



Kubeflow Development Environment

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Development environment



- No specifically required OS
 - Linux, MacOS, Windows, etc.
- Source code version control and repository
 - Git and github
- Container image
 - Docker engine
- Languages
 - golang
 - python
- IDE
- Unit tests
- Run/Debug
 - Deployment environment

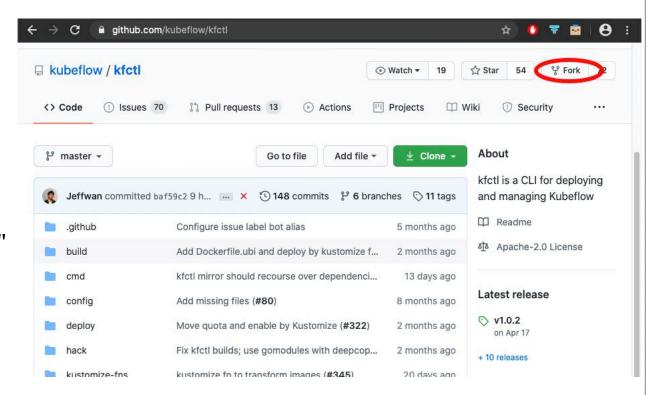


IBM

Git and github



- Install git
 - Follow the instruction
 - On MacOS, run `brew install git`
- Access to github.com
 - Github documentation
 - Create github id if not yet
- Set up git
 - git config --global user.name "github id"
 - git config --global user.email "email"
- Fork a repo
- Clone the forked repo and add upstream
 - mkdir \$HOME/go/src/github.com/kubeflow
 - cd \$HOME/go/src/github.com/kubeflow
 - git clone https://github.com/adrian555/kfctl.git
 - cd kfctl
 - git remote add upstream https://github.com/kubeflow/kfctl.git







Docker engine



- Install Docker
 - Follow the <u>link</u>
 - On MacOS, Docker Desktop will be installed. If necessary, change the resource configuration.
- Access to container registry
 - For dockerhub, follow the <u>link</u> to create an account
 - For quay.io, follow the <u>link</u> to sign up
 - Others, such as gcr.io or your organization's own
- Build and push a container image
 - Dockerfile
 - docker build -t <registry>/<org>/<image>:<tag>
 - docker push <registry>/<org>/<image>:<tag>





Languages and IDE



- Install Go Tools
 - Follow the <u>instructions</u>
 - On MacOS, run `brew install go`
- Set up GOPATH env
 - export GOPATH=\$HOME/go
- Install Python with Miniconda3
 - Follow the <u>instructions</u>
 - Create an env, run `conda create -n myenv`
- Install your favorite IDE
 - For Visual Studio Code, follow this <u>link</u>
 - Install extensions: Go, Python, YAML



Cluster



- Minikube
 - Good for local testing, run on VM or laptop
 - Follow the <u>instructions</u>
 - For MacOS, more info is covered in this <u>document</u>
- Cloud cluster
 - For IBM Cloud Kubernetes clusters, follow this <u>link</u> to provision. Details will be covered in the hands on session.
 - Others, such as AWS, GCP, etc.



Demo



- Code and unit test with VSC
- Run and debug

