

Model experimentation

MLFLOW UI with all experiment

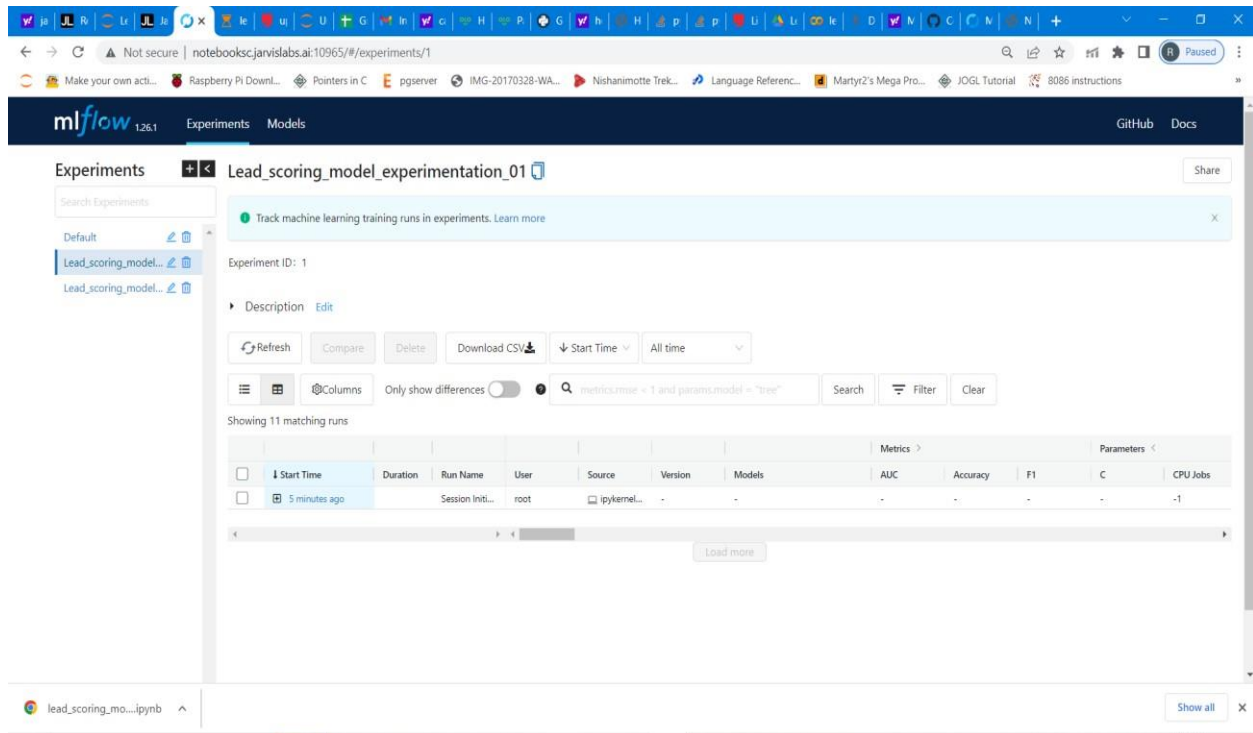


Figure 1 Model experimentation : all experiments

Artifacts of one the model experiments

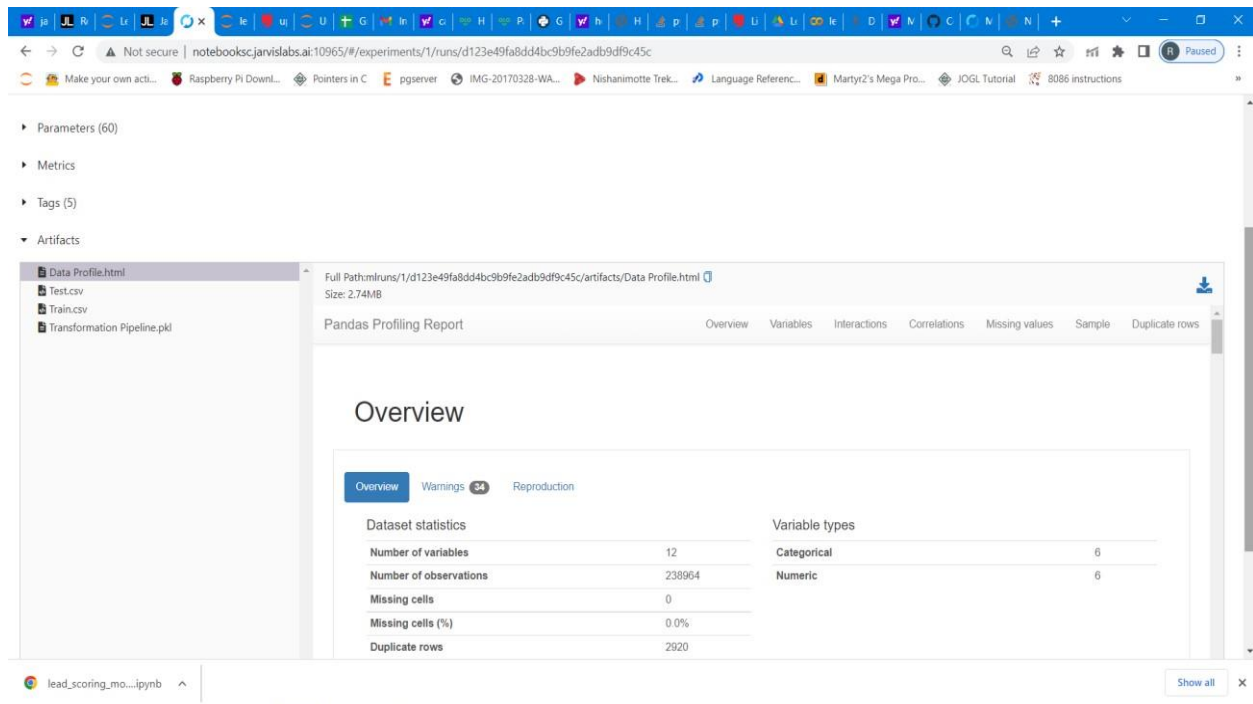


Figure 2 Model experimentation: artifacts of one experiment

Screen shot of all three DAGs

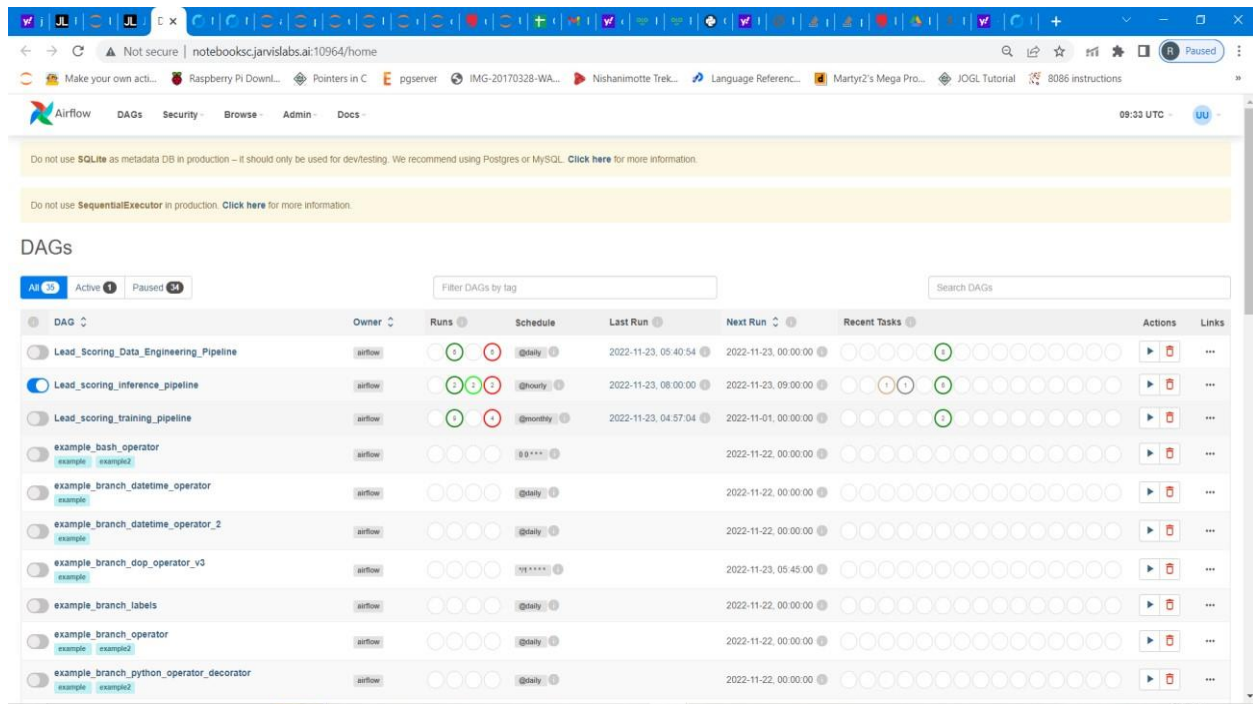


Figure 3 All DAGS in airflow UI

Training

Airflow UI Of training pipeline

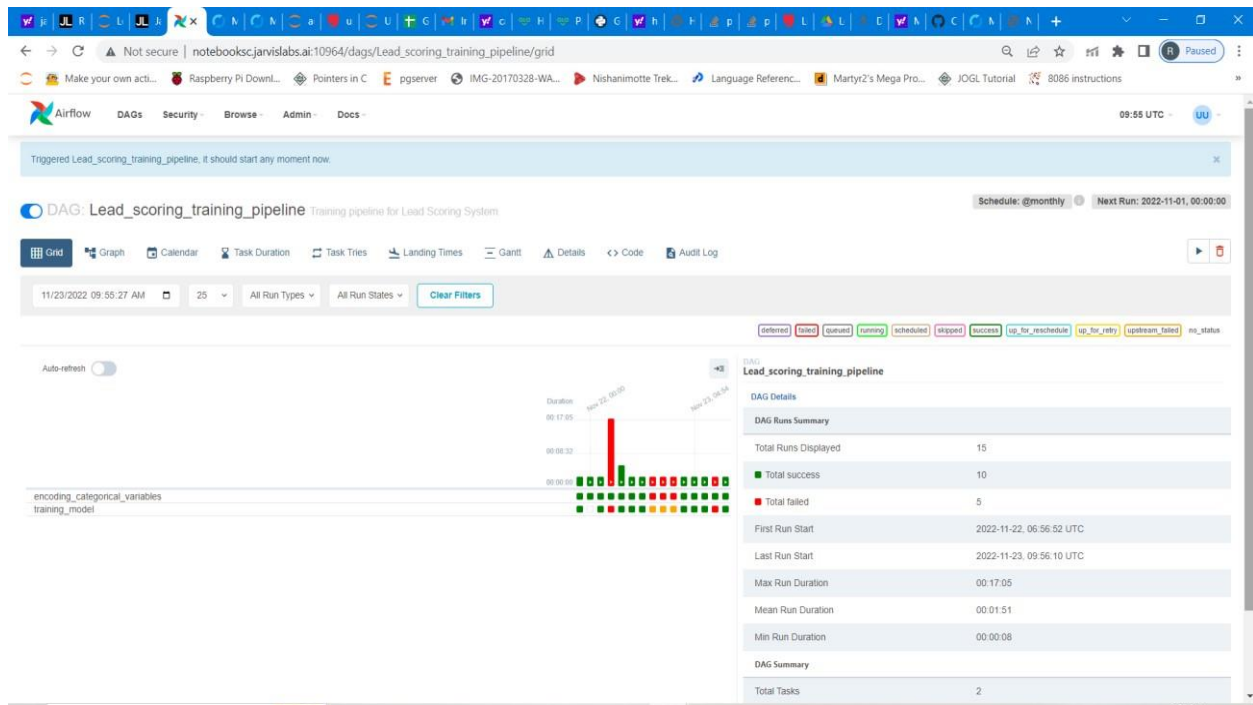


Figure 4 Airflow UI: Training pipeline DAG

Airflow UI –Graph of training pipeline

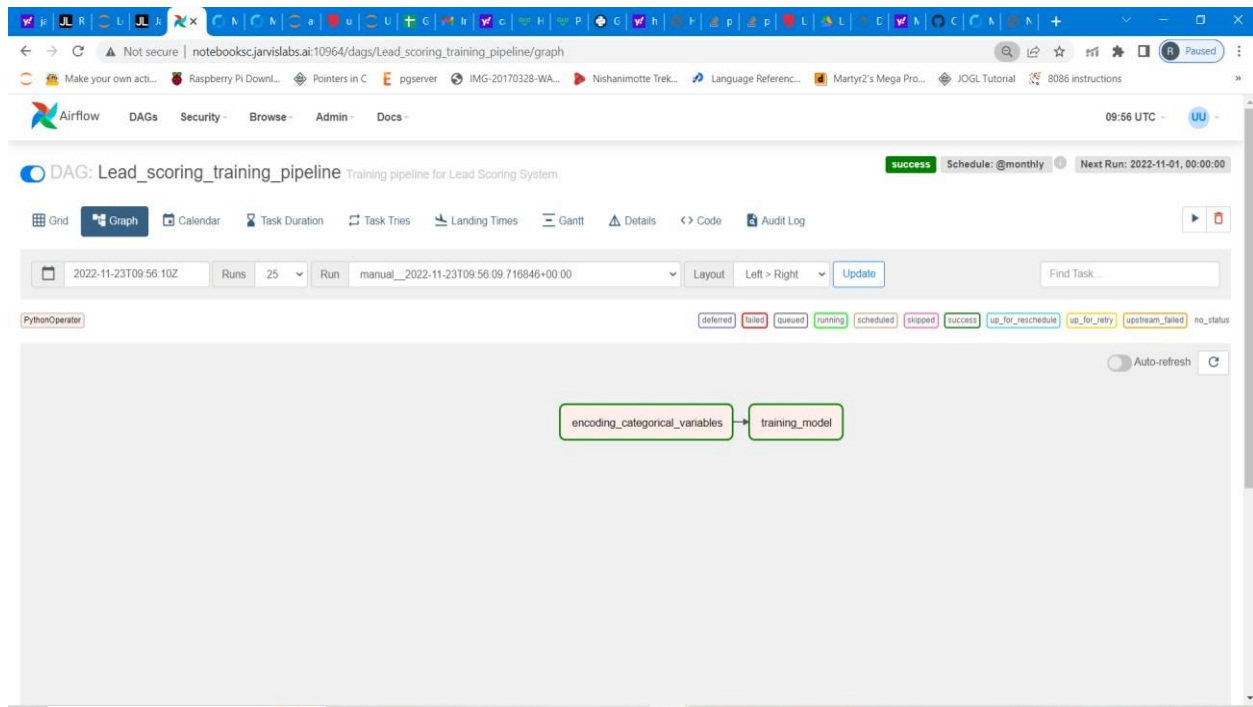
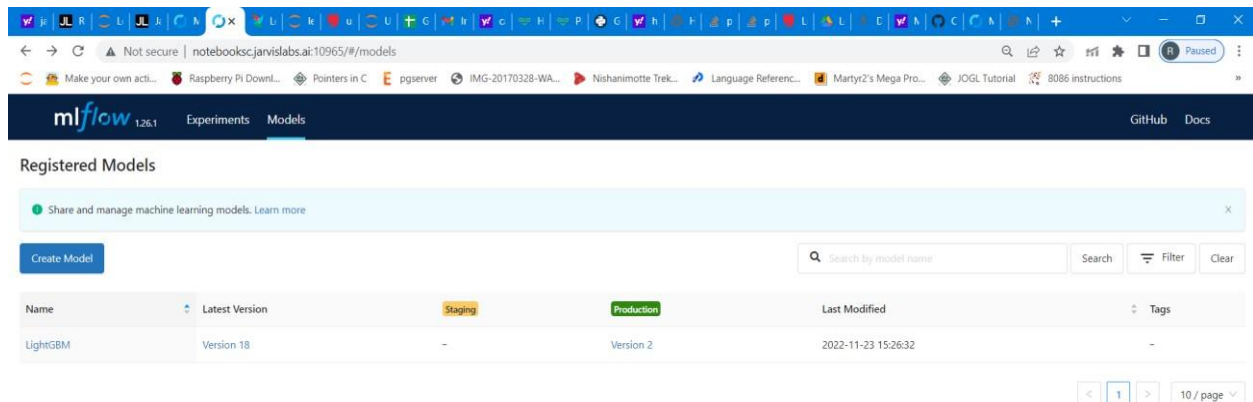


Figure 5Airflow UI: Training pipeline DAG graph

Final model with stage as production



Registered Models

Share and manage machine learning models. Learn more

Create Model

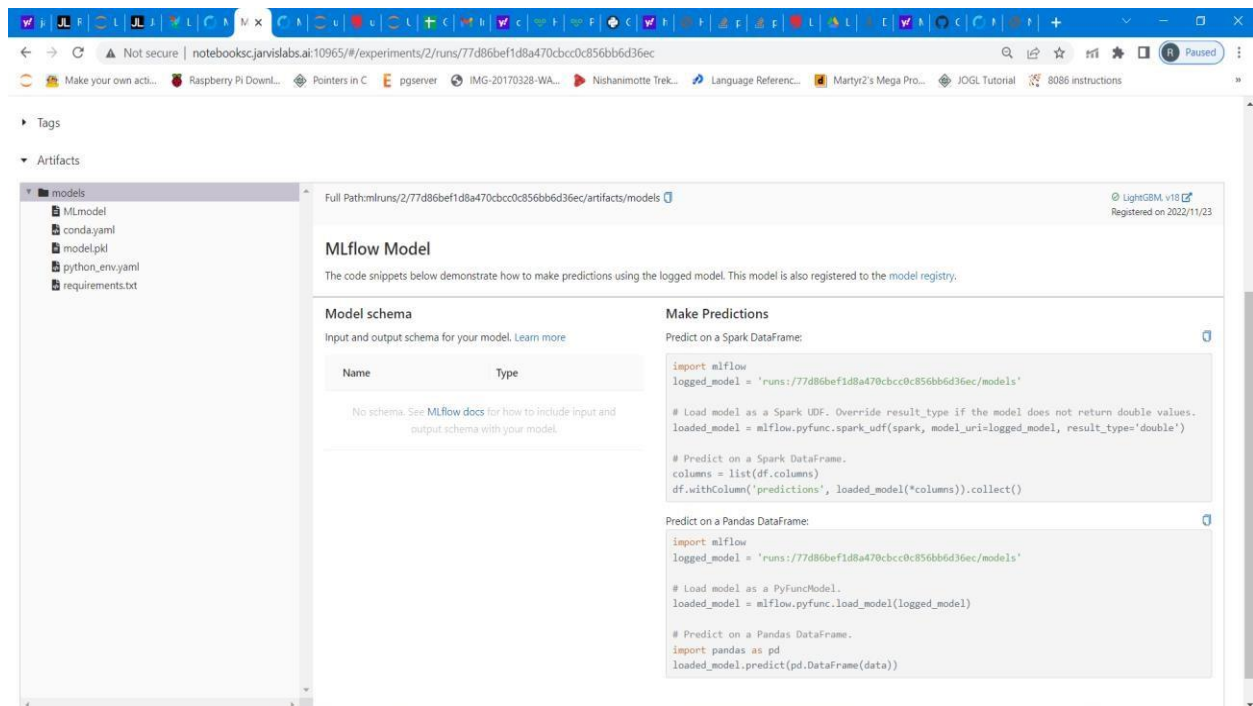
Search by model name

Name	Latest Version	Staging	Production	Last Modified	Tags
LightGBM	Version 18	-	Version 2	2022-11-23 15:26:32	-

10 / page

Figure 6 Training pipeline: final model with stage as production

Artifacts of model



Tags

Artifacts

models

- MLmodel
- conda.yaml
- model.pkl
- python_env.yaml
- requirements.txt

Full Path: mlruns/2/77d86bef1d8a470cbcc0c856bb6d36ec/artifacts/models

LightGBM, v18
Registered on 2022/11/23

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:/77d86bef1d8a470cbcc0c856bb6d36ec/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:/77d86bef1d8a470cbcc0c856bb6d36ec/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))
```

Figure 7 Training pipeline: Artifacts of the training model

Inference pipeline

Airflow UI of Inference pipeline

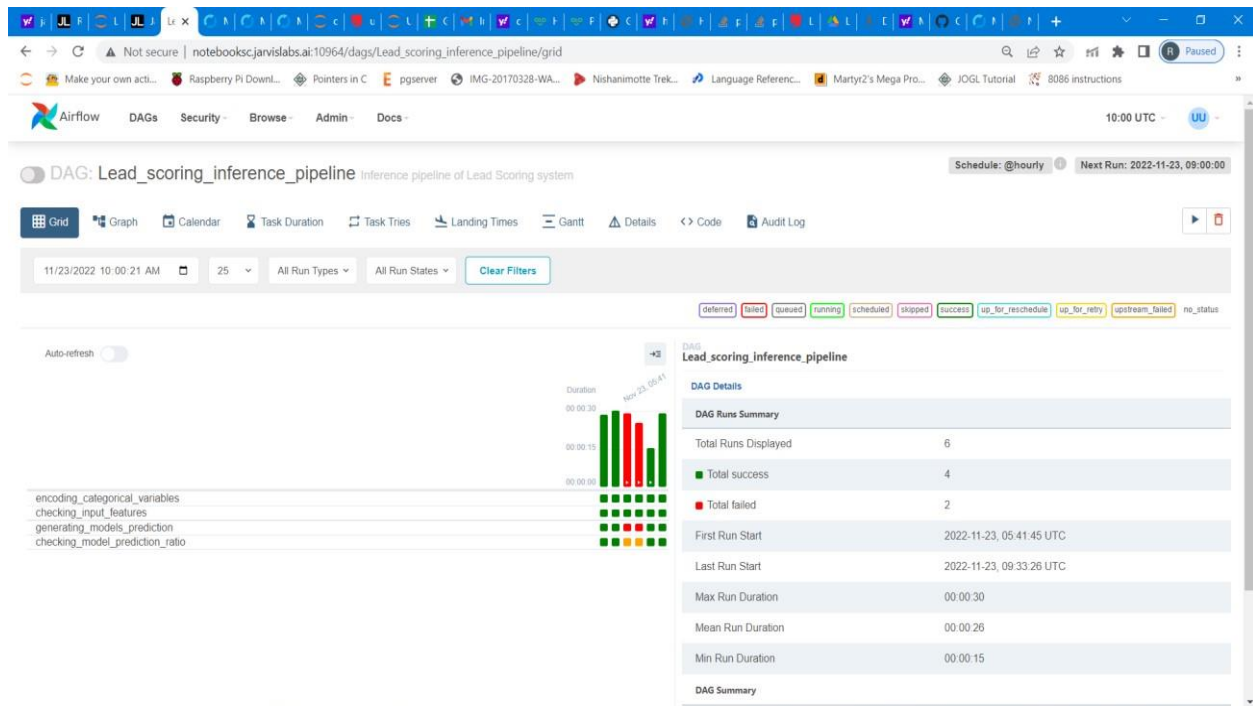


Figure 8 Airflow UI: Inference pipeline DAG

Airflow UI with graph of inference pipeline

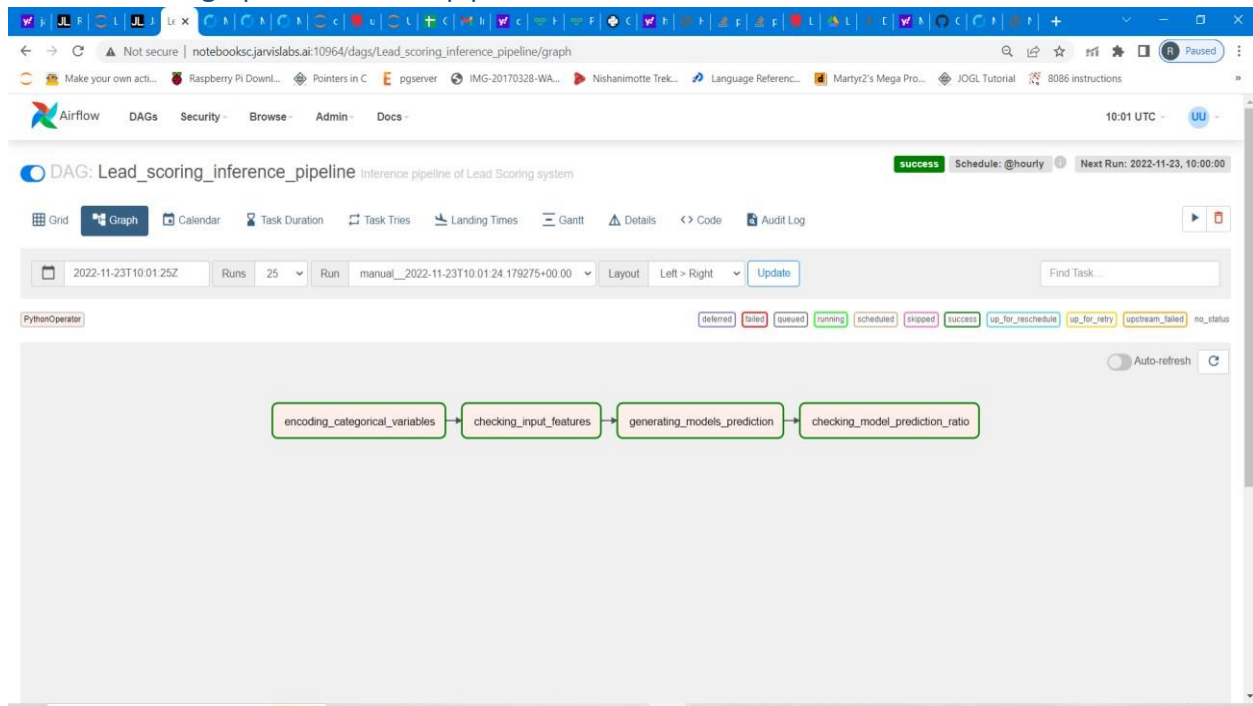


Figure 9 Airflow UI Inference pipeline Graph

Data pipeline

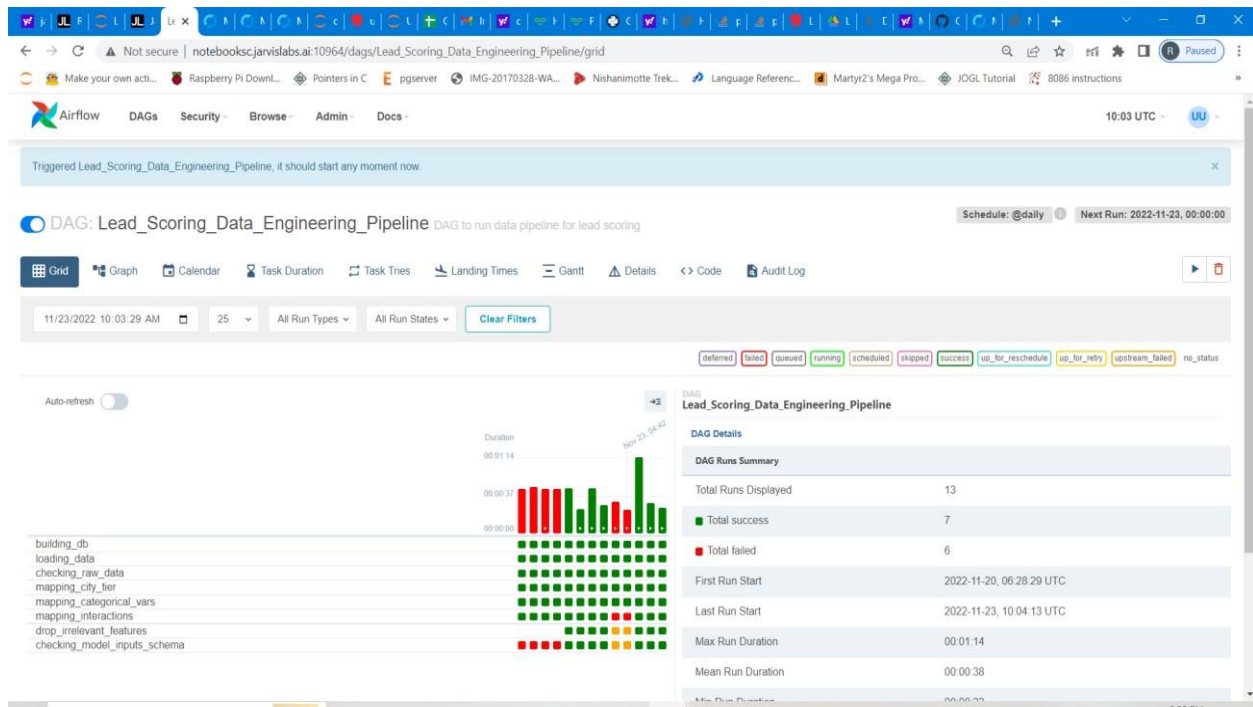


Figure 10 Airflow UI Data pipeline DAG

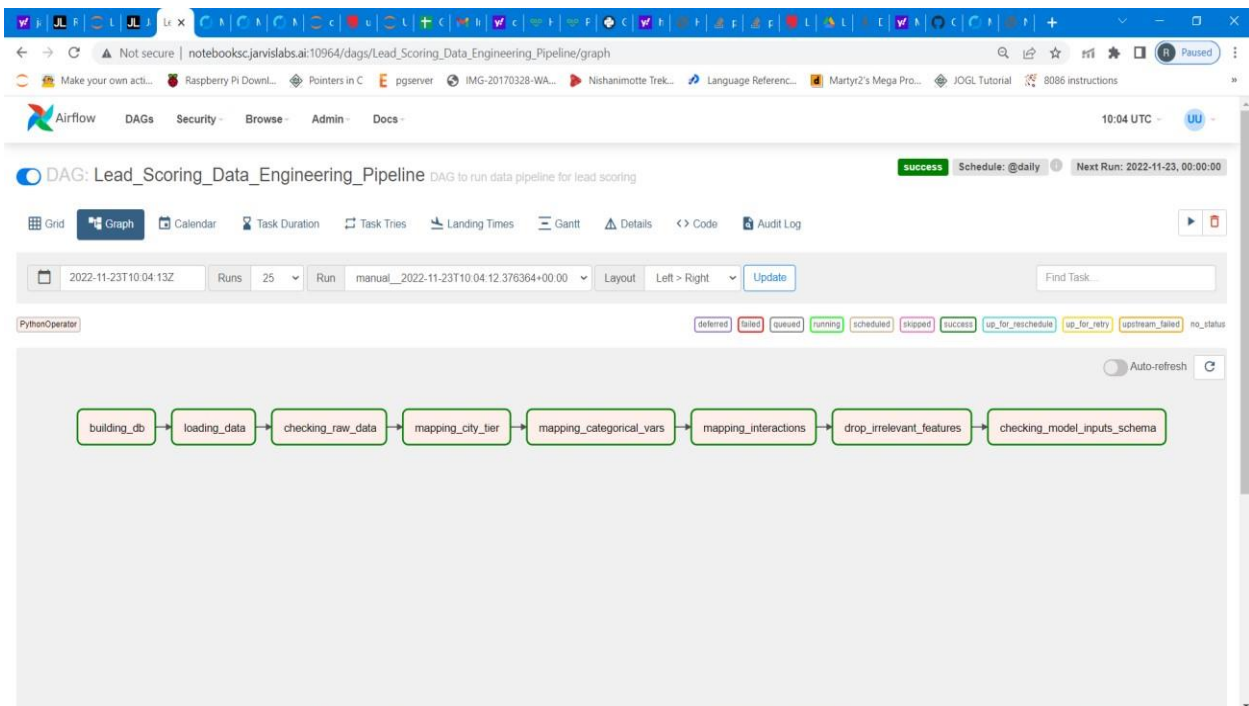


Figure 11 Airflow UI Data Pipeline Graph