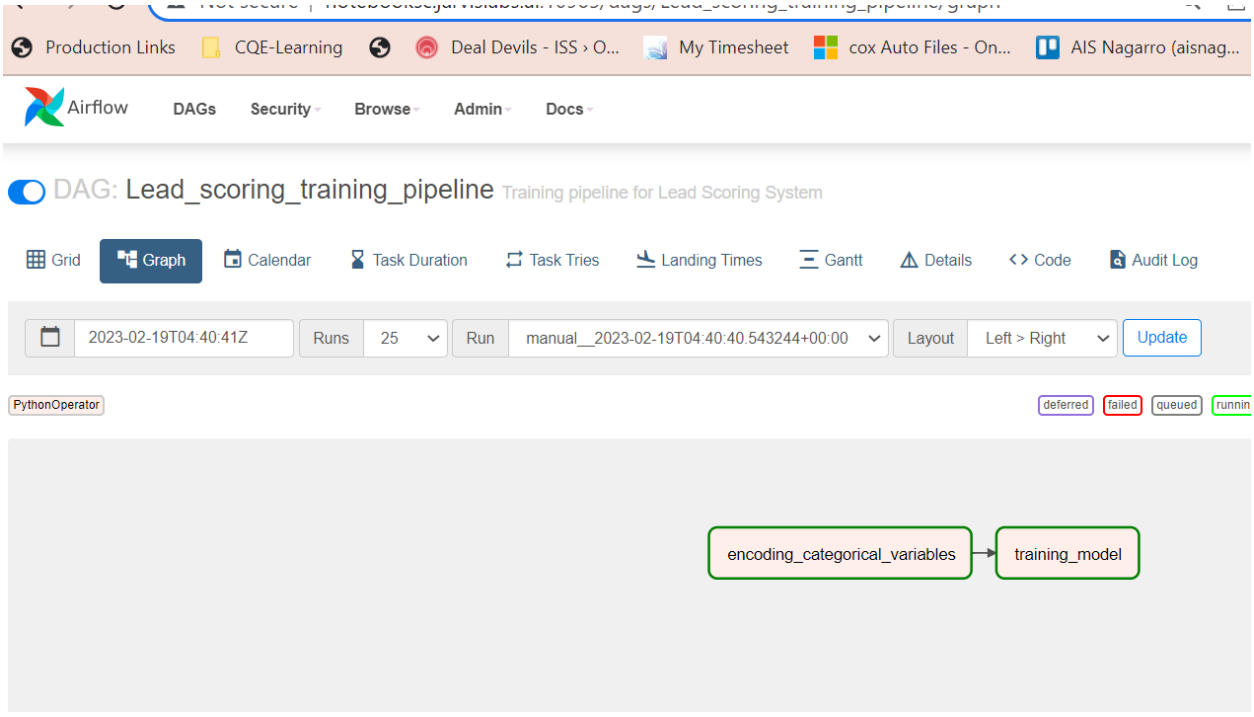
Graph View of DAGs



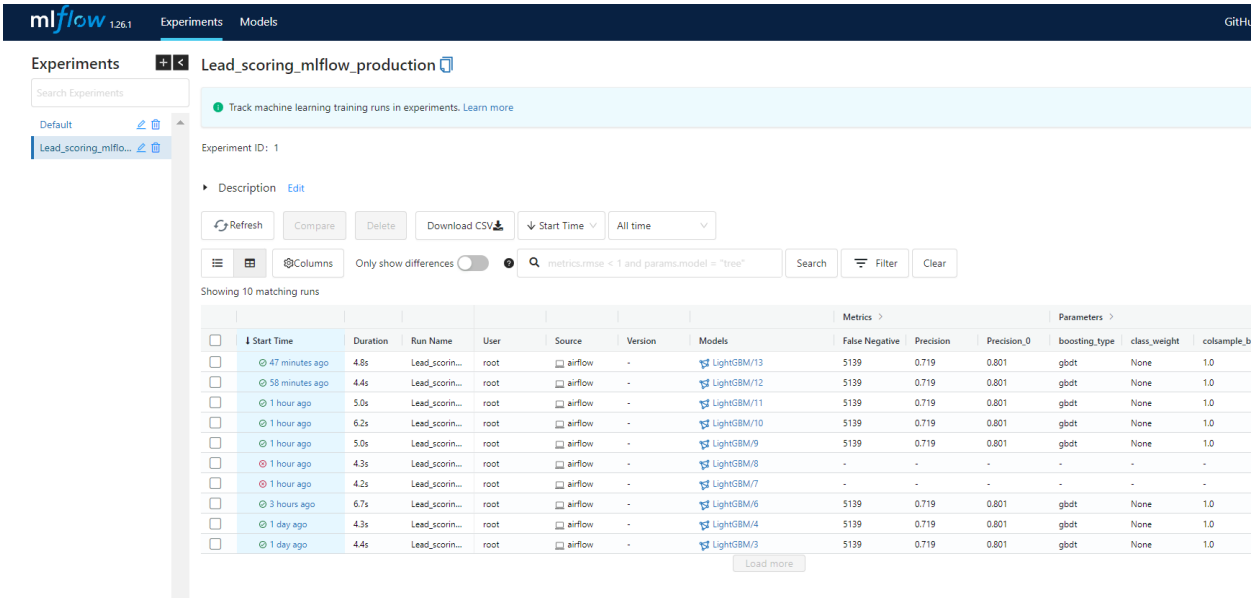
Screenshot of Data Training Pipeline



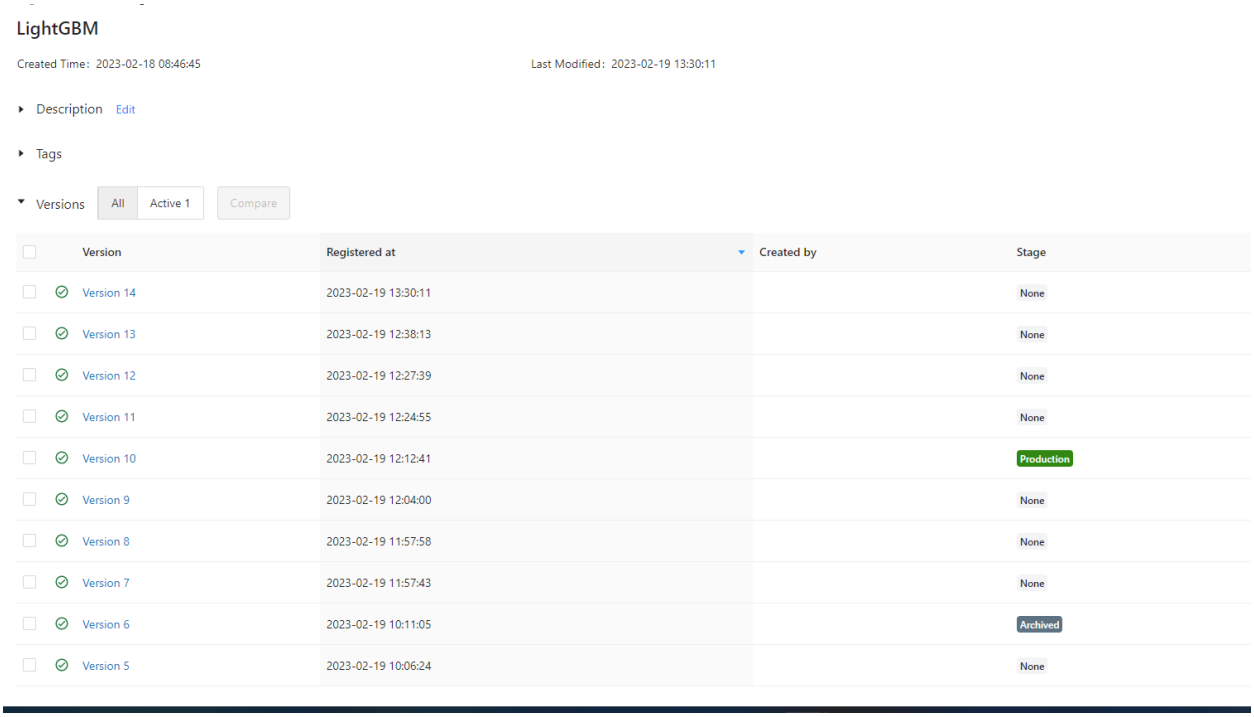
DAGs Screenshot

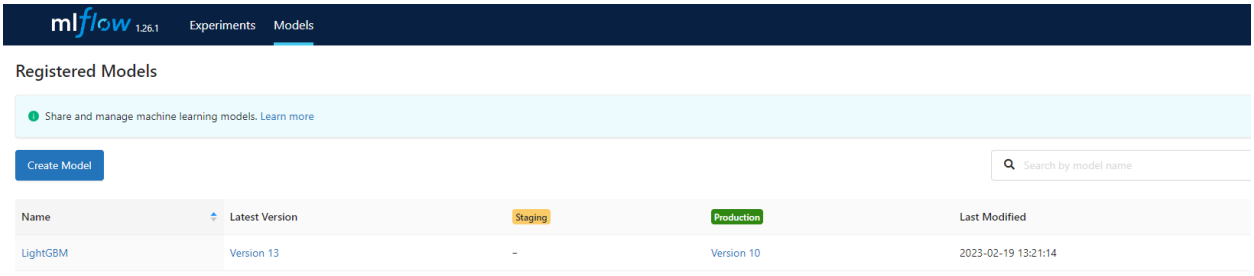


Screenshot ML Flow -Training Pipeline

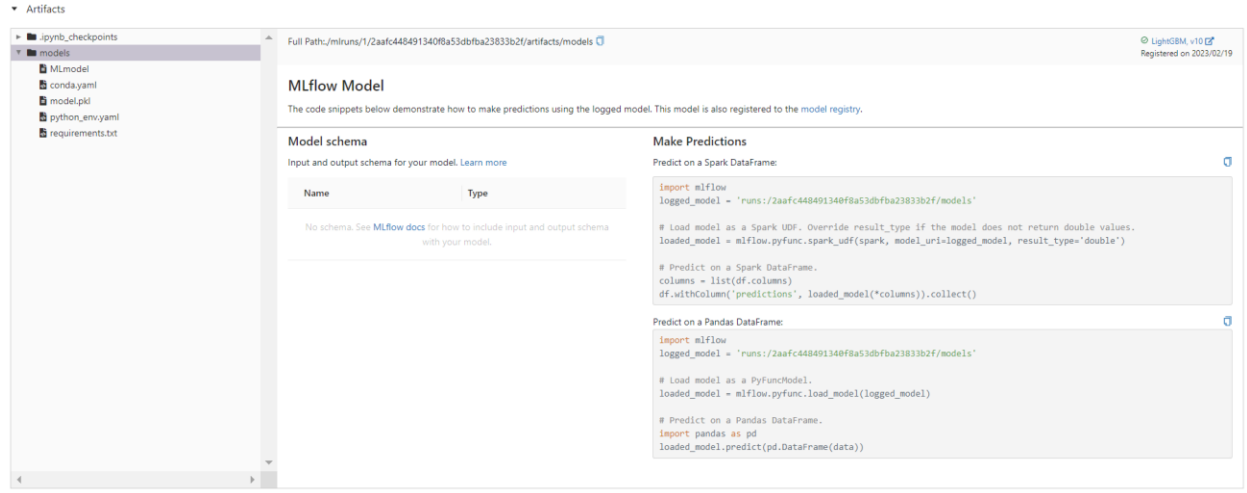


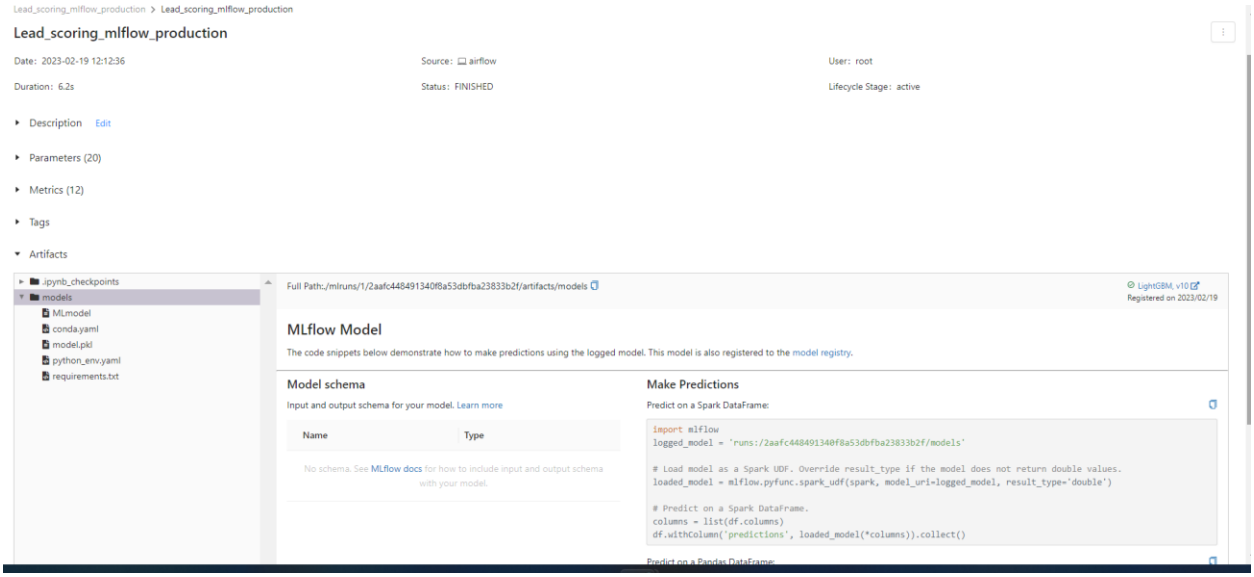
Model in Production:




mlflow 1.26.1
Experiments
Models
Registered Models
Share and manage machine learning models. Learn more
Create Model
Search by model name
Name
Latest Version
Staging
Production
Last Modified
LightGBM
Version 13
–
Version 10
2023-02-19 13:21:14

Artifacts:


Artifacts
.ipynb_checkpoints
models
MLmodel
conda.yaml
model.pkl
python_env.yaml
requirements.txt
Full Path:./mlruns/1/2aafc448491340f8a53dbfba23833b2f/artifacts/models
LightGBM, v10
Registered on 2023/02/19
MLflow Model
The code snippets below demonstrate how to make predictions using the logged model. This model is also registered to the model registry.
Model schema
Input and output schema for your model. Learn more
Name
Type
No schema. See MLflow docs for how to include input and output schema with your model.
Make Predictions
Predict on a Spark DataFrame:
import mlflow
logged_model = 'runs:/2aafc448491340f8a53dbfba23833b2f/models'
# Load model as a Spark UDF. Override result_type if the model does not return double values.
loaded_model = mlflow.pyfunc.spark_udf(spark, model_uri=logged_model, result_type='double')
# Predict on a Spark DataFrame.
columns = list(df.columns)
df.withColumn('predictions', loaded_model(*columns)).collect()
Predict on a Pandas DataFrame:
import mlflow
logged_model = 'runs:/2aafc448491340f8a53dbfba23833b2f/models'
# Load model as a PyFuncModel.
loaded_model = mlflow.pyfunc.load_model(logged_model)
# Predict on a Pandas DataFrame.
import pandas as pd
loaded_model.predict(pd.DataFrame(data))


Lead_scoring_mlflow_production > Lead_scoring_mlflow_production
Lead_scoring_mlflow_production
Date: 2023-02-19 12:12:36
Source: airflow
User: root
Duration: 6.2s
Status: FINISHED
Lifecycle Stage: active
Description
Edit
Parameters (20)
Metrics (12)
Tags
Artifacts
.ipynb_checkpoints
models
MLmodel
conda.yaml
model.pkl
python_env.yaml
requirements.txt
Full Path:./mlruns/1/2aafc448491340f8a53dbfba23833b2f/artifacts/models
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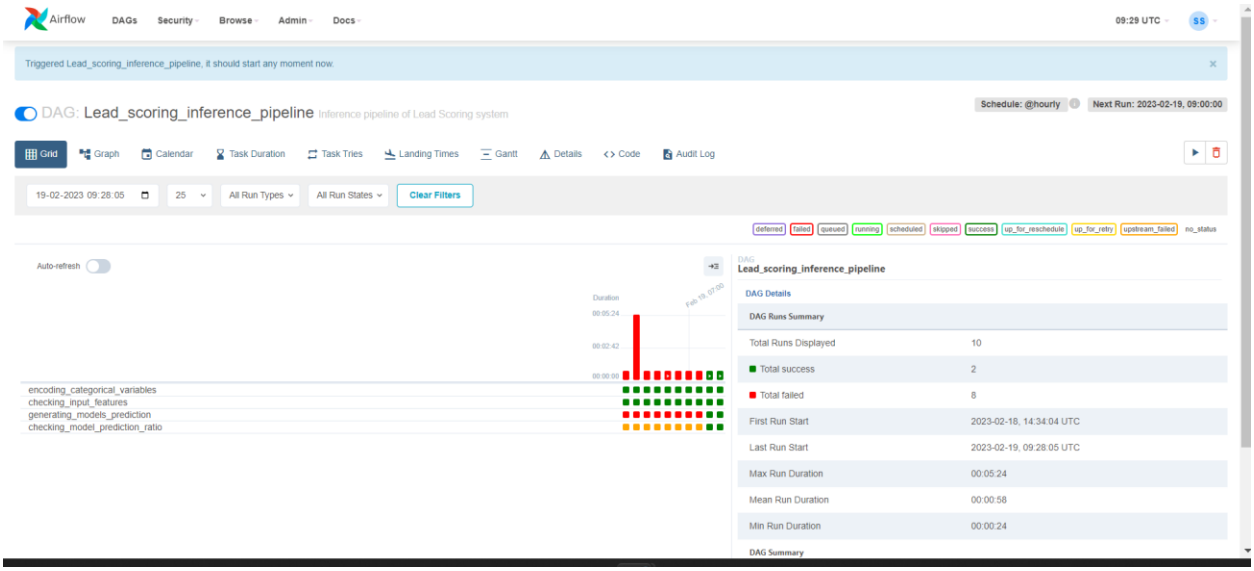
df.withColumn('predictions', loaded_model(*columns)).collect()
Predict on a Pandas DataFrame:

Model Airflow-Inference Pipeline



DAG Graph