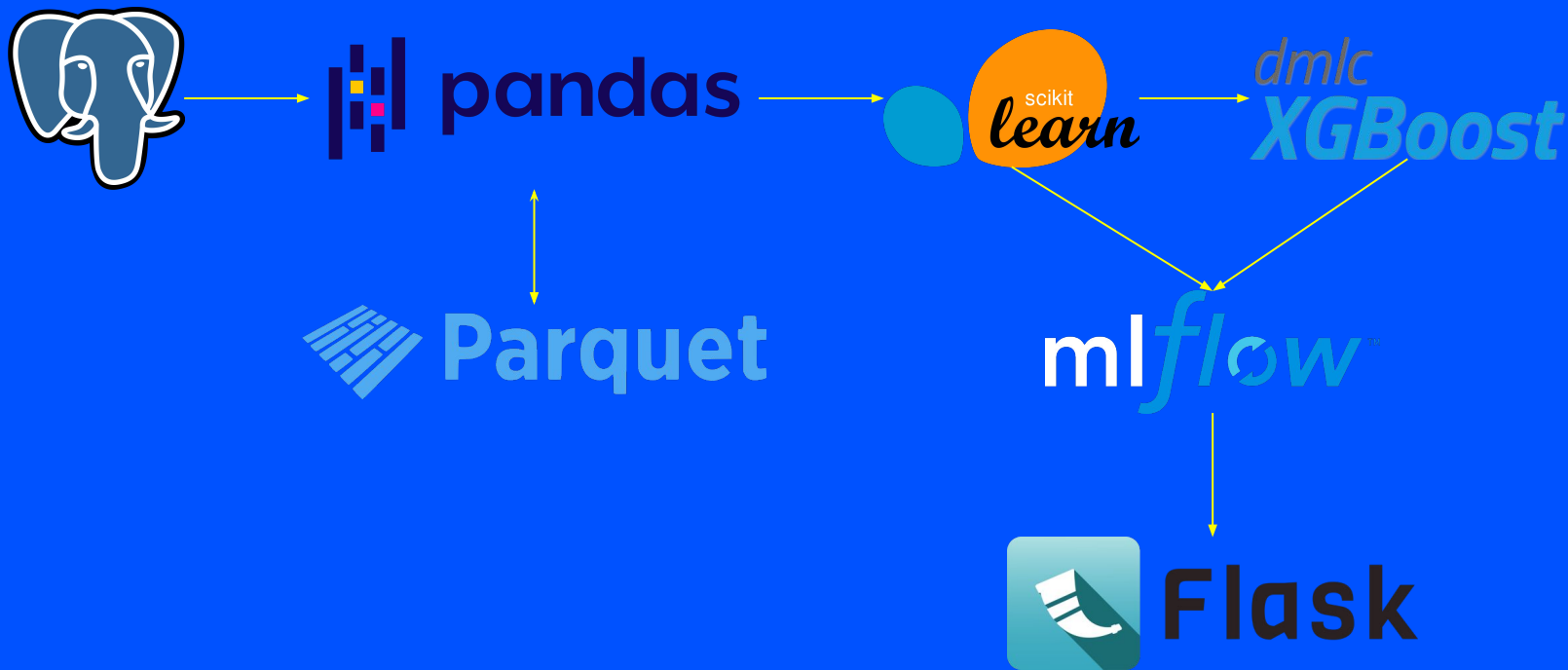


Module 3: Orchestration & ML Pipelines

3.1 Introduction to Workflow Orchestration

MLOps Workflow



MLOps Workflow





“Everything fails all the time.”

- Werner Vogels, AWS CTO

If you give an MLOps engineer a job...




- Could you just set up this pipeline to train this model?
- Could you set up logging?
- Could you do it every day?
- Could you make it retry if it fails?
- Could you send me a message when it succeeds?
- Could you visualize the dependencies?
- Could you add caching?
- Could you add collaborators to run ad hoc - who don't code?




Orchestrate & observe
your Python workflows
at scale


Prefect UI








Prefect Technologies, Inc.
prod-releases


 Flow Runs


 Flows


 Work Pools


 Blocks


 Variables


 Automations

 Task Run Concurrency

 Event Feed

 Artifacts

 Workspace Sharing

 Workspace Settings


Flow Runs / sweet-mink

✓ Completed

📅 2023/05/04 11:55:51 AM

🕒 31s

🔄 7 task runs

Flow  release-package

11:55:50 AM

11:55:55 AM

11:56:00 AM

11:56:05 AM

11:56:10 AM

11:56:15 AM

11:56:20 AM

Get directory-0

Install dependencies-0

Clone repo-0

Build / cyber-impala

Publish latest version-0

Cleanup-0

Send notifications-0

Release-0

Logs

Task Runs

Subflow Runs

Results

Artifacts

Details

Parameters

Level: all

Oldest to newest

May 4th, 2023

INFO

Created task run 'Get directory-0' for task 'Get directory'

11:55:51 AM

prefect.flow_runs

INFO

Submitted task run 'Get directory-0' for execution.

11:55:51 AM

prefect.flow_runs

INFO

Created task run 'Clone repo-0' for task 'Clone repo'

11:55:52 AM

prefect.flow_runs

INFO

Submitted task run 'Clone repo-0' for execution.

11:55:52 AM

prefect.flow_runs

INFO

Created task run 'Test 13 dependencies-0' for task 'Test 13 dependencies'

11:55:53 AM

prefect.flow_runs



Prefect provides tools for working
with complex systems
so you can stop wondering about
your workflows 🛑 🤔

● Goal for Module 3



Learn how to use Prefect to
orchestrate and observe
your ML workflows