

## **Demo: Demo on configuring Jenkins pipeline plugin**

**Problem statement: To deploy JAVA application with Jenkins X and GKE**

### **Solution:**

**Step 1:** Use jx boot from jx CLI. (Ensure you are using helm version 2)

Prerequisite: Configure tiller for the cluster

```
kubectl create serviceaccount --namespace kube-system tiller
```

```
kubectl create clusterrolebinding tiller-cluster-rule --clusterrole=cluster-admin --serviceaccount=kube-system:tiller
```

```
kubectl patch deploy --namespace kube-system tiller-deploy -p  
'{"spec":{"template":{"spec":{"serviceAccount":"tiller"}}}}'
```

```
helm init --service-account tiller --upgrade
```

Commands to run:

```
git clone https://github.com/jenkins-x/jenkins-x-boot-config.git
```

[You need to clone below repository to work with jx boot]

```
cd jenkins-x-boot-config/
```

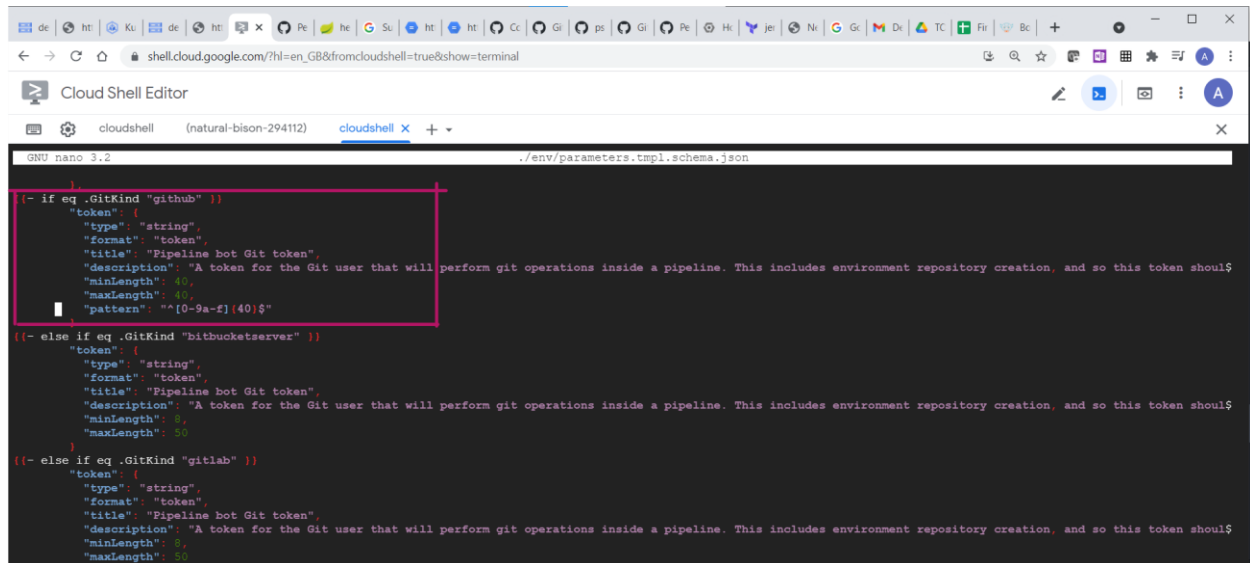
Please update pattern in parmas.json file

Commands to run:

[go to git repository for Jenkins-x-boot-config]

```
nano ./env/parameters.tmpl.schema.json
```

## CICD using Jenkins X – Part 1



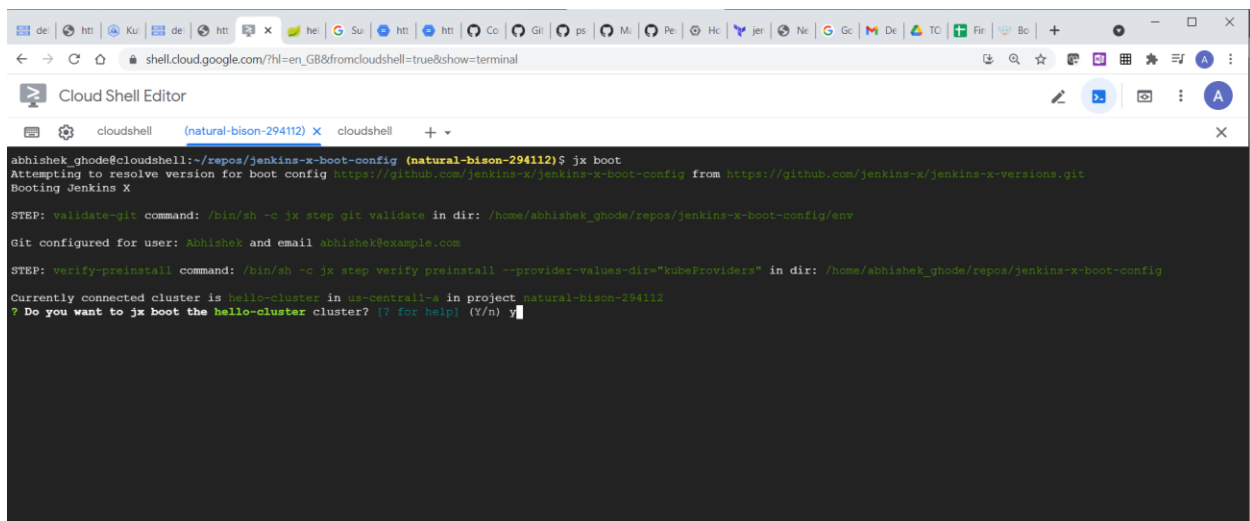
```
GNU nano 3.2 ./env/parameters.tpl.schema.json
[
  {
    "type": "string",
    "format": "token",
    "title": "Pipeline bot Git token",
    "description": "A token for the Git user that will perform git operations inside a pipeline. This includes environment repository creation, and so this token should$
    "minLength": 40,
    "maxLength": 40,
    "pattern": "^[0-9a-f]{40}$"
  },
  {
    "type": "string",
    "format": "token",
    "title": "Pipeline bot Git token",
    "description": "A token for the Git user that will perform git operations inside a pipeline. This includes environment repository creation, and so this token should$
    "minLength": 8,
    "maxLength": 50
  },
  {
    "type": "string",
    "format": "token",
    "title": "Pipeline bot Git token",
    "description": "A token for the Git user that will perform git operations inside a pipeline. This includes environment repository creation, and so this token should$
    "minLength": 8,
    "maxLength": 50
  }
]
```

Instead of: "pattern": "^[0-9a-f]{40}\$"

Use: "pattern": "^[0-9a-zA-Z\_]{40}\$"

Step 2: Configure jx boot now.

jx boot



```
abhishek_ghode@cloudshell:~/repos/jenkins-x-boot-config (natural-bison-294112)$ jx boot
Attempting to resolve version for boot config https://github.com/jenkins-x/jenkins-x-boot-config from https://github.com/jenkins-x/jenkins-x-versions.git
Booting Jenkins X

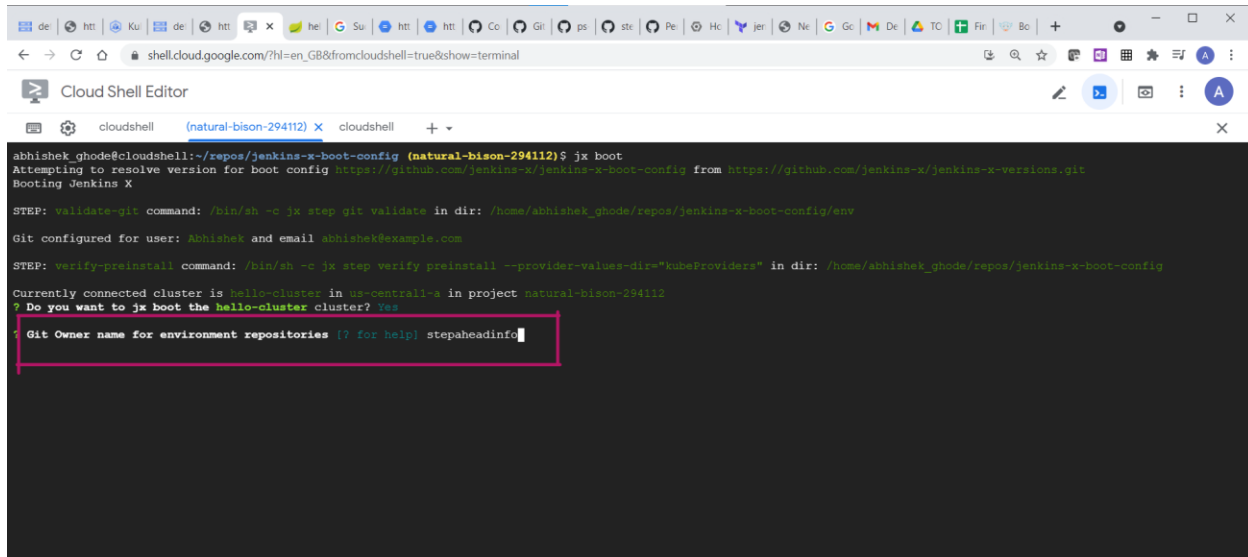
STEP: validate-git command: /bin/sh -c jx step git validate in dir: /home/abhishek_ghode/repos/jenkins-x-boot-config/env
Git configured for user: Abhishek and email abhishek@example.com

STEP: verify-preinstall command: /bin/sh -c jx step verify preinstall --provider-values-dir="kubeProviders" in dir: /home/abhishek_ghode/repos/jenkins-x-boot-config

Currently connected cluster is hello-cluster in ns-central-1-a in project natural-bison-294112
? Do you want to jx boot the hello-cluster cluster? (? for help) (Y/n) y
```

git owner is the name of organization that you have created in your GitHub account.

## CICD using Jenkins X – Part 1



The screenshot shows a Cloud Shell Editor window with a terminal session. The user is running the 'jx boot' command. The terminal output shows the following steps:

```
abhishek_ghode@cloudshell:~/repos/jenkins-x-boot-config (natural-bison-294112)$ jx boot
Attempting to resolve version for boot config https://github.com/jenkins-x/jenkins-x-boot-config from https://github.com/jenkins-x/jenkins-x-versions.git
Booting Jenkins X

STEP: validate-git command: /bin/sh -c jx step git validate in dir: /home/abhishek_ghode/repos/jenkins-x-boot-config/env
Git configured for user: Abhishek and email abhishek@example.com

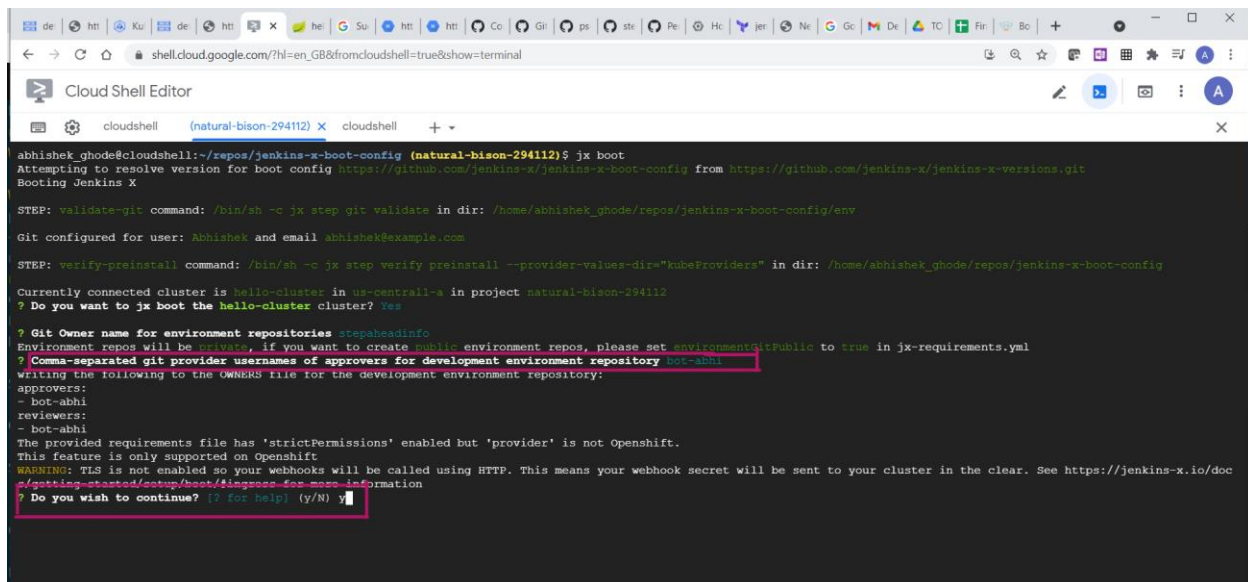
STEP: verify-preinstall command: /bin/sh -c jx step verify preinstall --provider-values-dir="kubeProviders" in dir: /home/abhishek_ghode/repos/jenkins-x-boot-config

Currently connected cluster is hello-cluster in ns-central1-a in project natural-bison-294112
? Do you want to jx boot the hello-cluster cluster? Yes
? Git Owner name for environment repositories (? for help) stepaheadinfo
```

The last prompt is highlighted with a red box.

Specify username as a git bot user you may have created earlier.

Tls is not enabled for webhooks. You can type 'yes' here.



The screenshot shows the continuation of the 'jx boot' command in the Cloud Shell Editor. The terminal output shows the following steps:

```
abhishek_ghode@cloudshell:~/repos/jenkins-x-boot-config (natural-bison-294112)$ jx boot
Attempting to resolve version for boot config https://github.com/jenkins-x/jenkins-x-boot-config from https://github.com/jenkins-x/jenkins-x-versions.git
Booting Jenkins X

STEP: validate-git command: /bin/sh -c jx step git validate in dir: /home/abhishek_ghode/repos/jenkins-x-boot-config/env
Git configured for user: Abhishek and email abhishek@example.com

STEP: verify-preinstall command: /bin/sh -c jx step verify preinstall --provider-values-dir="kubeProviders" in dir: /home/abhishek_ghode/repos/jenkins-x-boot-config

Currently connected cluster is hello-cluster in ns-central1-a in project natural-bison-294112
? Do you want to jx boot the hello-cluster cluster? Yes
? Git Owner name for environment repositories stepaheadinfo
Environment repos will be private, if you want to create public environment repos, please set environmentGitPublic to true in jx-requirements.yml
? Comma-separated git provider usernames of approvers for development environment repository bot-abhi
writing the following to the OWNERS file for the development environment repository:
- bot-abhi
reviewers:
- bot-abhi
The provided requirements file has 'strictPermissions' enabled but 'provider' is not Openshift.
This feature is only supported on Openshift
WARNING: TLS is not enabled so your webhooks will be called using HTTP. This means your webhook secret will be sent to your cluster in the clear. See https://jenkins-x.io/doc
/gating-extended/creating-boot-timestamps-for-more-information
? Do you wish to continue? (? for help) (y/N) y
```

The last prompt is highlighted with a red box.

## CICD using Jenkins X – Part 1

```
Cloud Shell Editor

cloudshell cloudshell (natural-bison-294112) X +

Booting Jenkins X
WARNING: failed to load ConfigMap jenkins-x-docker-registry in namespace jx: failed to get configmap jenkins-x-docker-registry in namespace jx, configmaps "jenkins-x-docker-registry" not found
WARNING: failed to load ConfigMap jenkins-x-docker-registry in namespace jx: failed to get configmap jenkins-x-docker-registry in namespace jx, configmaps "jenkins-x-docker-registry" not found

STEP: validate-git command: /bin/sh -c jx step git validate in dir: /home/abhishek_gnode/jenkins-x-boot-config/env
Git configured for user: Abhishek and email abhishek@example.com

STEP: verify-preinstall command: /bin/sh -c jx step verify preinstall --provider-values-dir="kubeProviders" in dir: /home/abhishek_gnode/jenkins-x-boot-config
Currently connected cluster is hello-cluster in us-central1-a in project natural-bison-294112
? Do you want to jx boot the hello-cluster cluster? Yes

? Git Owner name for environment repositories abhishekghode
Environment repos will be private, if you want to create public environment repos, please set environmentGitPublic to true in jx-requirements.yml
? Comma-separated git provider usernames of approvers for development environment repository bot-abhi
writing the following to the OWNERS file for the development environment repository:
approvers:
- bot-abhi
reviewers:
- bot-abhi
The provided requirements file has 'strictPermissions' enabled but 'provider' is not Openshift.
This feature is only supported on Openshift
WARNING: TLS is not enabled so your webhooks will be called using HTTP. This means your webhook secret will be sent to your cluster in the clear. See https://jenkins-x.io/docs/getting-started/setup/boot/fingress for more information
? Do you wish to continue? (Y/n) Y
```

Do not upgrade jx cli.

```
Cloud Shell Editor

cloudshell (natural-bison-294112) X cloudshell +

STEP: validate-git command: /bin/sh -c jx step git validate in dir: /home/abhishek_gnode/repos/jenkins-x-boot-config/env
Git configured for user: Abhishek and email abhishek@example.com

STEP: verify-preinstall command: /bin/sh -c jx step verify preinstall --provider-values-dir="kubeProviders" in dir: /home/abhishek_gnode/repos/jenkins-x-boot-config
Currently connected cluster is hello-cluster in us-central1-a in project natural-bison-294112
? Do you want to jx boot the hello-cluster cluster? Yes

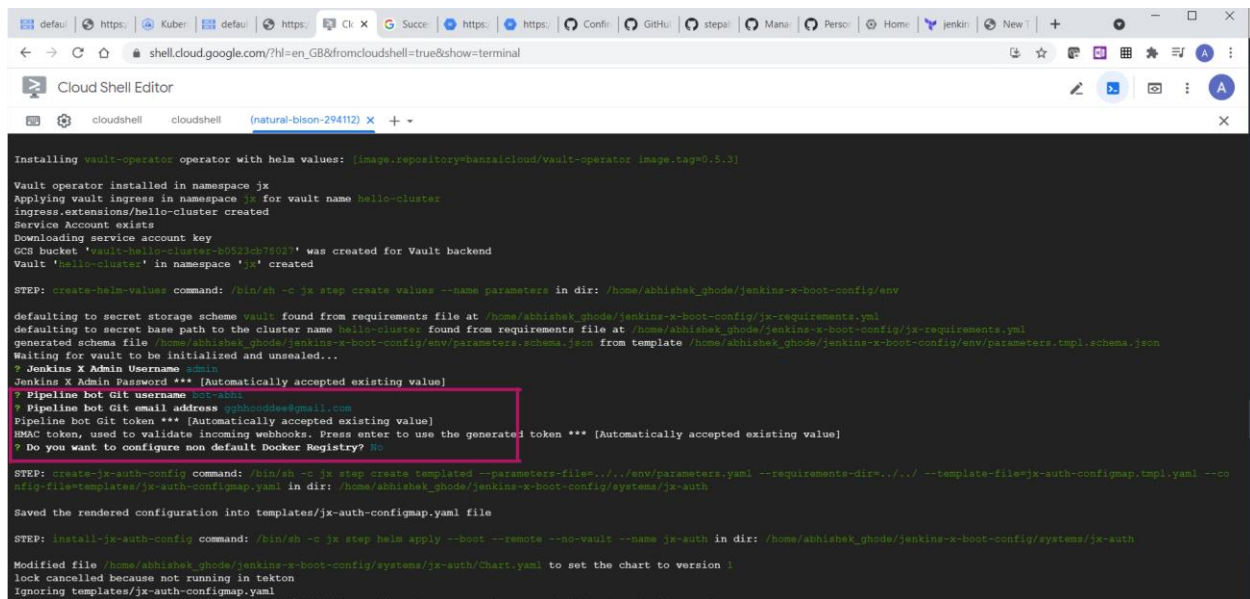
? Git Owner name for environment repositories stepaheadinfo
Environment repos will be private, if you want to create public environment repos, please set environmentGitPublic to true in jx-requirements.yml
? Comma-separated git provider usernames of approvers for development environment repository bot-abhi
writing the following to the OWNERS file for the development environment repository:
approvers:
- bot-abhi
reviewers:
- bot-abhi
The provided requirements file has 'strictPermissions' enabled but 'provider' is not Openshift.
This feature is only supported on Openshift
WARNING: TLS is not enabled so your webhooks will be called using HTTP. This means your webhook secret will be sent to your cluster in the clear. See https://jenkins-x.io/docs/getting-started/setup/boot/fingress for more information
? Do you wish to continue? Yes

Verifying the kubernetes cluster before we try to boot Jenkins X in namespace: jx
Trying to lazily create any missing resources to get the current cluster ready to boot Jenkins X
Verifying Ingress...

Using namespace 'jx' from context named 'gke_natural-bison-294112_us-central1-a_hello-cluster' on server 'https://130.211.235.87'.
Verifying the CLI packages using version stream URL: https://github.com/jenkins-x/jenkins-x-versions.git and git ref: master

WARNING: jx version specified in the version stream /home/abhishek_gnode/.jx/jenkins-x-versions is 2.1.150. You are using 2.1.50. We highly recommend you upgrade to it.
Would you like to upgrade to the jx version? (Y for help) (Y/n) Y
```

## CICD using Jenkins X – Part 1



```
Installing vault-operator operator with helm values: [image.repository=banzaicloud/vault-operator image.tag=0.5.3]
Vault operator installed in namespace jx
Applying vault ingress in namespace jx for vault name hello-cluster
ingress.extensions/hello-cluster created
Service Account exists
Downloading service account key
GCP bucket 'vault-hello-cluster-4b5214d74927' was created for Vault backend
Vault 'hello-cluster' in namespace 'jx' created

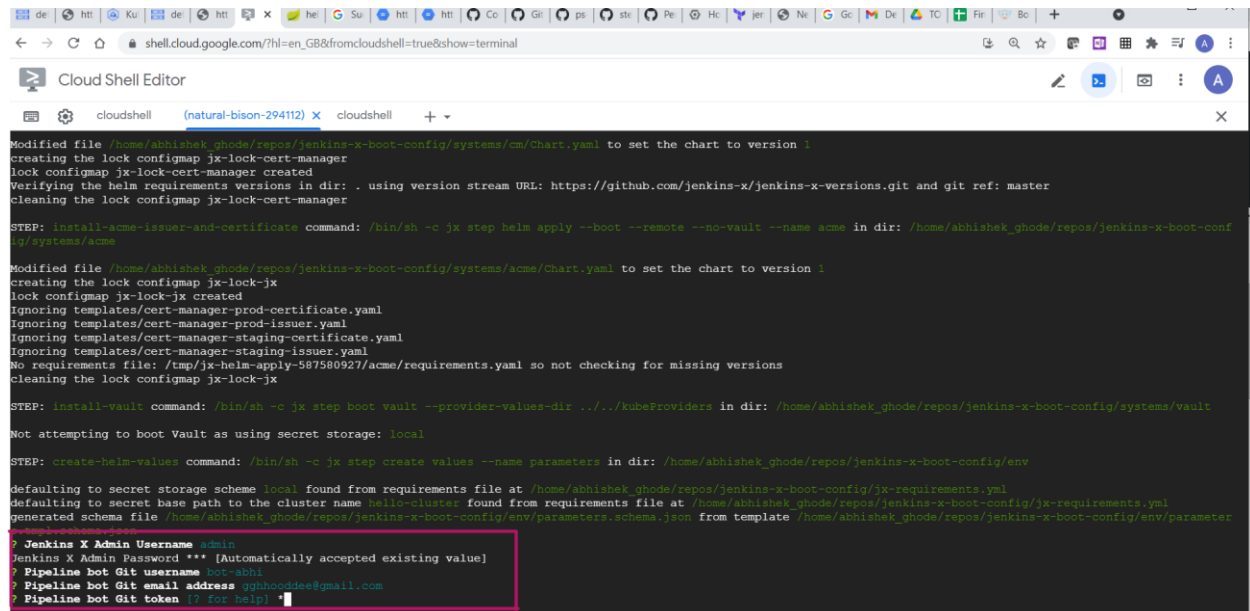
STEP: create-helm-values command: /bin/sh -c jx step create values --name parameters in dir: /home/abhishek_ghode/jenkins-x-boot-config/env
defaulting to secret storage scheme local found from requirements file at /home/abhishek_ghode/jenkins-x-boot-config/jx-requirements.yml
defaulting to secret base path to the cluster name hello-cluster found from requirements file at /home/abhishek_ghode/jenkins-x-boot-config/jx-requirements.yml
generated schema file /home/abhishek_ghode/jenkins-x-boot-config/env/parameters.schema.json from template /home/abhishek_ghode/jenkins-x-boot-config/env/parameters.tmpl.schema.json
Waiting for vault to be initialized and unsealed...
? Jenkins X Admin Username admin
Jenkins X Admin Password *** [Automatically accepted existing value]
? Pipeline bot Git username bot-admin
? Pipeline bot Git email address gghonddee@gmail.com
Pipeline bot Git token *** [Automatically accepted existing value]
HMAC token, used to validate incoming webhooks. Press enter to use the generated token *** [Automatically accepted existing value]
? Do you want to configure non default Docker Registry? No

STEP: create-jx-auth-config command: /bin/sh -c jx step create templated --parameters-file=../env/parameters.yaml --requirements-dir=../ --template-file=jx-auth-configmap.tmpl.yaml --co
fig-file=templates/jx-auth-configmap.yaml in dir: /home/abhishek_ghode/jenkins-x-boot-config/systems/jx-auth
Saved the rendered configuration into templates/jx-auth-configmap.yaml file

STEP: install-jx-auth-config command: /bin/sh -c jx step helm apply --boot --remote --no-vault --name jx-auth in dir: /home/abhishek_ghode/jenkins-x-boot-config/systems/jx-auth
Modified file /home/abhishek_ghode/jenkins-x-boot-config/systems/jx-auth/Chart.yaml to set the chart to version 1
lock cancelled because not running in tekton
Ignoring templates/jx-auth-configmap.yaml
```

Provide bot git username as a bot user for git.

For token, type '?'.  
?



```
Modified file /home/abhishek_ghode/repos/jenkins-x-boot-config/systems/cm/Chart.yaml to set the chart to version 1
creating the lock configmap jx-lock-cert-manager
lock configmap jx-lock-cert-manager created
Verifying the helm requirements versions in dir: . using version stream URL: https://github.com/jenkins-x/jenkins-x-versions.git and git ref: master
cleaning the lock configmap jx-lock-cert-manager

STEP: install-acme-issuer-and-certificate command: /bin/sh -c jx step helm apply --boot --remote --no-vault --name acme in dir: /home/abhishek_ghode/repos/jenkins-x-boot-conf
ig/systems/acme
Modified file /home/abhishek_ghode/repos/jenkins-x-boot-config/systems/acme/Chart.yaml to set the chart to version 1
creating the lock configmap jx-lock-jx
lock configmap jx-lock-jx created
Ignoring templates/cert-manager-prod-certificate.yaml
Ignoring templates/cert-manager-prod-issuer.yaml
Ignoring templates/cert-manager-staging-certificate.yaml
Ignoring templates/cert-manager-staging-issuer.yaml
No requirements file: /tmp/jx-helm-apply-587580927/acme/requirements.yaml so not checking for missing versions
cleaning the lock configmap jx-lock-jx

STEP: install-vault command: /bin/sh -c jx step boot vault --provider-values-dir ../kubernetesProviders in dir: /home/abhishek_ghode/repos/jenkins-x-boot-config/systems/vault
Not attempting to boot Vault as using secret storage: local

STEP: create-helm-values command: /bin/sh -c jx step create values --name parameters in dir: /home/abhishek_ghode/repos/jenkins-x-boot-config/env
defaulting to secret storage scheme local found from requirements file at /home/abhishek_ghode/repos/jenkins-x-boot-config/jx-requirements.yml
defaulting to secret base path to the cluster name hello-cluster found from requirements file at /home/abhishek_ghode/repos/jenkins-x-boot-config/jx-requirements.yml
generated schema file /home/abhishek_ghode/repos/jenkins-x-boot-config/env/parameters.schema.json from template /home/abhishek_ghode/repos/jenkins-x-boot-config/env/parameter
? Jenkins X Admin Username admin
Jenkins X Admin Password *** [Automatically accepted existing value]
? Pipeline bot Git username bot-admin
? Pipeline bot Git email address gghonddee@gmail.com
? Pipeline bot Git token [?] for help
```

Click on the link generated in a new tab.

Please ensure that you are creating this token for bot user. So, login using bot user credentials to github.com before generating token.

## CICD using Jenkins X – Part 1

```
Cloud Shell Editor

Verifying the helm requirements versions in dir: . using version stream URL: https://github.com/jenkins-x/jenkins-x-versions.git and git ref: master
cleaning the lock configmap jx-lock-cert-manager

STEP: install-acme-issuer-and-certificate command: /bin/sh -c jx step helm apply --boot --remote --no-vault --name acme in dir: /home/abhishek_ghode/repos/jenkins-x-boot-config/systems/acme

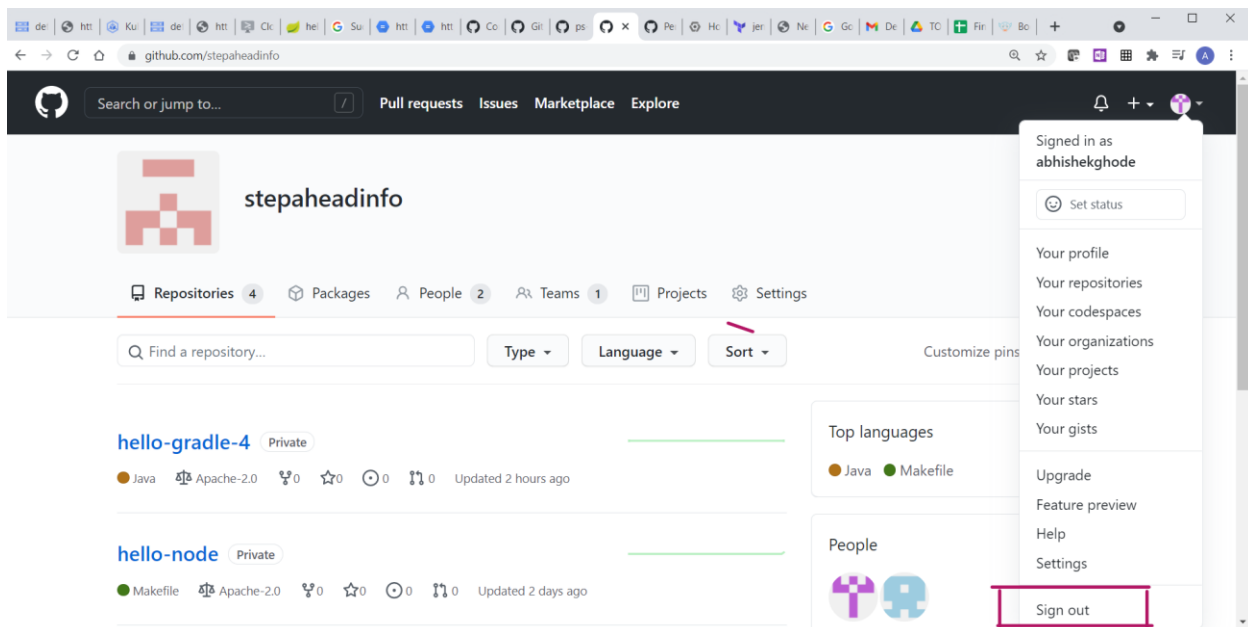
Modified file /home/abhishek_ghode/repos/jenkins-x-boot-config/systems/acme/Chart.yaml to set the chart to version 1
creating the lock configmap jx-lock-jx
lock configmap jx-lock-jx created
Ignoring templates/cert-manager-prod-certificate.yaml
Ignoring templates/cert-manager-prod-issuer.yaml
Ignoring templates/cert-manager-staging-certificate.yaml
Ignoring templates/cert-manager-staging-issuer.yaml
No requirements file: /tmp/jx-helm-apply-587580927/acme/requirements.yaml so not checking for missing versions
cleaning the lock configmap jx-lock-jx

STEP: install-vault command: /bin/sh -c jx step boot vault --provider-values-dir ../kubernetesProviders in dir: /home/abhishek_ghode/repos/jenkins-x-boot-config/systems/vault

Not attempting to boot Vault as using secret storage: local

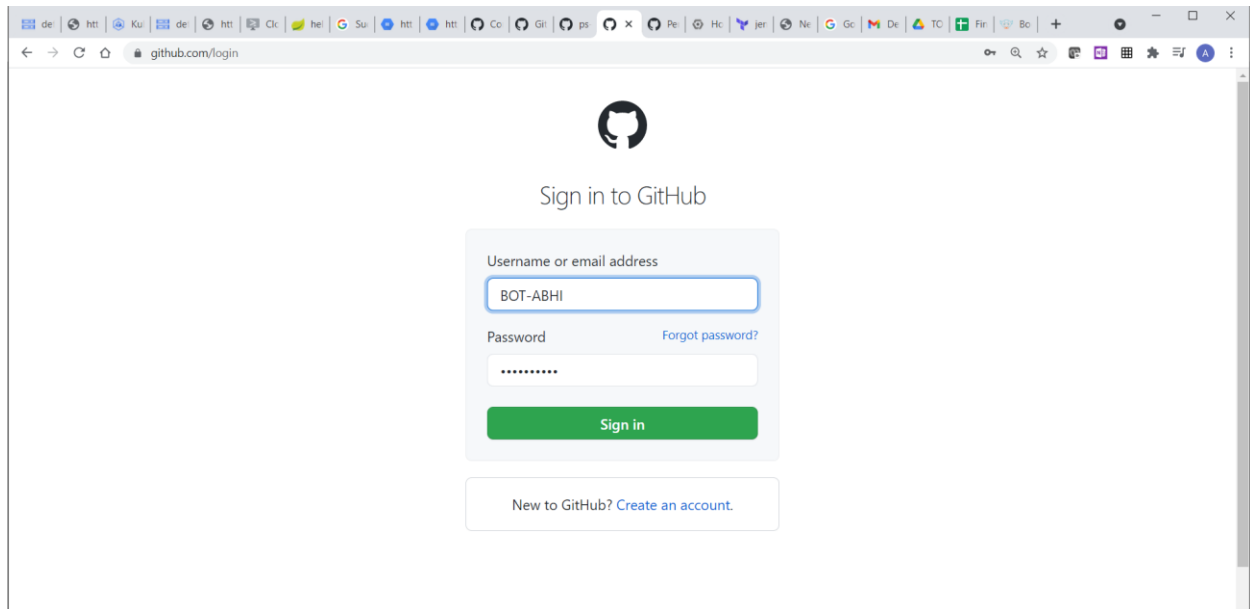
STEP: create-helm-values command: /bin/sh -c jx step create values --name parameters in dir: /home/abhishek_ghode/repos/jenkins-x-boot-config/env

defaulting to secret storage scheme local found from requirements file at /home/abhishek_ghode/repos/jenkins-x-boot-config/jx-requirements.yaml
defaulting to secret base path to the cluster name helm-cluster: found from requirements file at /home/abhishek_ghode/repos/jenkins-x-boot-config/jx-requirements.yaml
generated schema file /home/abhishek_ghode/repos/jenkins-x-boot-config/env/parameters.schema.json from template /home/abhishek_ghode/repos/jenkins-x-boot-config/env/parameter
s.tpl.schema.json
? Jenkins X Admin Username admin
Jenkins X Admin Password *** [Automatically accepted existing value]
? Pipeline bot Git username bot-abhi
? Pipeline bot Git email address gghooddee@gmail.com
? A token for the Git user that will perform git operations inside a pipeline. This includes environment repository creation, and so this token should have full repository pe
rmissions. To create a token go to https://github.com/settings/tokens/new?scopes=repo,read:user,read:org,read:team,write:repo_hook,write:repo_status:push and enter a name, pick the
ate token, and copy and paste the token into the field below
? Pipeline bot Git token
```

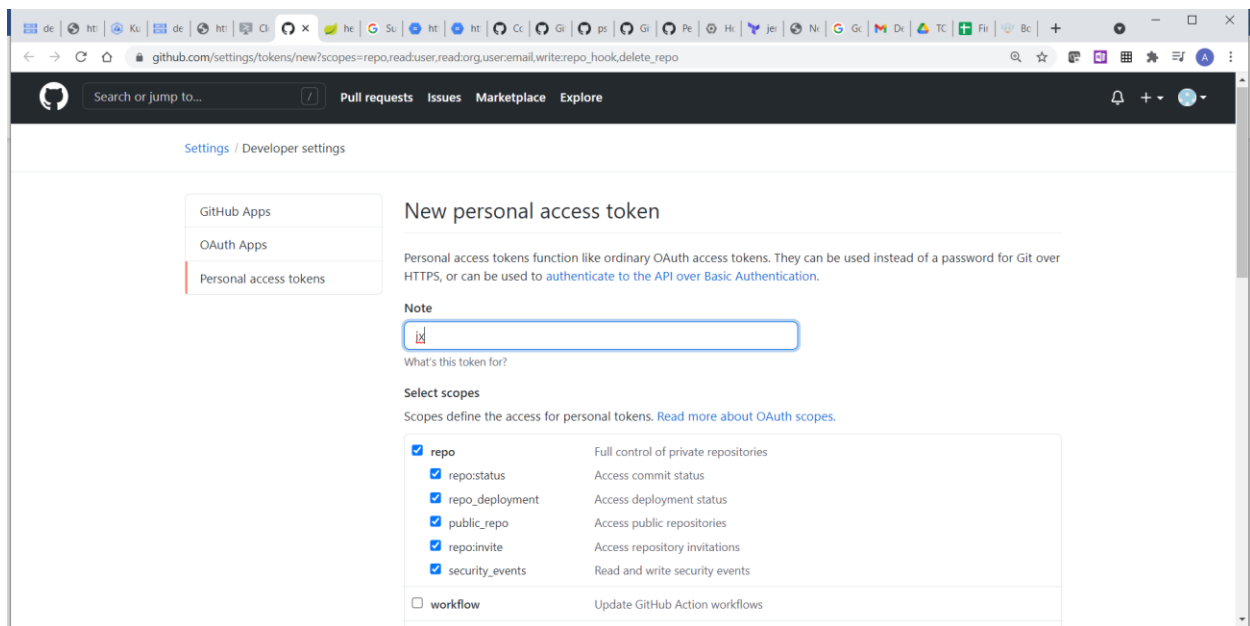


Login using bot user.

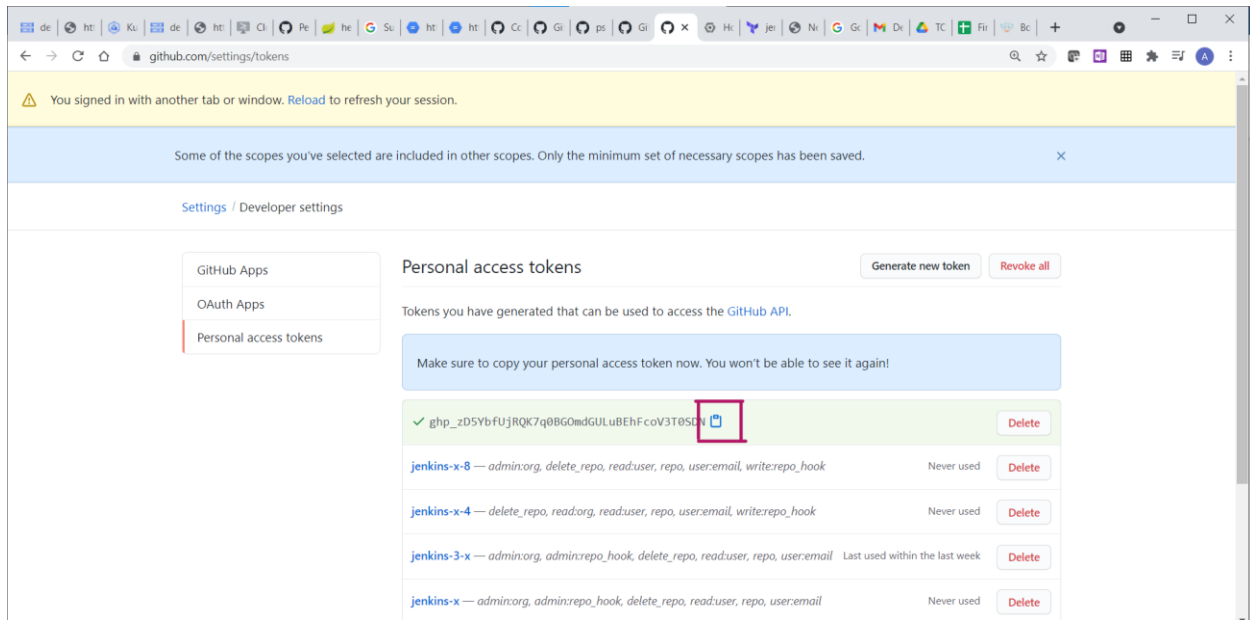
## CICD using Jenkins X – Part 1



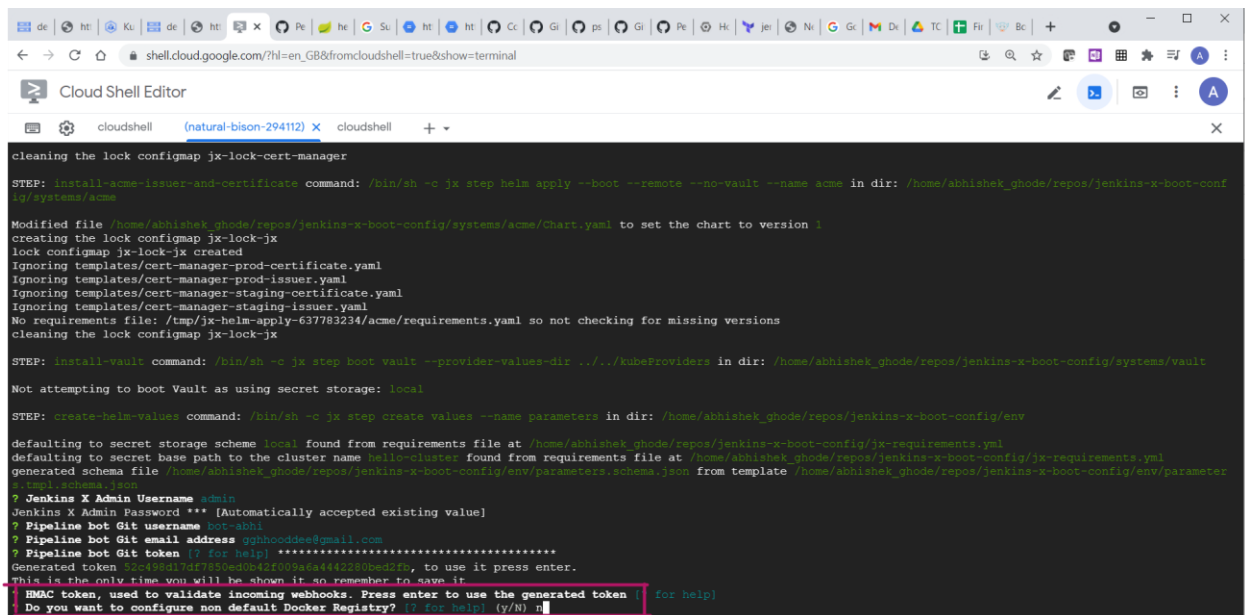
Scroll down and click on “generate token”.



## CICD using Jenkins X – Part 1



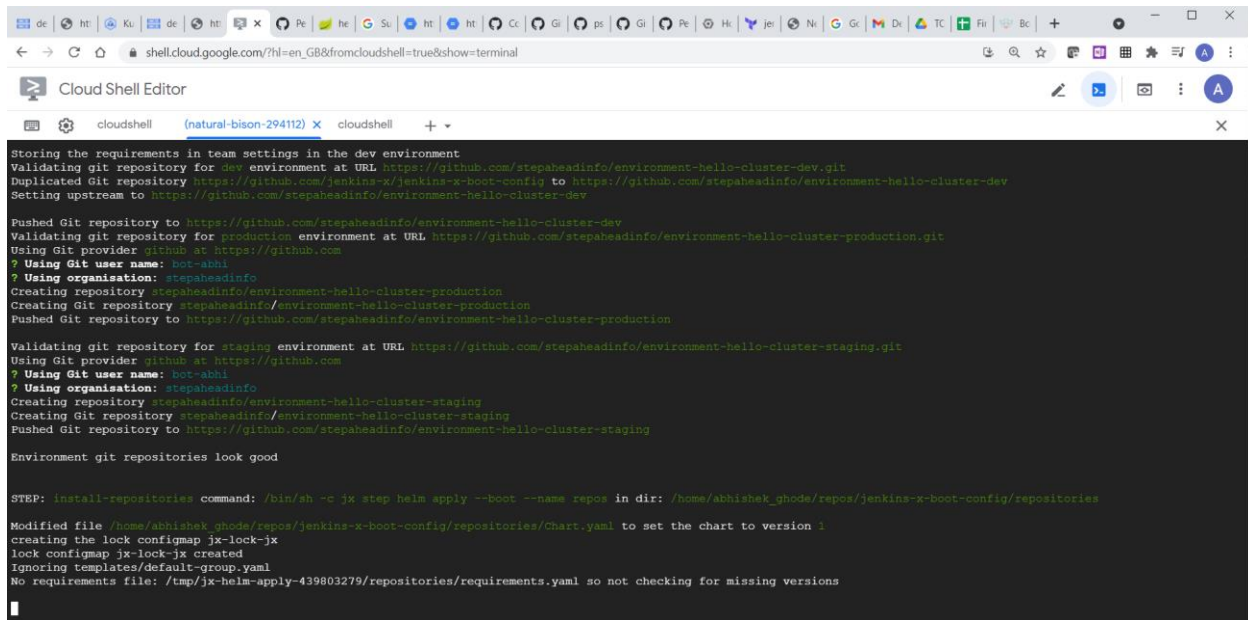
Accept defaults for HMAC token.



While installation is being done



## CICD using Jenkins X – Part 1



```
Storing the requirements in team settings in the dev environment
Validating git repository for dev environment at URL https://github.com/stepaheadinfo/environment-hello-cluster-dev.git
Duplicated Git repository https://github.com/jenkins-x/jenkins-x-boot-config to https://github.com/stepaheadinfo/environment-hello-cluster-dev
Setting upstream to https://github.com/stepaheadinfo/environment-hello-cluster-dev

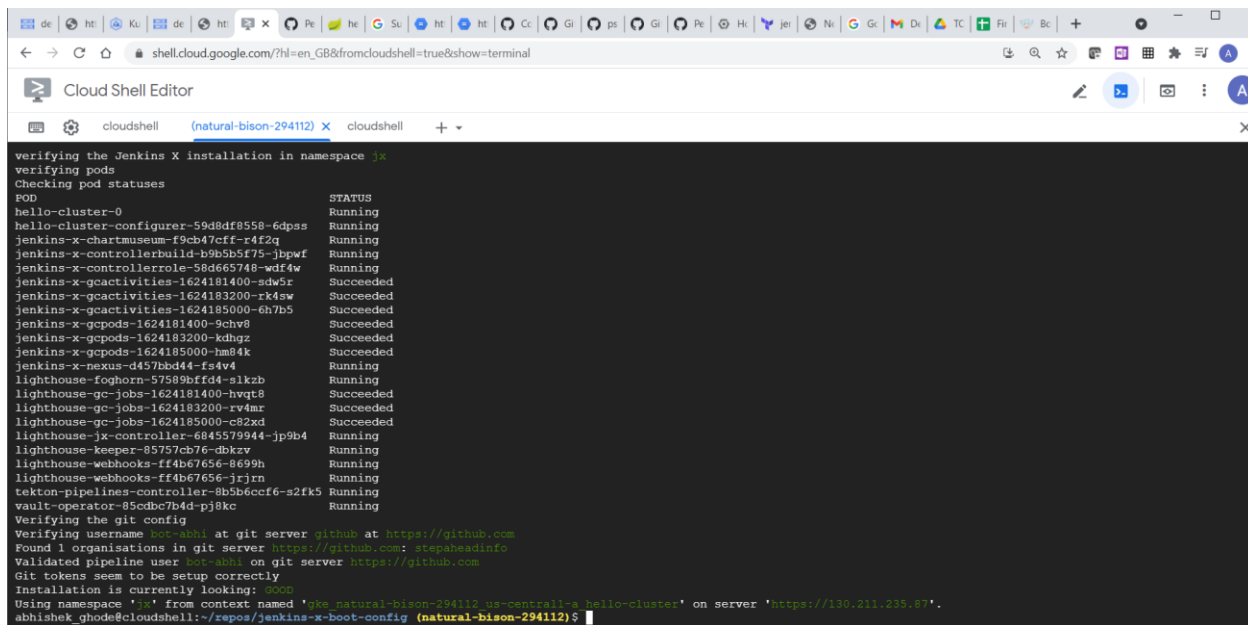
Pushed Git repository to https://github.com/stepaheadinfo/environment-hello-cluster-dev
Validating git repository for production environment at URL https://github.com/stepaheadinfo/environment-hello-cluster-production.git
Using Git provider github at https://github.com
? Using Git user name: bot-abhi
? Using organisation: stepaheadinfo
Creating repository stepaheadinfo/environment-hello-cluster-production
Creating Git repository stepaheadinfo/environment-hello-cluster-production
Pushed Git repository to https://github.com/stepaheadinfo/environment-hello-cluster-production

Validating git repository for staging environment at URL https://github.com/stepaheadinfo/environment-hello-cluster-staging.git
Using Git provider github at https://github.com
? Using Git user name: bot-abhi
? Using organisation: stepaheadinfo
Creating repository stepaheadinfo/environment-hello-cluster-staging
Creating Git repository stepaheadinfo/environment-hello-cluster-staging
Pushed Git repository to https://github.com/stepaheadinfo/environment-hello-cluster-staging

Environment git repositories look good

STEP: install-repositories command: /bin/sh -c jx step helm apply --boot --name repos in dir: /home/abhishek_ghode/repos/jenkins-x-boot-config/repositories
Modified file /home/abhishek_ghode/repos/jenkins-x-boot-config/repositories/Chart.yaml to set the chart to version 1
creating the lock configmap jx-lock-jx
lock configmap jx-lock-jx created
Ignoring template/default-group.yaml
No requirements file: /tmp/jx-helm-apply-439803279/repositories/requirements.yaml so not checking for missing versions
```

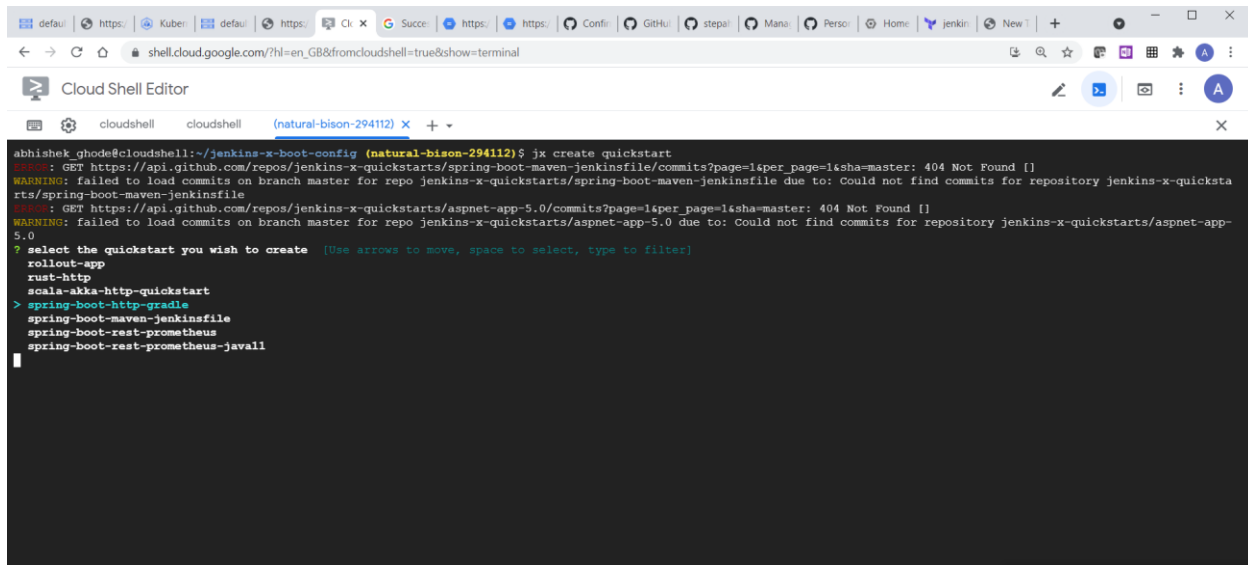
You would see below message once the jx boot completes.



```
verifying the Jenkins X installation in namespace jx
verifying pods
Checking pod statuses
POD
hello-cluster-0 Running
hello-cluster-configurer-59d8df8558-6dpss Running
jenkins-x-chartmuseum-f9cb47cff-r4f2q Running
jenkins-x-controllerbuild-b9b5b5f75-jbpwf Running
jenkins-x-controllerrole-58d665748-wdf4w Running
jenkins-x-gcactivities-1624181400-adv5r Succeeded
jenkins-x-gcactivities-1624183200-rk4sw Succeeded
jenkins-x-gcactivities-1624185000-gh7b5 Succeeded
jenkins-x-gcpods-1624181400-9chv8 Succeeded
jenkins-x-gcpods-1624183200-kdhgz Succeeded
jenkins-x-gcpods-1624185000-hm84k Succeeded
jenkins-x-nexus-d457bbd44-fs4v4 Running
lighthouse-foghorn-57589bffd4-slkzb Running
lighthouse-gc-jobs-1624181400-hvqt8 Succeeded
lighthouse-gc-jobs-1624183200-rv4hz Succeeded
lighthouse-gc-jobs-1624185000-c82xd Succeeded
lighthouse-jx-controller-6845579944-jp9b4 Running
lighthouse-keeper-85757cb76-dbkzv Running
lighthouse-webhooks-ff4b67656-8699h Running
lighthouse-webhooks-ff4b67656-jrjrn Running
tekton-pipelines-controller-8b5b6ccf6-s2fk5 Running
vault-operator-85cdcb7b4d-pj8kc Running
Verifying the git config
Verifying username bot-abhi at git server github at https://github.com
Found 1 organisations in git server https://github.com: stepaheadinfo
Validated pipeline user bot-abhi on git server https://github.com
Git tokens seem to be setup correctly
Installation is currently looking: GOOD
Using namespace 'jx' from context named 'gke_natural-bison-294112_us-central1-a_hello-cluster' on server 'https://130.211.235.87'.
abhishek_ghode@cloudshell:~/repos/jenkins-x-boot-config (natural-bison-294112)$
```

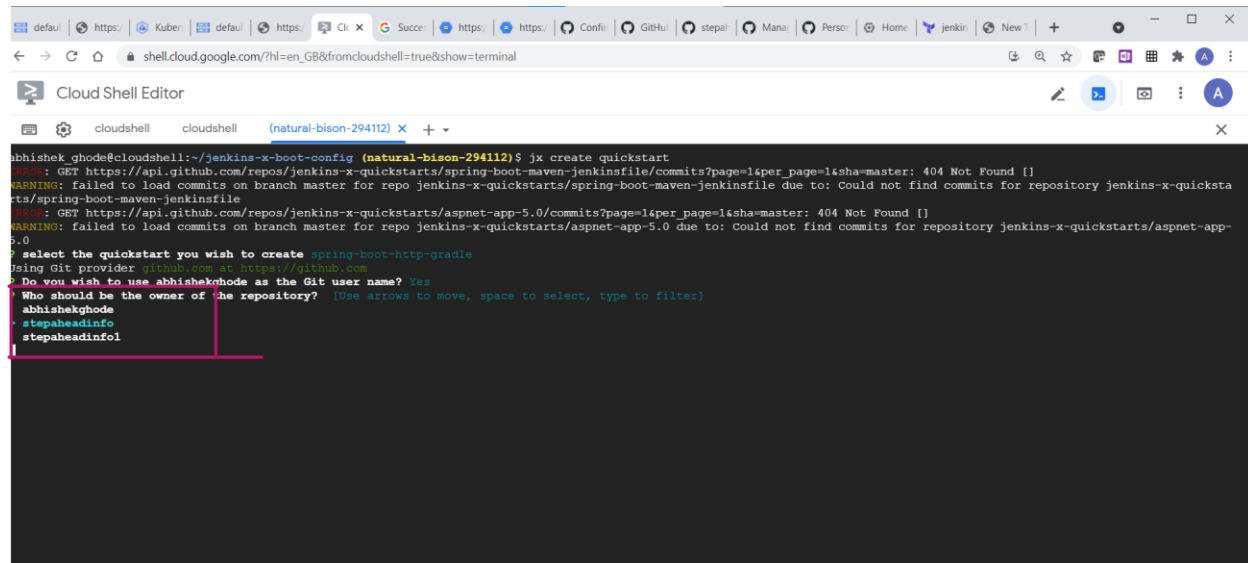
Step 4: Create a quickstart project using ‘Spring-boot-http-gradle’. You can also use another template.

## CICD using Jenkins X – Part 1



```
abhishek_ghode@cloudshell:~/jenkins-x-boot-config (natural-bison-294112)$ jx create quickstart
INFO: GET https://api.github.com/repos/jenkins-x-quickstarts/spring-boot-maven-jenkinsfile/commits?page=1&per_page=1&sha=master: 404 Not Found []
WARNING: failed to load commits on branch master for repo jenkins-x-quickstarts/spring-boot-maven-jenkinsfile due to: Could not find commits for repository jenkins-x-quicksta
rts/spring-boot-maven-jenkinsfile
ERROR: GET https://api.github.com/repos/jenkins-x-quickstarts/aspnet-app-5.0/commits?page=1&per_page=1&sha=master: 404 Not Found []
WARNING: failed to load commits on branch master for repo jenkins-x-quickstarts/aspnet-app-5.0 due to: Could not find commits for repository jenkins-x-quickstarts/aspnet-app-
5.0
? select the quickstart you wish to create [Use arrows to move, space to select, type to filter]
rollout-app
rust-http
scala-akka-http-quickstart
> spring-boot-http-gradle
spring-boot-maven-jenkinsfile
spring-boot-rest-prometheus
spring-boot-rest-prometheus-javall
```

Please select git organization owned by you.



```
abhishek_ghode@cloudshell:~/jenkins-x-boot-config (natural-bison-294112)$ jx create quickstart
INFO: GET https://api.github.com/repos/jenkins-x-quickstarts/spring-boot-maven-jenkinsfile/commits?page=1&per_page=1&sha=master: 404 Not Found []
WARNING: failed to load commits on branch master for repo jenkins-x-quickstarts/spring-boot-maven-jenkinsfile due to: Could not find commits for repository jenkins-x-quicksta
rts/spring-boot-maven-jenkinsfile
ERROR: GET https://api.github.com/repos/jenkins-x-quickstarts/aspnet-app-5.0/commits?page=1&per_page=1&sha=master: 404 Not Found []
WARNING: failed to load commits on branch master for repo jenkins-x-quickstarts/aspnet-app-5.0 due to: Could not find commits for repository jenkins-x-quickstarts/aspnet-app-
5.0
? select the quickstart you wish to create spring-boot-http-gradle
Using Git provider github.com at https://github.com
? Do you wish to use abhishekghode as the Git user name? Yes
Who should be the owner of the repository? [Use arrows to move, space to select, type to filter]
abhishekghode
stepaheadinfo
stepaheadinfof
```

Please accept defaults and continue with the installation.

## CICD using Jenkins X – Part 1

```
Cloud Shell Editor
cloudshell cloudshell (natural-bison-294112) X +
Git repository created
selected pack: /home/abhishek_gghode/.jx/draft/packs/github.com/jenkins-x-buildpacks/jenkins-x-kubernetes/packs/gradle
replacing placeholders in directory /home/abhishek_gghode/jenkins-x-boot-config/hello-gradle-4
app names: hello-gradle-4, git server: github.com, org: stepaheadinfo, Docker registry org: natural-bison-294112
skipping directory /home/abhishek_gghode/jenkins-x-boot-config/hello-gradle-4/.git
Draft pack gradle added
Pushed Git repository to https://github.com/stepaheadinfo/hello-gradle-4
Automatically adding the pipeline user: bot-abhi as a collaborator.
WARNING: Pipeline Git user credentials not found. bot-abhi will need to accept the invitation to collaborate on hello-gradle-4 if bot-abhi is not part of stepaheadinfo.
Creating GitHub webhook for stepaheadinfo/hello-gradle-4 for url http://hook-jk.35.192.164.219.nip.io/hook
Created Pull Request: https://github.com/BOT-ABHI/environment-hello-cluster-dev/pull/1
Added label environment-hello-cluster-dev to Pull Request https://github.com/BOT-ABHI/environment-hello-cluster-dev/pull/1
created pull request https://github.com/BOT-ABHI/environment-hello-cluster-dev/pull/1 on the development git repository https://github.com/BOT-ABHI/environment-hello-cluster-dev.git
regenerated Prow configuration
PipelineActivity for stepaheadinfo-hello-gradle-4-master-1
upserted PipelineResource meta-stepaheadinfo-hello-gradle-kmjrs for the git repository https://github.com/stepaheadinfo/hello-gradle-4.git
upserted Task meta-stepaheadinfo-hello-gradle-kmjrs-meta-pipeline-1
upserted Pipeline meta-stepaheadinfo-hello-gradle-kmjrs-1
created PipelineRun meta-stepaheadinfo-hello-gradle-kmjrs-1
created PipelineStructure meta-stepaheadinfo-hello-gradle-kmjrs-1

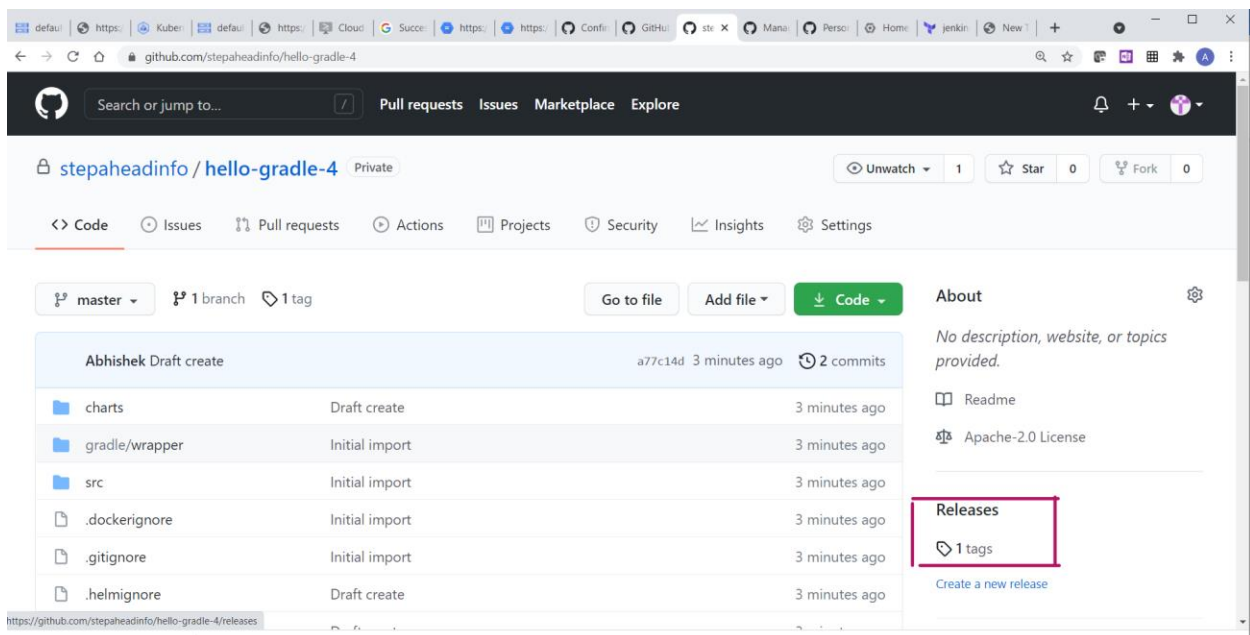
Watch pipeline activity via: jx get activity -f hello-gradle-4 -w
Browse the pipeline log via: jx get build logs stepaheadinfo/hello-gradle-4/master
You can list the pipelines via: jx get pipelines
When the pipeline is complete: jx get applications

For more help on available commands see: https://jenkins-x.io/developing/browsing/

Note that your first pipeline may take a few minutes to start while the necessary images get downloaded!

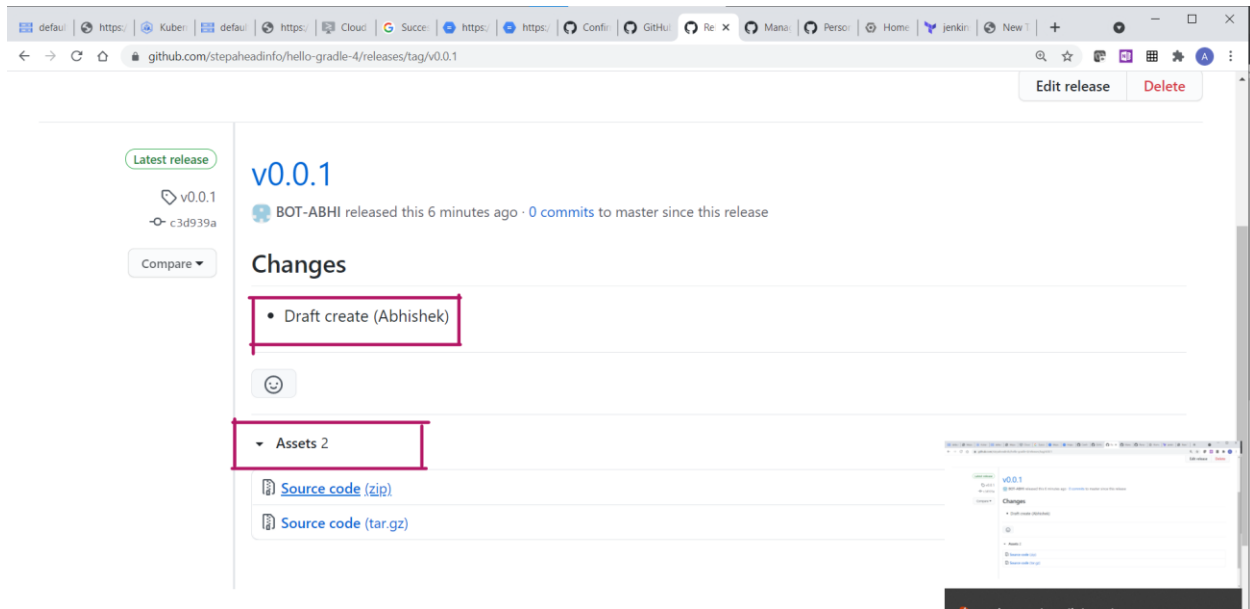
abhishek_gghode@cloudshell:~/jenkins-x-boot-config (natural-bison-294112) $
```

You would observe a new git repository created in your organization and click on 'Releases'.



The pipeline should initiate a new commit with message 'draft create'.

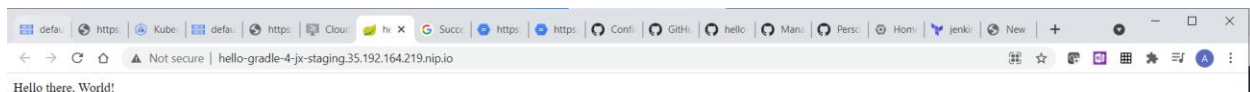
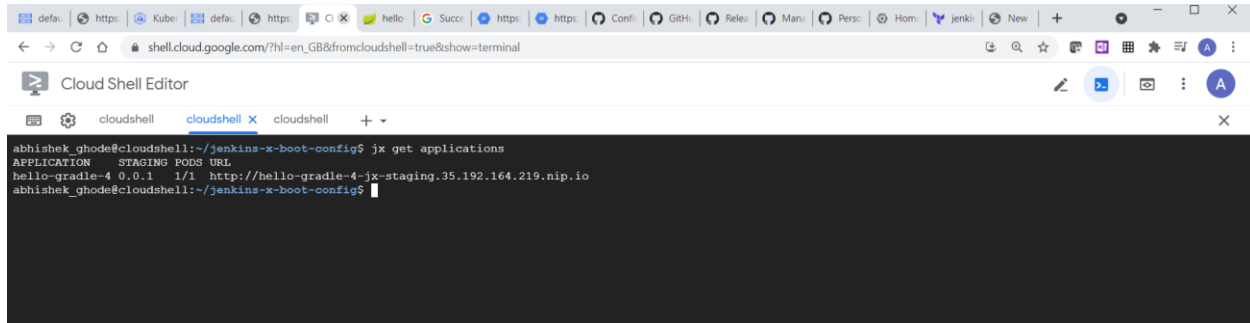
## CICD using Jenkins X – Part 1



On cloud shell, run below command:

`jx get applications`

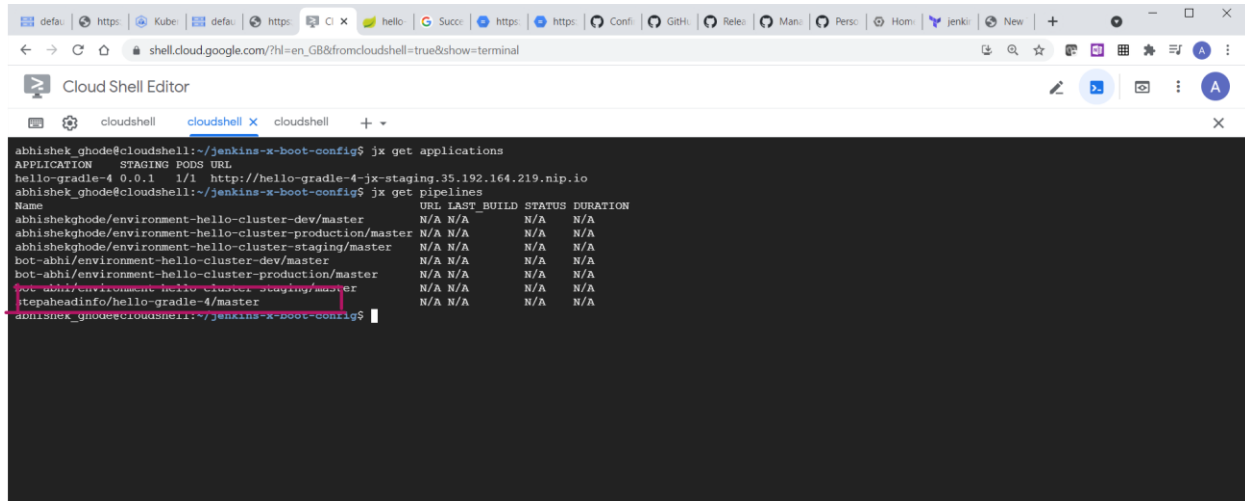
Click on the URL, you would be able to access application built by Jenkins X pipeline.



## CICD using Jenkins X – Part 1

Run below command to access created pipeline:

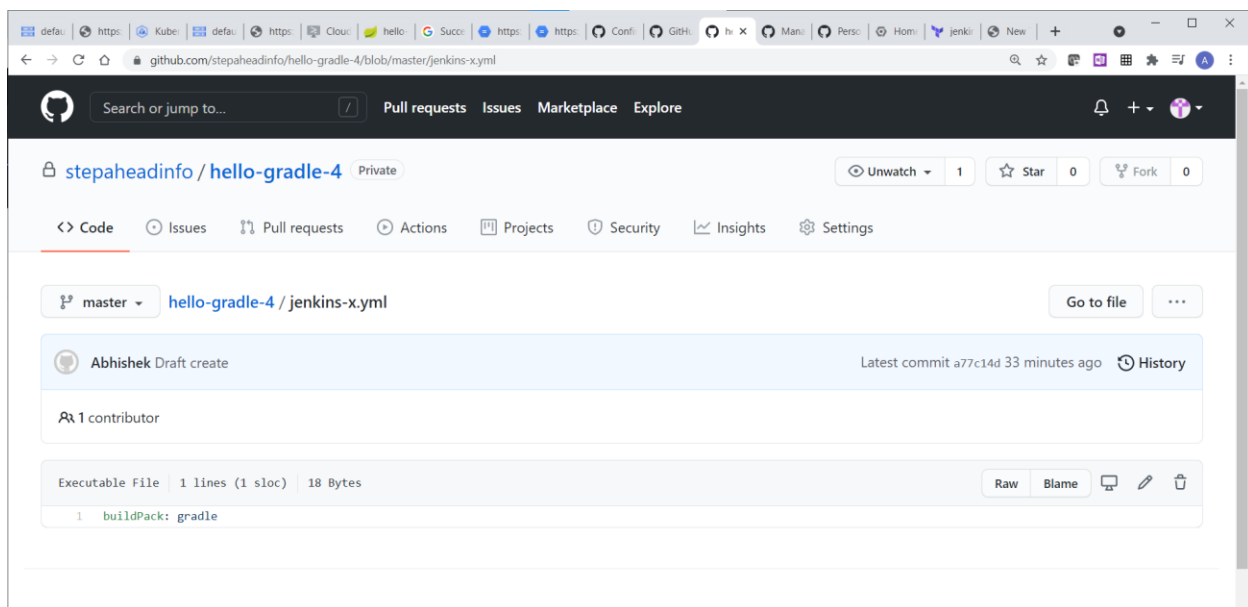
`jx get pipelines`



```
abhishek_ghode@cloudshell:~/jenkins-x-boot-config$ jx get applications
APPLICATION STAGING PODS URL
hello-gradle-4 0.0.1 1/1 http://hello-gradle-4-jx-staging.35.192.164.219.nip.io
abhishek_ghode@cloudshell:~/jenkins-x-boot-config$ jx get pipelines
Name URL LAST_BUILD STATUS DURATION
abhishekghode/environment-hello-cluster-dev/master N/A N/A N/A N/A
abhishekghode/environment-hello-cluster-production/master N/A N/A N/A N/A
abhishekghode/environment-hello-cluster-staging/master N/A N/A N/A N/A
bot-abhi/environment-hello-cluster-dev/master N/A N/A N/A N/A
bot-abhi/environment-hello-cluster-production/master N/A N/A N/A N/A
bot-abhi/environment-hello-cluster-staging/master N/A N/A N/A N/A
stepaheadinfo/hello-gradle-4/master N/A N/A N/A N/A
abhishek_ghode@cloudshell:~/jenkins-x-boot-config$
```

Please check repository created.

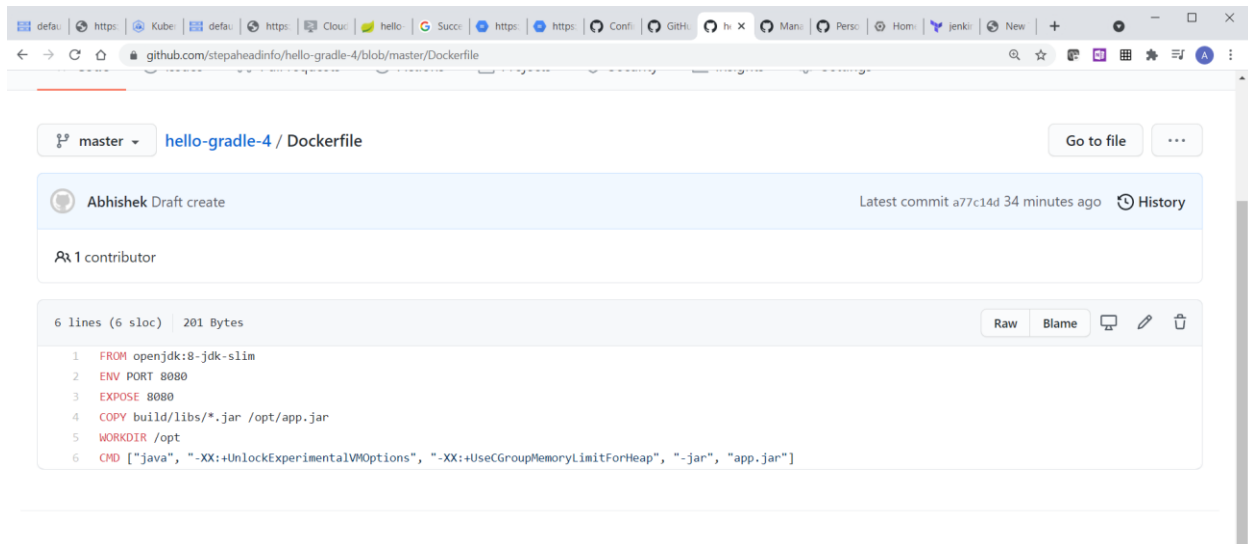
You can check Jenkins-x.yml file for a line where we mentioned gradle as build tool.



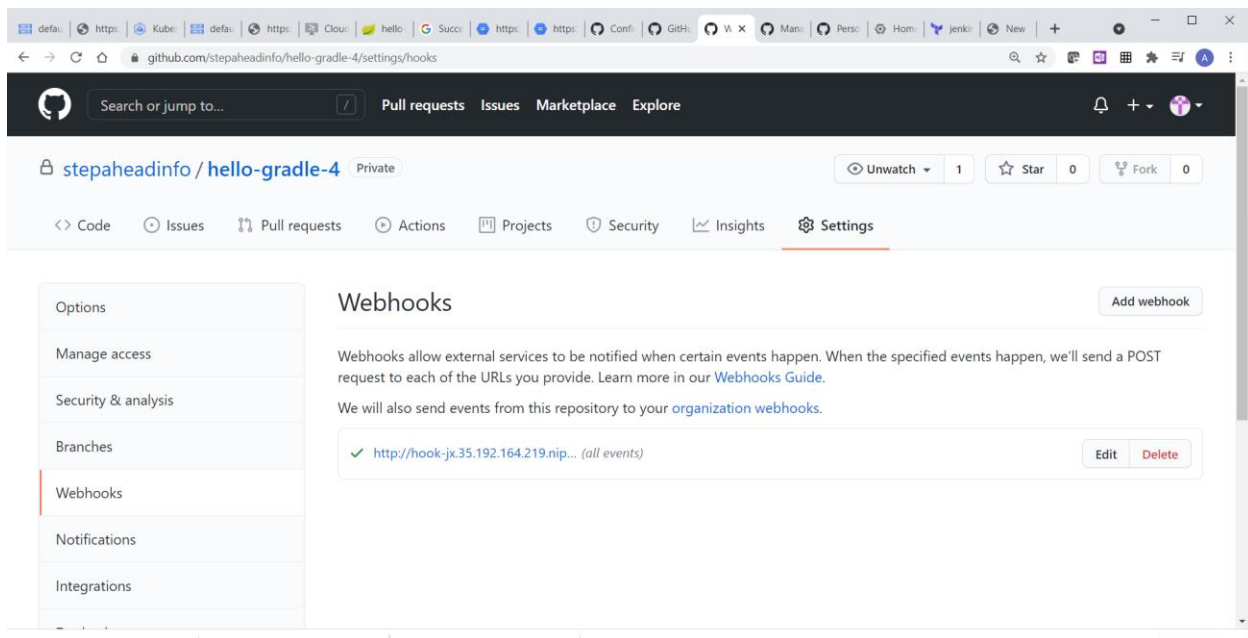
```
stepaheadinfo / hello-gradle-4 Private
Unwatch 1 Star 0 Fork 0
Code Issues Pull requests Actions Projects Security Insights Settings
master hello-gradle-4 / jenkins-x.yml Go to file ...
Abhishek Draft create Latest commit a77c14d 33 minutes ago History
1 contributor
Executable File 1 lines (1 sloc) 18 Bytes Raw Blame
1 buildPack: gradle
```

Dockefile is also generated for you.

## CICD using Jenkins X – Part 1



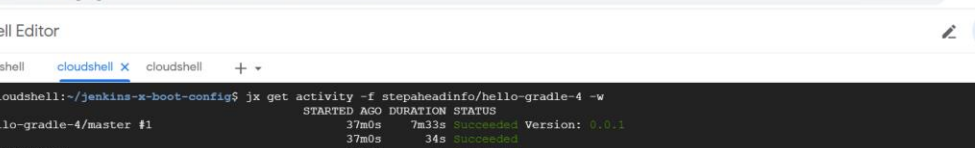
You can also check webhook.



You can also observe pipeline execution using below command:

Jx get activity -f <pipeline-name> -w

## CI/CD using Jenkins X – Part 1



The screenshot shows a Cloud Shell terminal window with the command `jx get activity -f stepaheadinfo/hello-gradle-4 -w` executed. The output is a table of activity logs for the Jenkins pipeline `stepaheadinfo/hello-gradle-4`. The table has columns for the step name, duration, time ago, status, and version. The steps include meta pipeline, Credential Initializer, Working Dir Initializer, Place Tools, Git Source Meta Stepheadinfo Hello Gradle Kmjr5 Lqzd2, Git Merge, Merge Pull Refs, Create Effective Pipeline, Create Tekton Crds, from build pack, Credential Initializer, Working Dir Initializer, Place Tools, Git Source Stepheadinfo Hello Gradle 4 Ma 8r84v B9g9h, Setup Builder Home, Git Merge, Setup Jx Git Credentials, Build Gradle Build, Build Container Build, Build Post Build, Promote Changelog, Promote Main Release, Promote Jx Promote, Promote: staging, PullRequest, erge SHA: 4b3d2aabb1a9434ed6a260c441e399ef9150787cb, and Update. The status for all steps is 'Succeeded'.

STEP	STARTED	AGO	DURATION	STATUS	Version: 0.0.1
stepaheadinfo/hello-gradle-4/master #1	37m0s	7m33s	Succeeded		
meta pipeline	37m0s	34s	Succeeded		
Credential Initializer	37m0s	0s	Succeeded		
Working Dir Initializer	37m0s	1s	Succeeded		
Place Tools	36m59s	2s	Succeeded		
Git Source Meta Stepheadinfo Hello Gradle Kmjr5 Lqzd2	36m57s	13s	Succeeded		<a href="https://github.com/stepaheadinfo/hello-gradle-4.git">https://github.com/stepaheadinfo/hello-gradle-4.git</a>
Git Merge	36m44s	1s	Succeeded		
Merge Pull Refs	36m43s	0s	Succeeded		
Create Effective Pipeline	36m43s	6s	Succeeded		
Create Tekton Crds	36m37s	11s	Succeeded		
from build pack	36m24s	6m57s	Succeeded		
Credential Initializer	36m24s	0s	Succeeded		
Working Dir Initializer	36m24s	2s	Succeeded		
Place Tools	36m22s	1s	Succeeded		
Git Source Stepheadinfo Hello Gradle 4 Ma 8r84v B9g9h	36m21s	39s	Succeeded		<a href="https://github.com/stepaheadinfo/hello-gradle-4.git">https://github.com/stepaheadinfo/hello-gradle-4.git</a>
Setup Builder Home	35m42s	1s	Succeeded		
Git Merge	35m41s	1s	Succeeded		
Setup Jx Git Credentials	35m40s	1s	Succeeded		
Build Gradle Build	35m39s	1m19s	Succeeded		
Build Container Build	34m20s	16s	Succeeded		
Build Post Build	34m4s	1s	Succeeded		
Promote Changelog	34m3s	6s	Succeeded		
Promote Main Release	33m55s	9s	Succeeded		
Promote Jx Promote	33m46s	4m19s	Succeeded		
Promote: staging	33m35s	4m8s	Succeeded		
PullRequest	33m35s	4m6s	Succeeded		PullRequest: <a href="https://github.com/BOT-ABRI/environment-hello-cluster-staging/pull/1">https://github.com/BOT-ABRI/environment-hello-cluster-staging/pull/1</a>
erge SHA: 4b3d2aabb1a9434ed6a260c441e399ef9150787cb					
Update	29m29s	2s	Succeeded		