Build Containers Before Uploading to Kubeflow Pipelines

Before uploading the pipeline to Kubeflow Pipelines, be sure to build the component containers so that the latest version of the code is packaged and uploaded as images to the container registry. The code provides a handy `bash` script to build all containers.

Compile the Pipeline Using the Kubeflow Pipelines DSL Language

The pipeline code contains a specification on how the components interact with one another. Each component has an output that serves as an input to the next component in the pipeline. The Kubeflow pipeline DSL language `dsl-compile` from the Kubeflow Pipelines SDK is used to compile the pipeline code in Python for upload to Kubeflow Pipelines.

Ensure the Kubeflow Pipelines SDK is installed on the local machine by running

```
# install kubeflow pipeline sdk
pip install https://storage.googleapis.com/ml-pipeline/release/0.1.12/kfp.
tar.gz --upgrade

# verify the install
which dsl-compile
```

Compile the pipeline by running

```
# compile the pipeline
python3 [path/to/python/file.py] [path/to/output/tar.gz]
```

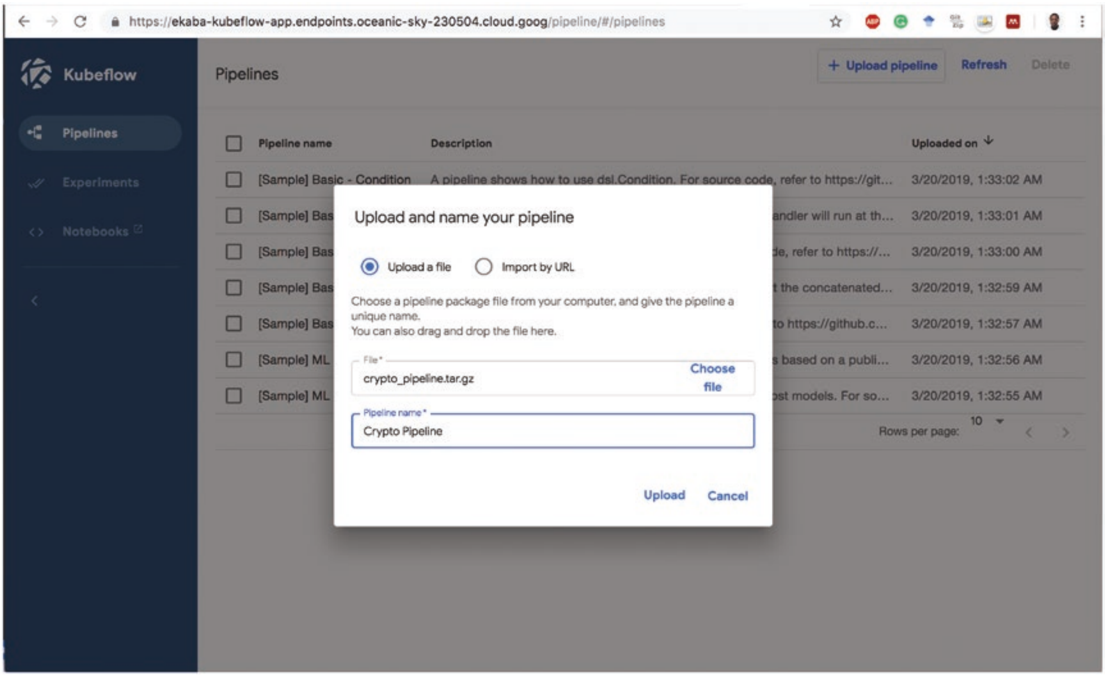
For the sample code, we used

```
python3 crypto_pipeline.py crypto_pipeline.tar.gz
```

Upload and Execute the Pipeline to Kubeflow Pipelines

The following steps upload and execute the compiled pipeline on Kubeflow Pipelines:

1. Upload the pipeline to Kubeflow Pipelines (Figure 47-1).



https://ekaba-kubeflow-app.endpoints.oceanic-sky-230504.cloud.goog/pipeline/#/pipelines

□	Pipeline name	Description	Uploaded on ↓
□	[Sample] Basic - Condition	A pipeline shows how to use dsl.Condition. For source code, refer to https://git...	3/20/2019, 1:33:02 AM
□	[Sample] Bas	andler will run at th...	3/20/2019, 1:33:01 AM
□	[Sample] Bas	de, refer to https://...	3/20/2019, 1:33:00 AM
□	[Sample] Bas	t the concatenated...	3/20/2019, 1:32:59 AM
□	[Sample] Bas	to https://github.c...	3/20/2019, 1:32:57 AM
□	[Sample] ML	s based on a publi...	3/20/2019, 1:32:56 AM
□	[Sample] ML	ost models. For so...	3/20/2019, 1:32:55 AM

Upload and name your pipeline

● Upload a file ○ Import by URL

Choose a pipeline package file from your computer, and give the pipeline a unique name.
You can also drag and drop the file here.

File*: crypto_pipeline.tar.gz — Choose file

Pipeline name*: Crypto Pipeline

Upload Cancel

Figure 47-1. *Upload the compiled pipeline to Kubeflow Pipelines*