

Figure 46-5. The Kubeflow homescreen

Note It can take 10–15 minutes for the URI to become available. Kubeflow needs to provision a signed SSL certificate and register a DNS name.

Kubeflow Pipelines – Kubeflow for Poets

Kubeflow Pipelines is a simple platform for building and deploying containerized machine learning workflows on Kubernetes. Kubeflow pipelines make it easy to implement production-grade machine learning pipelines without bothering on the low-level details of managing a Kubernetes cluster.

Kubeflow Pipelines is a core component of Kubeflow and is also deployed when Kubeflow is deployed. The Pipelines dashboard is shown in Figure 46-6.

CHAPTER 46 KUBEFLOW AND KUBEFLOW PIPELINES

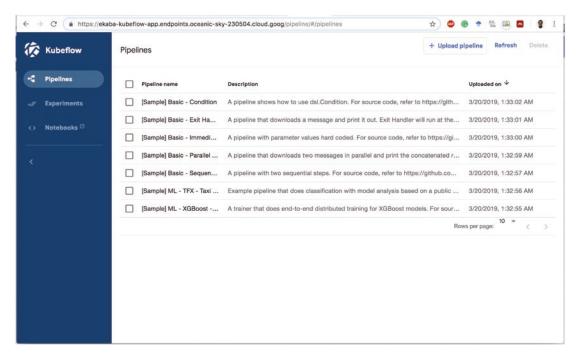


Figure 46-6. Kubeflow Pipelines dashboard

Components of Kubeflow Pipelines

A Pipeline describes a machine learning workflow, where each component of the pipeline is a self-contained set of codes that are packaged as Docker images. Each pipeline can be uploaded individually and shared on the Kubeflow Pipelines user interface (UI). A pipeline takes inputs (parameters) required to run the pipeline and the inputs and outputs of each component.

The Kubeflow Pipelines platform consists of

- A user interface (UI) for managing and tracking Experiments, jobs, and runs
- An engine for scheduling multi-step ML workflows
- An SDK for defining and manipulating pipelines and components
- Notebooks for interacting with the system using the SDK (taken from www.kubeflow.org/docs/pipelines/pipelines-overview/)