

Kubeflow Install Using Kustomize

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Installation

Install Kustomize

On Mac:

```
> curl -s "https://raw.githubusercontent.com/kubernetes-sigs/kustomize/master/hack/install_kustomize.sh" | bash
> mv kustomize ~/bin
```

In Windows

```
> bash
>
```

Install Kubeflow

```
> git clone https://github.com/kubeflow/manifests.git
```

```
> cd manifests
```

```
> while ! kustomize build example | kubectl apply -f -; do echo "Retrying to apply resources"; sleep 10; done
```

```
validatingwebhookconfiguration.admissionregistration.k8s.io/inferenceservice.serving.kubeflow.org configured
validatingwebhookconfiguration.admissionregistration.k8s.io/istiod-istio-system configured
validatingwebhookconfiguration.admissionregistration.k8s.io/trainedmodel.serving.kubeflow.org configured
validatingwebhookconfiguration.admissionregistration.k8s.io/validation.webhook.eventing.knative.dev unchanged
validatingwebhookconfiguration.admissionregistration.k8s.io/validation.webhook.serving.knative.dev unchanged
Error from server (InternalError): error when creating "STDIN": Internal error occurred: failed calling webhook
"webhook.cert-manager.io": the server is currently unable to handle the request
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Retrying to apply resources
```

This will take a while....

Once installation is complete, you should see the pods started

```
> kubectl -n kubeflow get pods
```

NAME	READY	STATUS	RESTARTS	AGE
admission-webhook-deployment-65dcd649d8-7hng5	0/1	ContainerCreating	0	7m50s
cache-deployer-deployment-6b78494889-16q58	1/1	Running	0	7m50s
cache-server-c4f786b44-989xt	0/1	ContainerCreating	0	7m50s
centraldashboard-6b5fb79878-694db	1/1	Running	0	7m50s
jupyter-web-app-deployment-894f79f74-tdlpk	1/1	Running	0	7m49s
katib-controller-79f44b76bb-glvpk	0/1	ContainerCreating	0	7m49s
katib-db-manager-6d9857f658-z66sw	0/1	CrashLoopBackOff	1	7m48s
katib-mysql-586f79b694-hwvpl	1/1	Running	0	7m48s
katib-ui-5fdb7869cf-wzgg9	1/1	Running	0	7m47s
kfserving-controller-manager-0	0/2	Pending	0	7m30s
kubeflow-pipelines-profile-controller-596b896f8d-bgqcv	0/1	ContainerCreating	0	7m47s
metacontroller-0	0/1	Pending	0	7m30s
metadata-envoy-deployment-6756c995c9-xpx4m	1/1	Running	0	7m46s
metadata-grpc-deployment-7cb87744c7-cjml4	0/1	ContainerCreating	0	7m45s
metadata-writer-6bf5cfd7d8-dz5gw	0/1	ContainerCreating	0	7m45s
minio-5b65df66c9-zgphs	0/1	ContainerCreating	0	7m45s
ml-pipeline-6fd798d69b-9rdzs	0/1	ContainerCreating	0	7m44s
ml-pipeline-persistenceagent-78756bc86-5mbcp	1/1	Running	0	7m43s
ml-pipeline-scheduledworkflow-5965c4ddd5-7h48v	0/1	ContainerCreating	0	7m42s
ml-pipeline-ui-7449d86fdb-4mdkt	0/1	ContainerCreating	0	7m42s
ml-pipeline-viewer-crd-7b6f548696-xn8wp	0/1	ContainerCreating	0	7m42s
ml-pipeline-visualizationserver-64778c88f5-st9tg	0/1	Pending	0	7m40s
mpi-operator-d5bfb8489-wpjdf	0/1	ContainerCreating	0	7m40s
mxnet-operator-6cffc568b7-5sw9z	0/1	ContainerCreating	0	7m38s
mysql-f7b9b7dd4-7wn84	0/1	Pending	0	7m37s
notebook-controller-deployment-55f879c64c-8h25s	0/1	ContainerCreating	0	7m37s
profiles-deployment-755b68f765-cztxx	0/2	ContainerCreating	0	7m37s
pytorch-operator-56bffbbd86-xxcjk	0/1	ContainerCreating	0	7m36s
tensorboard-controller-controller-manager-64bb74f4bb-8tmlb	0/2	Pending	0	7m35s
tensorboards-web-app-deployment-5479bdb7d-7md5t	0/1	ContainerCreating	0	7m34s
tf-job-operator-859885c8c4-bzmmg	0/1	ContainerCreating	0	7m33s
volumes-web-app-deployment-6cc4dd9df9-q24tt	0/1	ContainerCreating	0	7m32s
workflow-controller-7b44676dff-5wqvz	0/1	Pending	0	7m32s
xgboost-operator-deployment-c6ddb584-g5w9q	0/1	ContainerCreating	0	7m31s

Ensure Istio is up and running

> kubectl -n istio-system get pods

NAME	READY	STATUS	RESTARTS	AGE
authservice-0	1/1	Running	0	24m
cluster-local-gateway-7c6b74977c-bvbpt	0/1	ContainerCreating	0	24m
istio-ingressgateway-56d9b7fdb-trg8h	0/1	ContainerCreating	0	24m
istiod-7486c5469f-qwxsg	0/1	ContainerCreating	0	24m

Enable port forwarding

> kubectl port-forward -n istio-system svc/istio-ingressgateway 8080:80

References

Reference	URL
Installation	https://github.com/kubeflow/manifests#installation
*** Installation on minikube	https://towardsdatascience.com/kubeflow-how-to-install-and-launch-kubeflow-on-your-local-machine-e0d7b4f7508f
Components	https://www.kubeflow.org/docs/components/
Central Dashboard	https://www.kubeflow.org/docs/components/central-dash/overview/