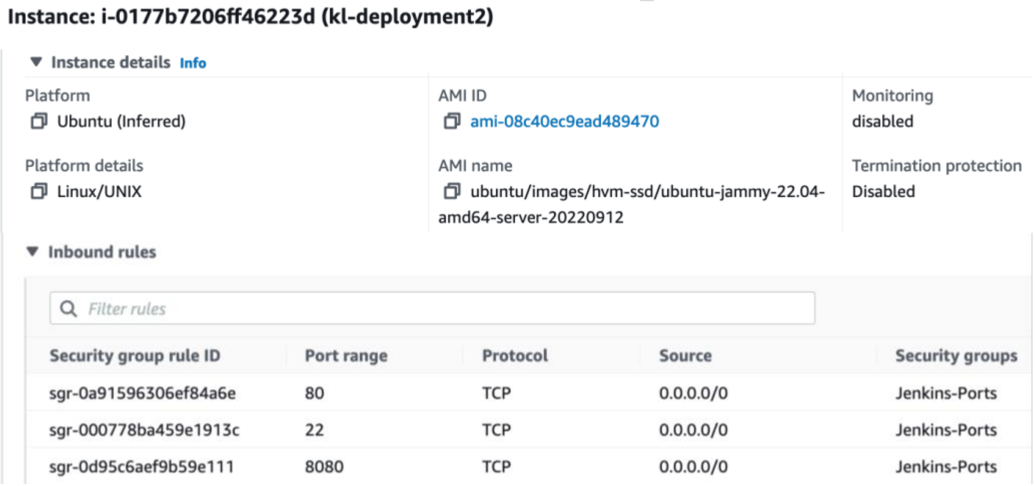
Deployment 2 Documentation
Caden Hong

Jenkins Setup on EC2

- Create an EC2 instance (select Ubuntu for AMI and open ports 22, 80, and 8080):



Instance: i-0177b7206ff46223d (kl-deployment2)

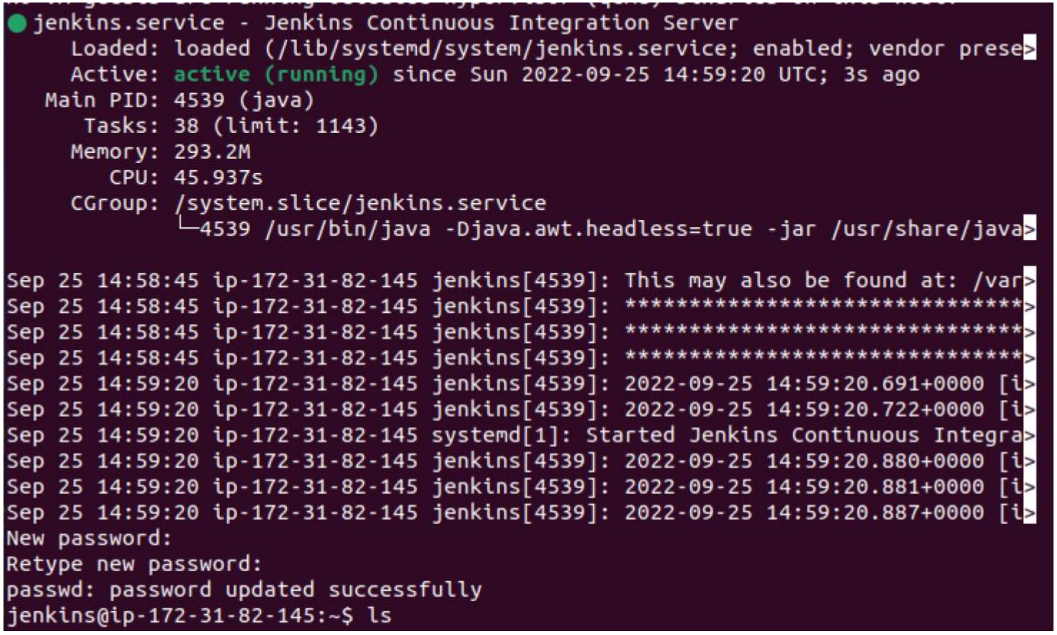
▼ Instance details Info

Platform Ubuntu (Inferred)	AMI ID ami-08c40ec9ead489470	Monitoring disabled
Platform details Linux/UNIX	AMI name ubuntu/images/hvm-ssd/ubuntu-jammy-22.04-amd64-server-20220912	Termination protection Disabled

▼ Inbound rules

Security group rule ID	Port range	Protocol	Source	Security groups
sgr-0a91596306ef84a6e	80	TCP	0.0.0.0/0	Jenkins-Ports
sgr-000778ba459e1913c	22	TCP	0.0.0.0/0	Jenkins-Ports
sgr-0d95c6aef9b59e111	8080	TCP	0.0.0.0/0	Jenkins-Ports

- SSH into the EC2 and run setup_jenkins.sh to install Jenkins, create a jenkins user, and activate the jenkins user by switching to it in Bash shell:



```
● jenkins.service - Jenkins Continuous Integration Server
     Loaded: loaded (/lib/systemd/system/jenkins.service; enabled; vendor prese>
     Active: active (running) since Sun 2022-09-25 14:59:20 UTC; 3s ago
   Main PID: 4539 (java)
      Tasks: 38 (limit: 1143)
     Memory: 293.2M
        CPU: 45.937s
     CGroup: /system.slice/jenkins.service
             └─4539 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/java>

Sep 25 14:58:45 ip-172-31-82-145 jenkins[4539]: This may also be found at: /var>
Sep 25 14:58:45 ip-172-31-82-145 jenkins[4539]: *******************************>
Sep 25 14:58:45 ip-172-31-82-145 jenkins[4539]: *******************************>
Sep 25 14:58:45 ip-172-31-82-145 jenkins[4539]: *******************************>
Sep 25 14:59:20 ip-172-31-82-145 jenkins[4539]: 2022-09-25 14:59:20.691+0000 [i>
Sep 25 14:59:20 ip-172-31-82-145 jenkins[4539]: 2022-09-25 14:59:20.722+0000 [i>
Sep 25 14:59:20 ip-172-31-82-145 systemd[1]: Started Jenkins Continuous Integra>
Sep 25 14:59:20 ip-172-31-82-145 jenkins[4539]: 2022-09-25 14:59:20.880+0000 [i>
Sep 25 14:59:20 ip-172-31-82-145 jenkins[4539]: 2022-09-25 14:59:20.881+0000 [i>
Sep 25 14:59:20 ip-172-31-82-145 jenkins[4539]: 2022-09-25 14:59:20.887+0000 [i>
New password:
Retype new password:
passwd: password updated successfully
jenkins@ip-172-31-82-145:~$ ls
```

- Go to http://<ec2-public-ip>:8080 to set up Jenkins admin role – retrieve password by:
    - `sudo cat /var/lib/Jenkins/secrets/initialAdminPassword`
- Install suggested plugins
- Reset admin password then save

Deployment 2 Documentation
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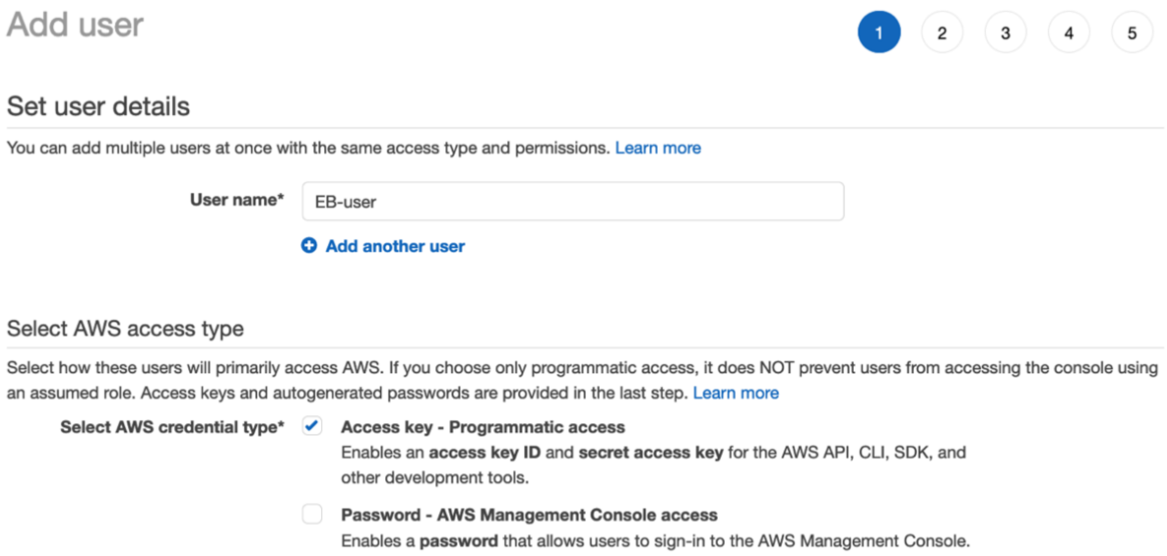
Creating a Jenkins user on my AWS Account

- AWS > IAM > Access Management > Users > Add users
- Enter **EB-user** as username and click **Access key - Programmatic access** for access type:



Set user details

You can add multiple users at once with the same access type and permissions. Learn more

User name* EB-user

Select AWS access type

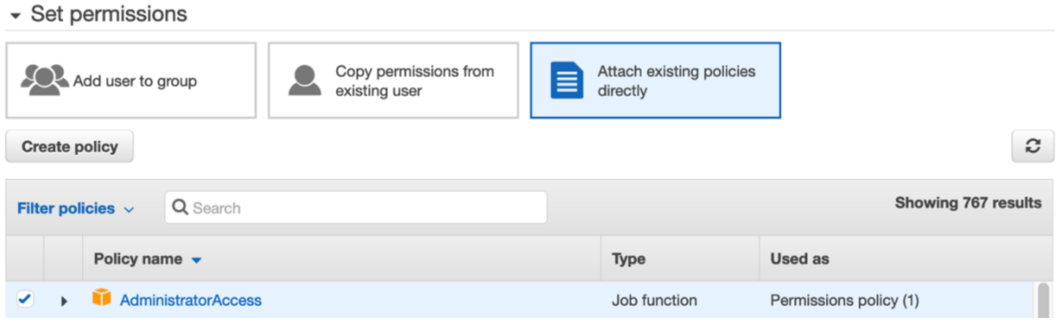
Select how these users will primarily access AWS. If you choose only programmatic access, it does NOT prevent users from accessing the console using an assumed role. Access keys and autogenerated passwords are provided in the last step. Learn more

Select AWS credential type*

☑ **Access key - Programmatic access**
Enables an **access key ID** and **secret access key** for the AWS API, CLI, SDK, and other development tools.

☐ **Password - AWS Management Console access**
Enables a **password** that allows users to sign-in to the AWS Management Console.

- Select **AdministratorAccess** under “Attach existing policies directly”:

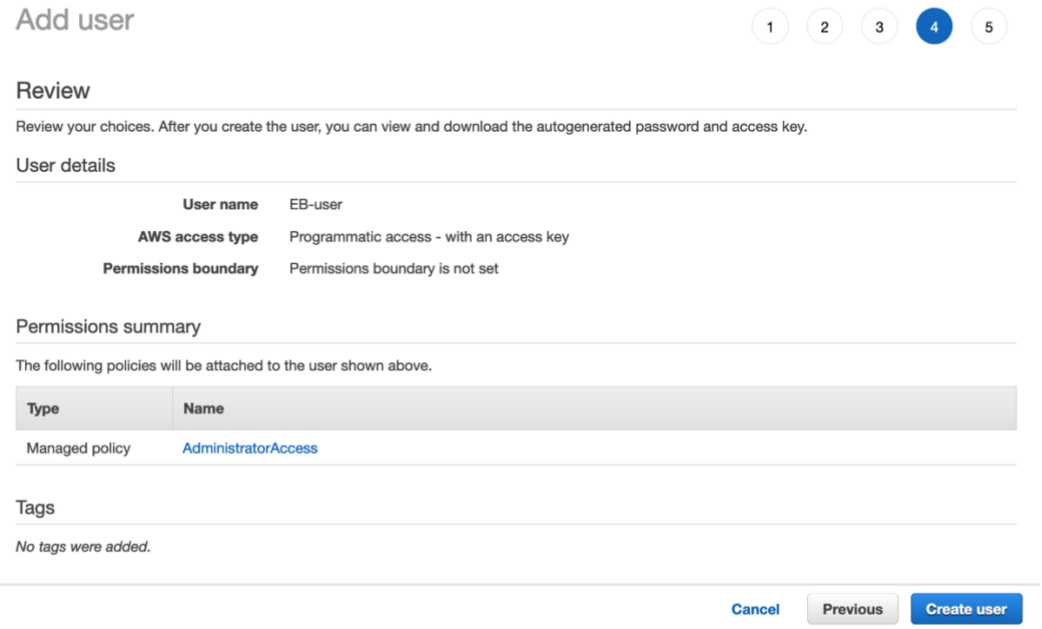


Set permissions
Add user to group
Copy permissions from existing user
Attach existing policies directly
Create policy
Filter policies
Search

Showing 767 results

		Policy name	Type	Used as
☑	▸	AdministratorAccess	Job function	Permissions policy (1)

- Review user info then create user:



Review

Review your choices. After you create the user, you can view and download the autogenerated password and access key.

User details

User name	EB-user
AWS access type	Programmatic access - with an access key
Permissions boundary	Permissions boundary is not set

Permissions summary

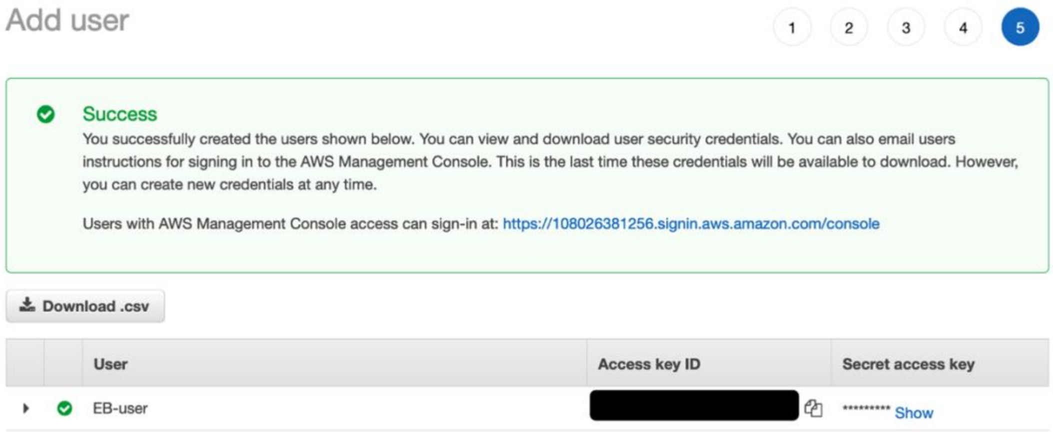
The following policies will be attached to the user shown above.

Type	Name
Managed policy	AdministratorAccess

Tags

No tags were added.

- Download generated credentials CSV (contains Access key ID and Secret access key):



Success

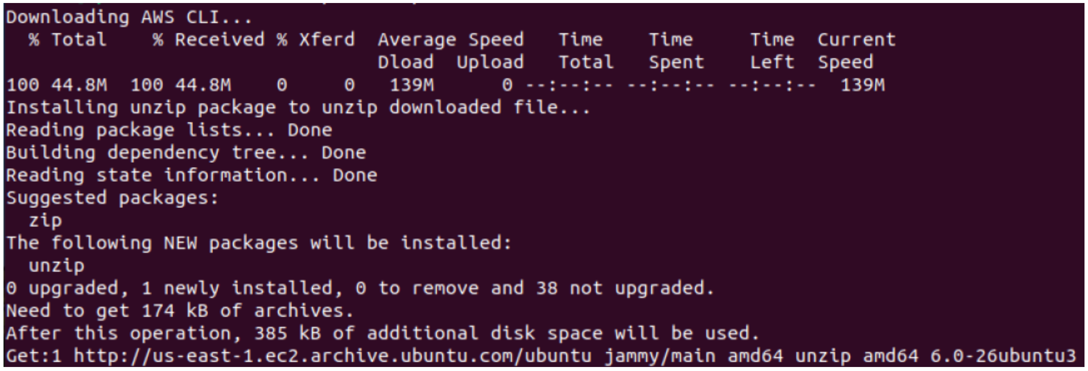
You successfully created the users shown below. You can view and download user security credentials. You can also email users instructions for signing in to the AWS Management Console. This is the last time these credentials will be available to download. However, you can create new credentials at any time.

Users with AWS Management Console access can sign-in at: https://108026381256.signin.aws.amazon.com/console

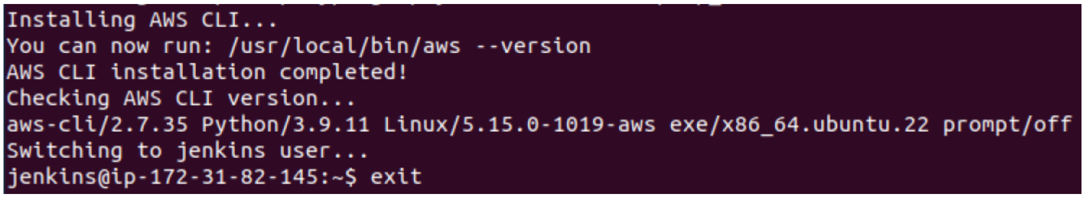
		User	Access key ID	Secret access key
▸	✓	EB-user	[redacted]	********* Show

AWS CLI Setup on EC2

- As the Ubuntu user (**NOT** Jenkins user) on the EC2, run setup_awscli.sh**:**

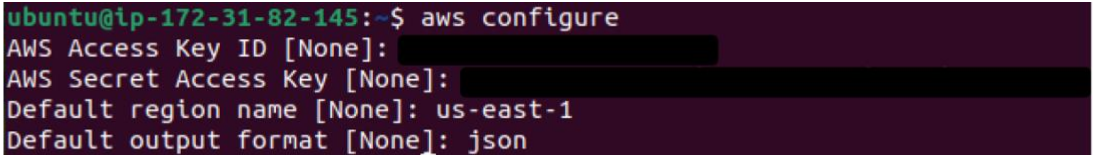


```
Downloading AWS CLI...
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100 44.8M  100 44.8M    0     0   139M      0 --:--:-- --:--:-- --:--:--  139M
Installing unzip package to unzip downloaded file...
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Suggested packages:
  zip
The following NEW packages will be installed:
  unzip
0 upgraded, 1 newly installed, 0 to remove and 38 not upgraded.
Need to get 174 kB of archives.
After this operation, 385 kB of additional disk space will be used.
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 unzip amd64 6.0-26ubuntu3
```



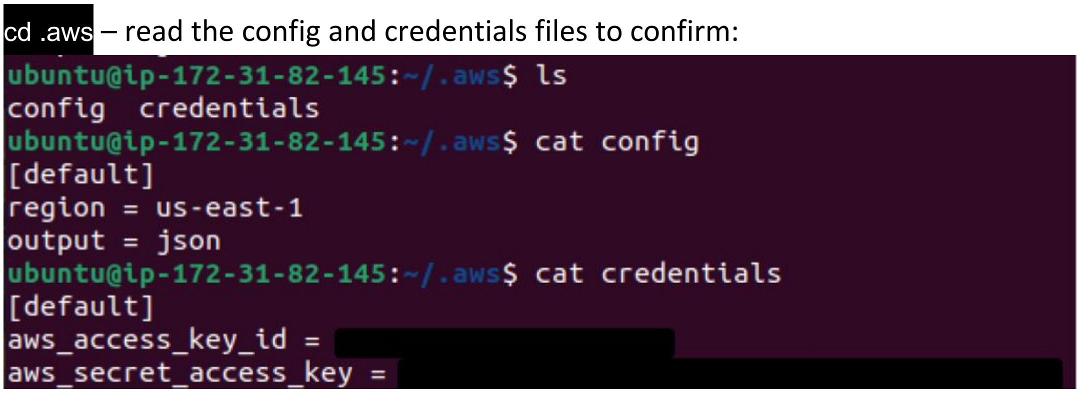
```
Installing AWS CLI...
You can now run: /usr/local/bin/aws --version
AWS CLI installation completed!
Checking AWS CLI version...
aws-cli/2.7.35 Python/3.9.11 Linux/5.15.0-1019-aws exe/x86_64.ubuntu.22 prompt/off
Switching to jenkins user...
jenkins@ip-172-31-82-145:~$ exit
```

- Configure AWS using credentials generated during the IAM user creation:



```
ubuntu@ip-172-31-82-145:~$ aws configure
AWS Access Key ID [None]: [redacted]
AWS Secret Access Key [None]: [redacted]
Default region name [None]: us-east-1
Default output format [None]: json
```

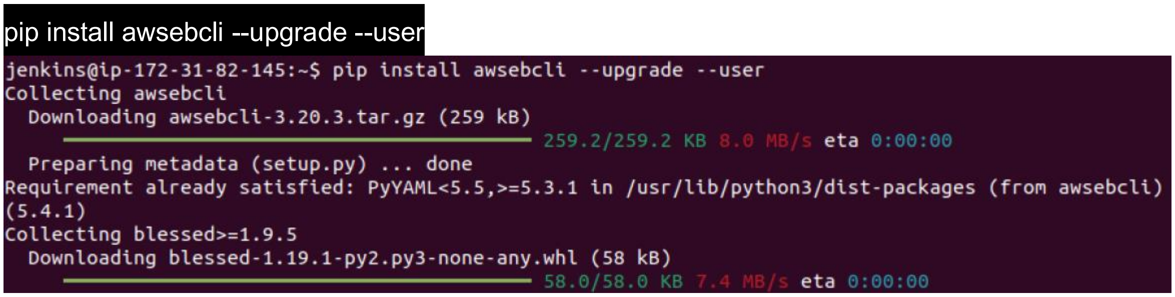
- `cd .aws` – read the config and credentials files to confirm:



```
ubuntu@ip-172-31-82-145:~/.aws$ ls
config  credentials
ubuntu@ip-172-31-82-145:~/.aws$ cat config
[default]
region = us-east-1
output = json
ubuntu@ip-172-31-82-145:~/.aws$ cat credentials
[default]
aws_access_key_id = [redacted]
aws_secret_access_key = [redacted]
```

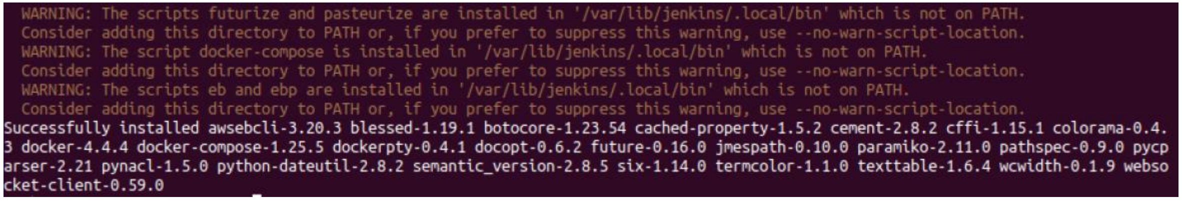
Installing EB CLI on jenkins EC2 User

- `sudo su - jenkins -s /bin/bash` to switch to the jenkins user's bash terminal
- Run **setup_ebcli.sh** to set up the EB CLI on jenkins user – it will run the following:
    - `pip install awsebcli --upgrade --user`



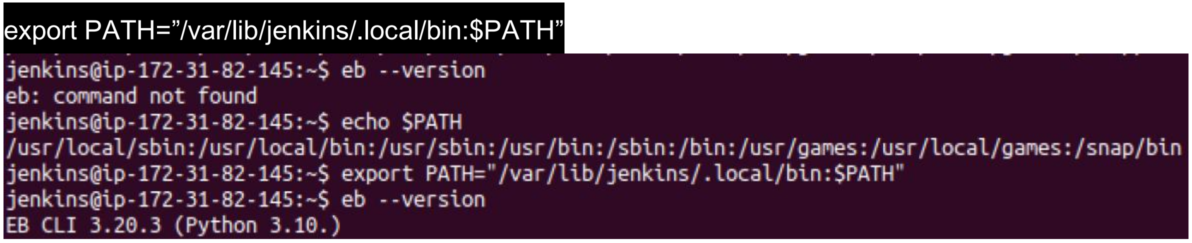
```
jenkins@ip-172-31-82-145:~$ pip install awsebcli --upgrade --user
Collecting awsebcli
  Downloading awsebcli-3.20.3.tar.gz (259 kB)
     ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 259.2/259.2 KB 8.0 MB/s eta 0:00:00
  Preparing metadata (setup.py) ... done
Requirement already satisfied: PyYAML<5.5,>=5.3.1 in /usr/lib/python3/dist-packages (from awsebcli)
(5.4.1)
Collecting blessed>=1.9.5
  Downloading blessed-1.19.1-py2.py3-none-any.whl (58 kB)
     ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 58.0/58.0 KB 7.4 MB/s eta 0:00:00
```

    - Installation will complete, but there may be warning messages about the PATH variable not including the bin folder the package is installed in:



```
  WARNING: The scripts futurize and pasteurize are installed in '/var/lib/jenkins/.local/bin' which is not on PATH.
  Consider adding this directory to PATH or, if you prefer to suppress this warning, use --no-warn-script-location.
  WARNING: The script docker-compose is installed in '/var/lib/jenkins/.local/bin' which is not on PATH.
  Consider adding this directory to PATH or, if you prefer to suppress this warning, use --no-warn-script-location.
  WARNING: The scripts eb and ebp are installed in '/var/lib/jenkins/.local/bin' which is not on PATH.
  Consider adding this directory to PATH or, if you prefer to suppress this warning, use --no-warn-script-location.
Successfully installed awsebcli-3.20.3 blessed-1.19.1 botocore-1.23.54 cached-property-1.5.2 cement-2.8.2 cffi-1.15.1 colorama-0.4.
3 docker-4.4.4 docker-compose-1.25.5 dockerpty-0.4.1 docopt-0.6.2 future-0.16.0 jmespath-0.10.0 paramiko-2.11.0 pathspec-0.9.0 pycp
arser-2.21 pynacl-1.5.0 python-dateutil-2.8.2 semantic_version-2.8.5 six-1.14.0 termcolor-1.1.0 texttable-1.6.4 wcwidth-0.1.9 webso
cket-client-0.59.0
```

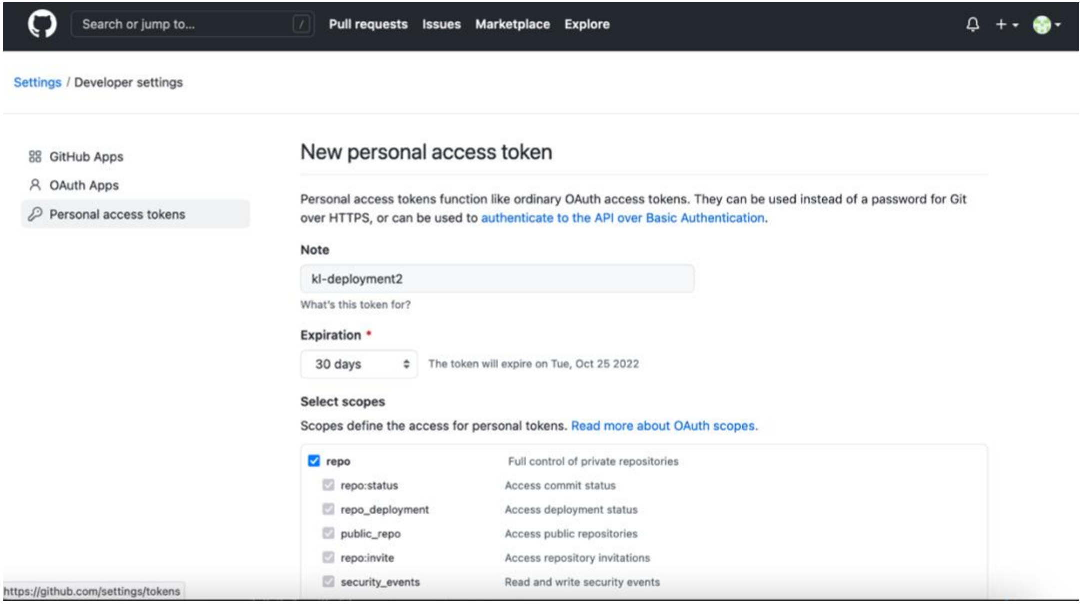
    - To resolve the warning message, run:
      `export PATH="/var/lib/jenkins/.local/bin:$PATH"`



```
jenkins@ip-172-31-82-145:~$ eb --version
eb: command not found
jenkins@ip-172-31-82-145:~$ echo $PATH
/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/games:/snap/bin
jenkins@ip-172-31-82-145:~$ export PATH="/var/lib/jenkins/.local/bin:$PATH"
jenkins@ip-172-31-82-145:~$ eb --version
EB CLI 3.20.3 (Python 3.10.)
```

Generate Access Token to Connect GitHub to Jenkins Server

- First, fork the Deployment 2 repo
- Then, navigate to:
    - Settings > Developer settings > Personal access tokens > Generate new token
- Under "Select scopes" - select **repo** and **admin:repo_hook:**



New personal access token

Personal access tokens function like ordinary OAuth access tokens. They can be used instead of a password for Git over HTTPS, or can be used to authenticate to the API over Basic Authentication.

Note

kl-deployment2

What's this token for?

Expiration *

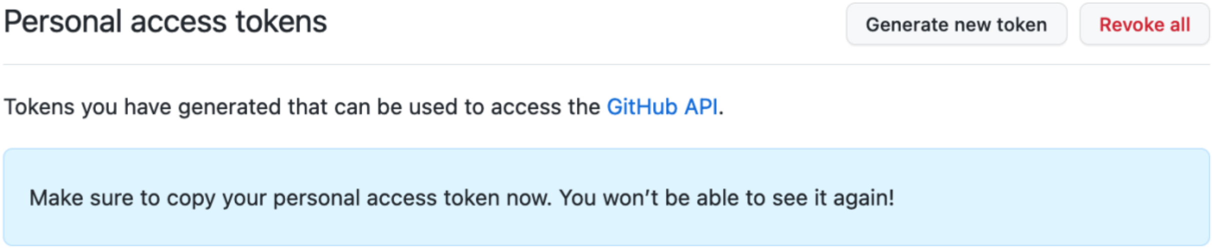
30 days — The token will expire on Tue, Oct 25 2022

Select scopes

Scopes define the access for personal tokens. Read more about OAuth scopes.

☑ repo	Full control of private repositories
☑ repo:status	Access commit status
☑ repo_deployment	Access deployment status
☑ public_repo	Access public repositories
☑ repo:invite	Access repository invitations
☑ security_events	Read and write security events

- Generate and copy the personal access token:



Personal access tokens

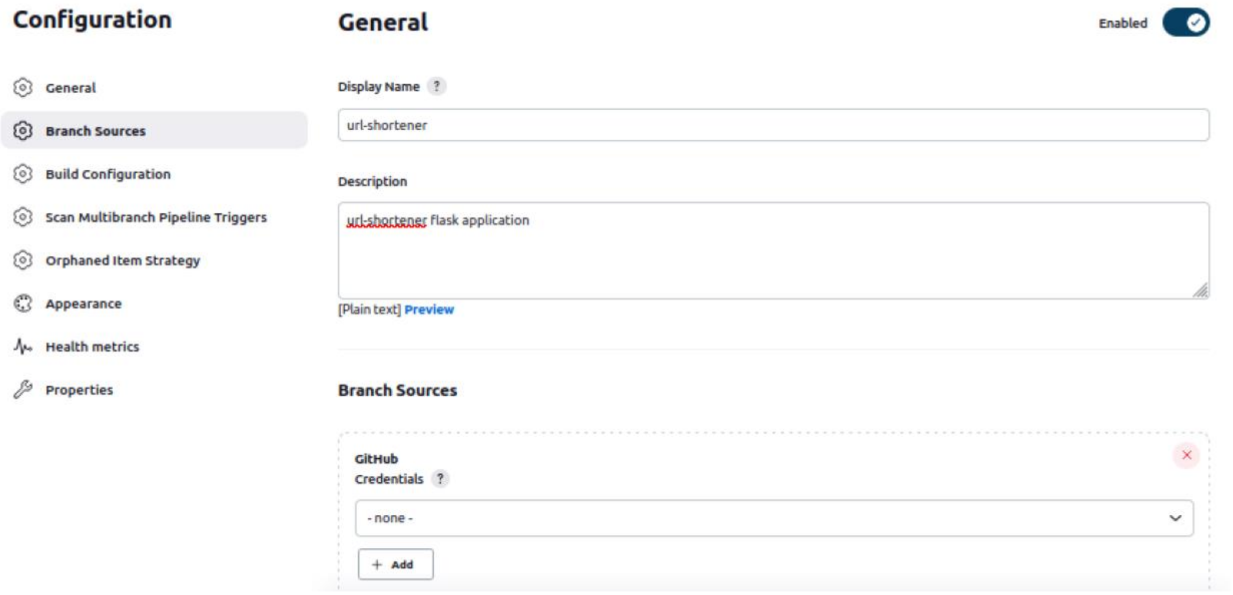
Tokens you have generated that can be used to access the GitHub API.

Make sure to copy your personal access token now. You won't be able to see it again!

Deployment 2 Documentation
Caden Hong

Connect GitHub Repo to Jenkins via Multibranch Build

- Go to http://<ec2-public-ip>:8080 and login as admin user
- Dashboard > New Item > Multibranch pipeline
- Under Branch sources, add GitHub credentials:



General

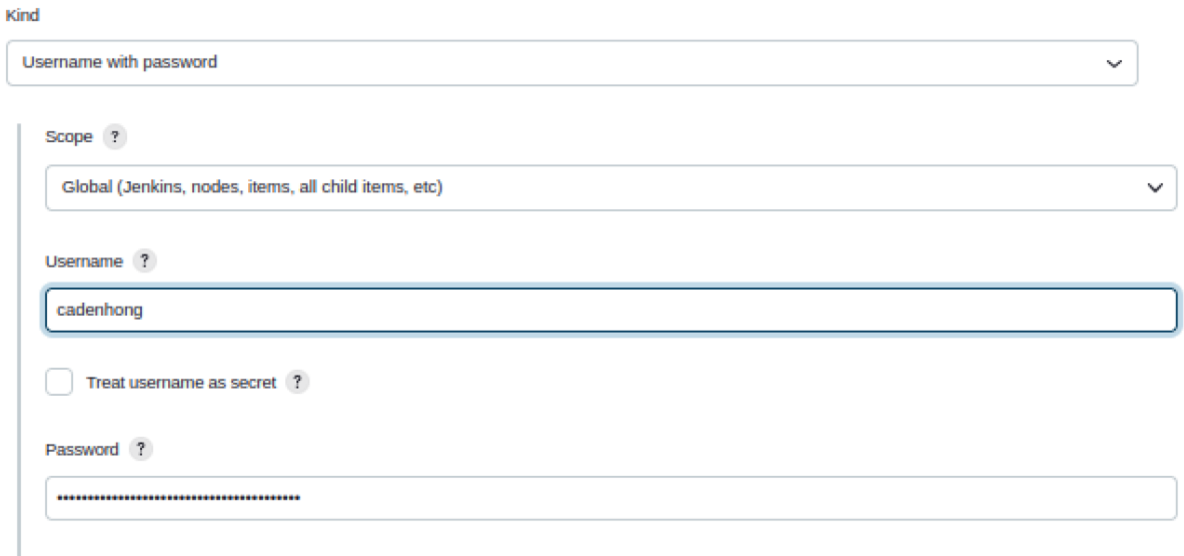
Display Name: url-shortener

Description: url-shortener flask application

Branch Sources

GitHub
Credentials: - none -

- Enter GitHub username and generated access token as the password:



Kind: Username with password

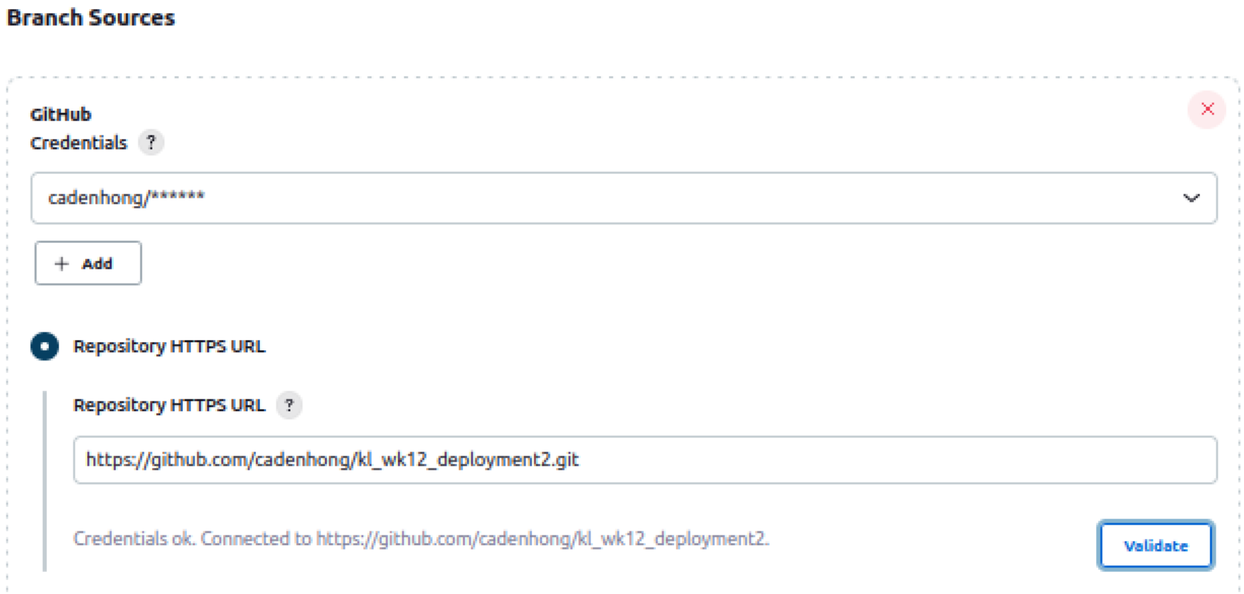
Scope: Global (Jenkins, nodes, items, all child items, etc)

Username: cadenhong

□ Treat username as secret

Password: ••

- Select the entered credentials and enter the forked repo URL, then validate connection:



Branch Sources

GitHub

Credentials ?

cadenhong/******

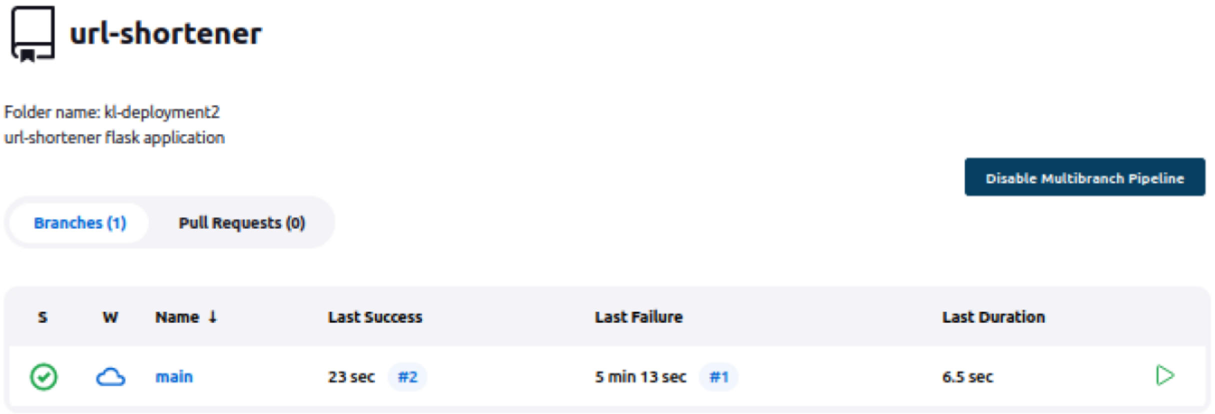
● Repository HTTPS URL

Repository HTTPS URL ?

https://github.com/cadenhong/kl_wk12_deployment2.git

Credentials ok. Connected to https://github.com/cadenhong/kl_wk12_deployment2.

- After clicking Apply then Save, there will be a build happening:

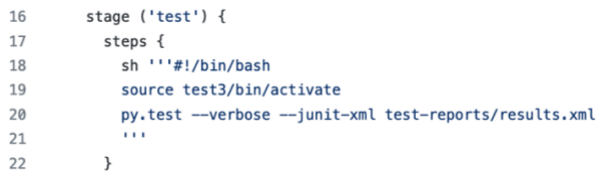


url-shortener

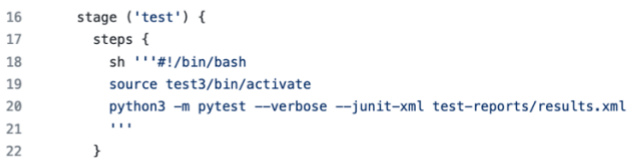
Folder name: kl-deployment2
url-shortener flask application

S	W	Name ↓	Last Success	Last Failure	Last Duration	
✓	☁	main	23 sec #2	5 min 13 sec #1	6.5 sec	▷

- ***** The test stage kept failing, so I had to go into Jenkinsfile and change line 20 to activate the pytest module for it to recognize the test file***:**



```
16        stage ('test') {
17          steps {
18            sh '''#!/bin/bash
19            source test3/bin/activate
20            py.test --verbose --junit-xml test-reports/results.xml
21            '''
22          }
```

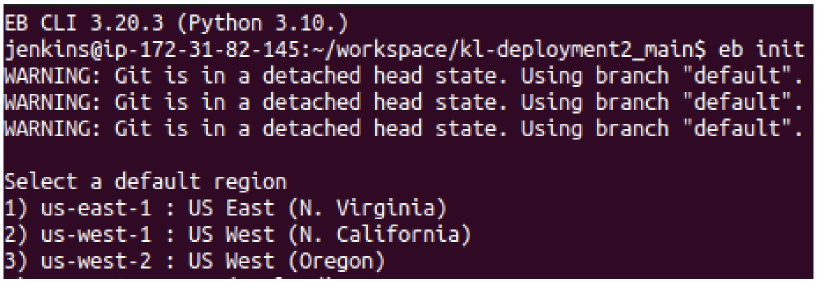


```
16        stage ('test') {
17          steps {
18            sh '''#!/bin/bash
19            source test3/bin/activate
20            python3 -m pytest --verbose --junit-xml test-reports/results.xml
21            '''
22          }
```

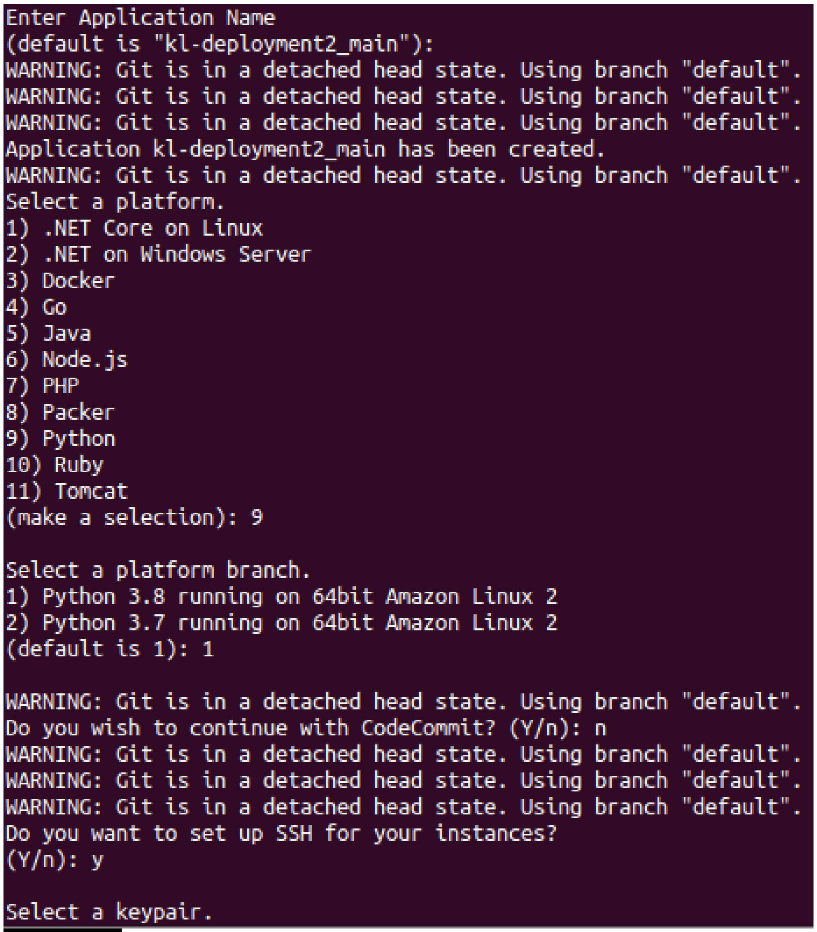
BEFORE *AFTER*

Deploy the url-shortener Application Using Elastic Beanstalk CLI (as a Jenkins user)

- `sudo su - jenkins -s /bin/bash` to switch to the jenkins user’s bash terminal
- `cd workspace/<project-name>`
- `eb init`
- Continue with configuration as described below:
  - Select: us-east-1
  - Press enter
  - Select: Python
  - Select: (The latest version of python available)
  - Select: N (for CodeCommit)

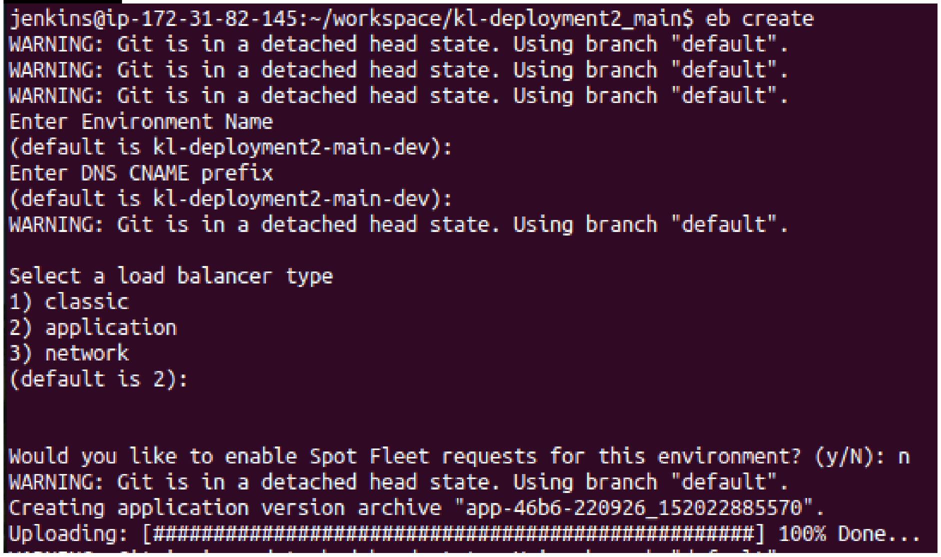


```
EB CLI 3.20.3 (Python 3.10.)
jenkins@ip-172-31-82-145:~/workspace/kl-deployment2_main$ eb init
WARNING: Git is in a detached head state. Using branch "default".
WARNING: Git is in a detached head state. Using branch "default".
WARNING: Git is in a detached head state. Using branch "default".

Select a default region
1) us-east-1 : US East (N. Virginia)
2) us-west-1 : US West (N. California)
3) us-west-2 : US West (Oregon)
```



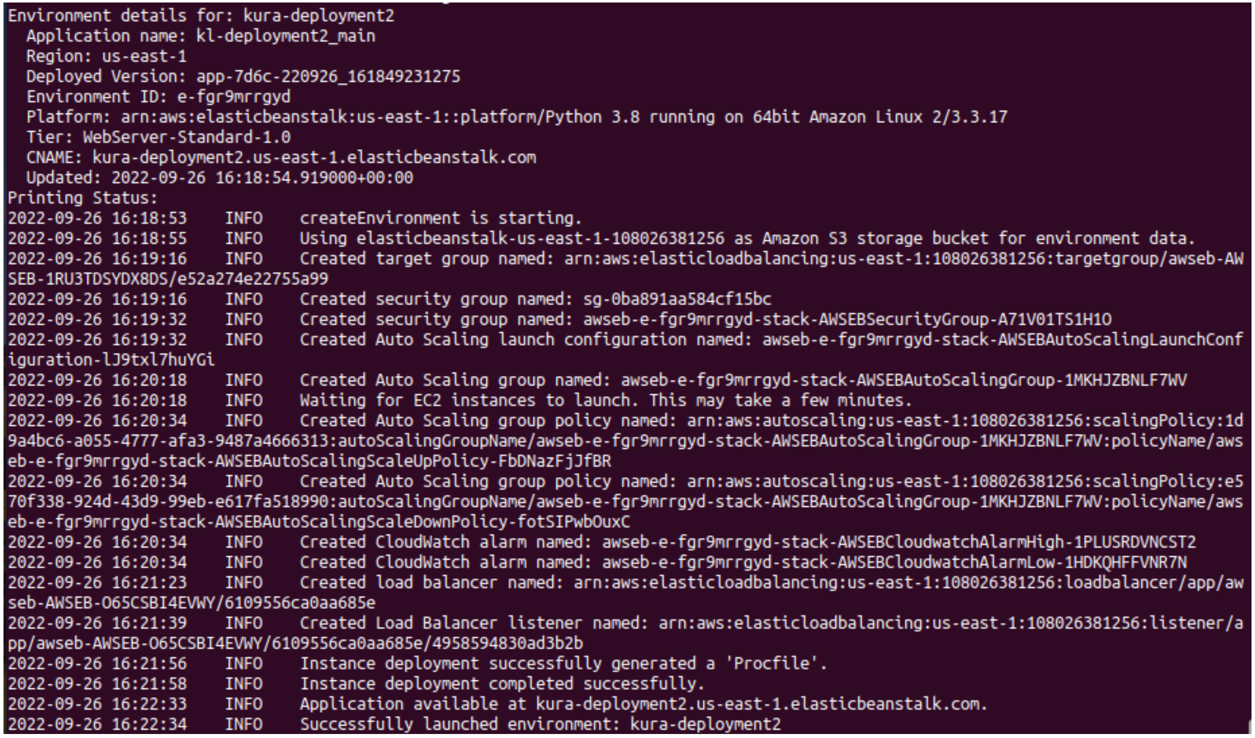
```
Enter Application Name
(default is "kl-deployment2_main"):
WARNING: Git is in a detached head state. Using branch "default".
WARNING: Git is in a detached head state. Using branch "default".
WARNING: Git is in a detached head state. Using branch "default".
Application kl-deployment2_main has been created.
WARNING: Git is in a detached head state. Using branch "default".
Select a platform.
1) .NET Core on Linux
2) .NET on Windows Server
3) Docker
4) Go
5) Java
6) Node.js
7) PHP
8) Packer
9) Python
10) Ruby
11) Tomcat
(make a selection): 9

Select a platform branch.
1) Python 3.8 running on 64bit Amazon Linux 2
2) Python 3.7 running on 64bit Amazon Linux 2
(default is 1): 1

WARNING: Git is in a detached head state. Using branch "default".
Do you wish to continue with CodeCommit? (Y/n): n
WARNING: Git is in a detached head state. Using branch "default".
WARNING: Git is in a detached head state. Using branch "default".
WARNING: Git is in a detached head state. Using branch "default".
Do you want to set up SSH for your instances?
(Y/n): y

Select a keypair.
```

- `eb create` – select default for first 3 questions and no for Spot Fleet:



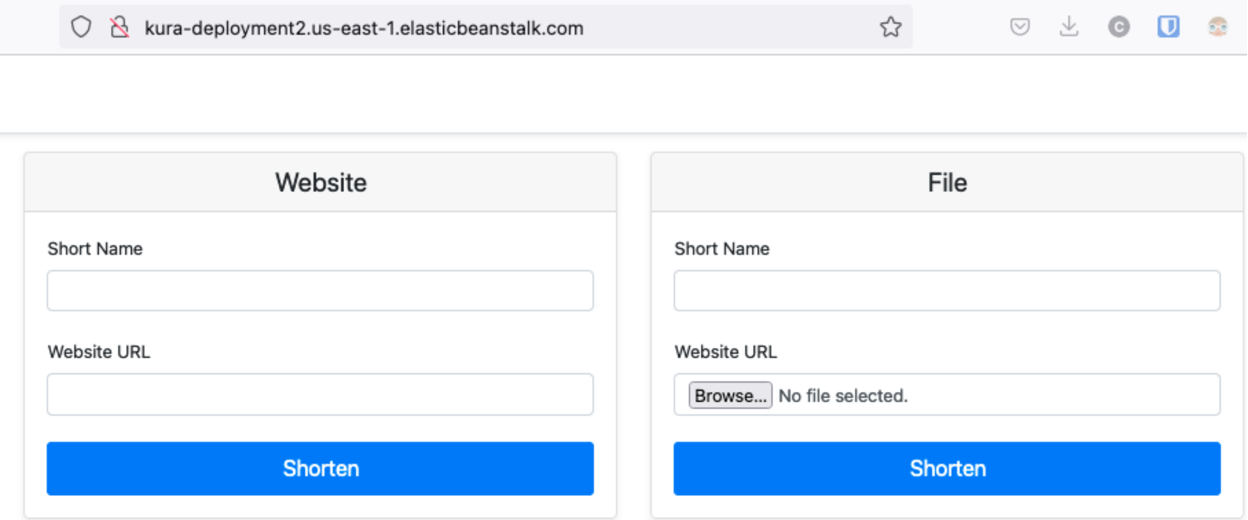
```
jenkins@ip-172-31-82-145:~/workspace/kl-deployment2_main$ eb create
WARNING: Git is in a detached head state. Using branch "default".
WARNING: Git is in a detached head state. Using branch "default".
WARNING: Git is in a detached head state. Using branch "default".
Enter Environment Name
(default is kl-deployment2-main-dev):
Enter DNS CNAME prefix
(default is kl-deployment2-main-dev):
WARNING: Git is in a detached head state. Using branch "default".

Select a load balancer type
1) classic
2) application
3) network
(default is 2):


Would you like to enable Spot Fleet requests for this environment? (y/N): n
WARNING: Git is in a detached head state. Using branch "default".
Creating application version archive "app-46b6-220926_152022885570".
Uploading: [##################################################] 100% Done...
```

- Elastic Beanstalk creating the environment and application:



```
Environment details for: kura-deployment2
  Application name: kl-deployment2_main
  Region: us-east-1
  Deployed Version: app-7d6c-220926_161849231275
  Environment ID: e-fgr9mrrgyd
  Platform: arn:aws:elasticbeanstalk:us-east-1::platform/Python 3.8 running on 64bit Amazon Linux 2/3.3.17
  Tier: WebServer-Standard-1.0
  CNAME: kura-deployment2.us-east-1.elasticbeanstalk.com
  Updated: 2022-09-26 16:18:54.919000+00:00
Printing Status:
2022-09-26 16:18:53    INFO    createEnvironment is starting.
2022-09-26 16:18:55    INFO    Using elasticbeanstalk-us-east-1-108026381256 as Amazon S3 storage bucket for environment data.
2022-09-26 16:19:16    INFO    Created target group named: arn:aws:elasticloadbalancing:us-east-1:108026381256:targetgroup/awseb-AW
SEB-1RU3TDSYDX8DS/e52a274e22755a99
2022-09-26 16:19:16    INFO    Created security group named: sg-0ba891aa584cf15bc
2022-09-26 16:19:32    INFO    Created security group named: awseb-e-fgr9mrrgyd-stack-AWSEBSecurityGroup-A71V01TS1H1O
2022-09-26 16:19:32    INFO    Created Auto Scaling launch configuration named: awseb-e-fgr9mrrgyd-stack-AWSEBAutoScalingLaunchConf
iguration-lJ9txl7huYGi
2022-09-26 16:20:18    INFO    Created Auto Scaling group named: awseb-e-fgr9mrrgyd-stack-AWSEBAutoScalingGroup-1MKHJZBNLF7WV
2022-09-26 16:20:18    INFO    Waiting for EC2 instances to launch. This may take a few minutes.
2022-09-26 16:20:34    INFO    Created Auto Scaling group policy named: arn:aws:autoscaling:us-east-1:108026381256:scalingPolicy:1d
9a4bc6-a055-4777-afa3-9487a4666313:autoScalingGroupName/awseb-e-fgr9mrrgyd-stack-AWSEBAutoScalingGroup-1MKHJZBNLF7WV:policyName/aws
eb-e-fgr9mrrgyd-stack-AWSEBAutoScalingScaleUpPolicy-FbDNazFjJfBR
2022-09-26 16:20:34    INFO    Created Auto Scaling group policy named: arn:aws:autoscaling:us-east-1:108026381256:scalingPolicy:e5
70f338-924d-43d9-99eb-e617fa518990:autoScalingGroupName/awseb-e-fgr9mrrgyd-stack-AWSEBAutoScalingGroup-1MKHJZBNLF7WV:policyName/aws
eb-e-fgr9mrrgyd-stack-AWSEBAutoScalingScaleDownPolicy-fotSIPwbOuxC
2022-09-26 16:20:34    INFO    Created CloudWatch alarm named: awseb-e-fgr9mrrgyd-stack-AWSEBCloudwatchAlarmHigh-1PLUSRDVNCST2
2022-09-26 16:20:34    INFO    Created CloudWatch alarm named: awseb-e-fgr9mrrgyd-stack-AWSEBCloudwatchAlarmLow-1HDKQHFFVNR7N
2022-09-26 16:21:23    INFO    Created load balancer named: arn:aws:elasticloadbalancing:us-east-1:108026381256:loadbalancer/app/aw
seb-AWSEB-O65CSBI4EVWY/6109556ca0aa685e
2022-09-26 16:21:39    INFO    Created Load Balancer listener named: arn:aws:elasticloadbalancing:us-east-1:108026381256:listener/a
pp/awseb-AWSEB-O65CSBI4EVWY/6109556ca0aa685e/4958594830ad3b2b
2022-09-26 16:21:56    INFO    Instance deployment successfully generated a 'Procfile'.
2022-09-26 16:21:58    INFO    Instance deployment completed successfully.
2022-09-26 16:22:33    INFO    Application available at kura-deployment2.us-east-1.elasticbeanstalk.com.
2022-09-26 16:22:34    INFO    Successfully launched environment: kura-deployment2
```

- **Application deployment successful:**



kura-deployment2.us-east-1.elasticbeanstalk.com

Website

Short Name

Website URL

Shorten

File

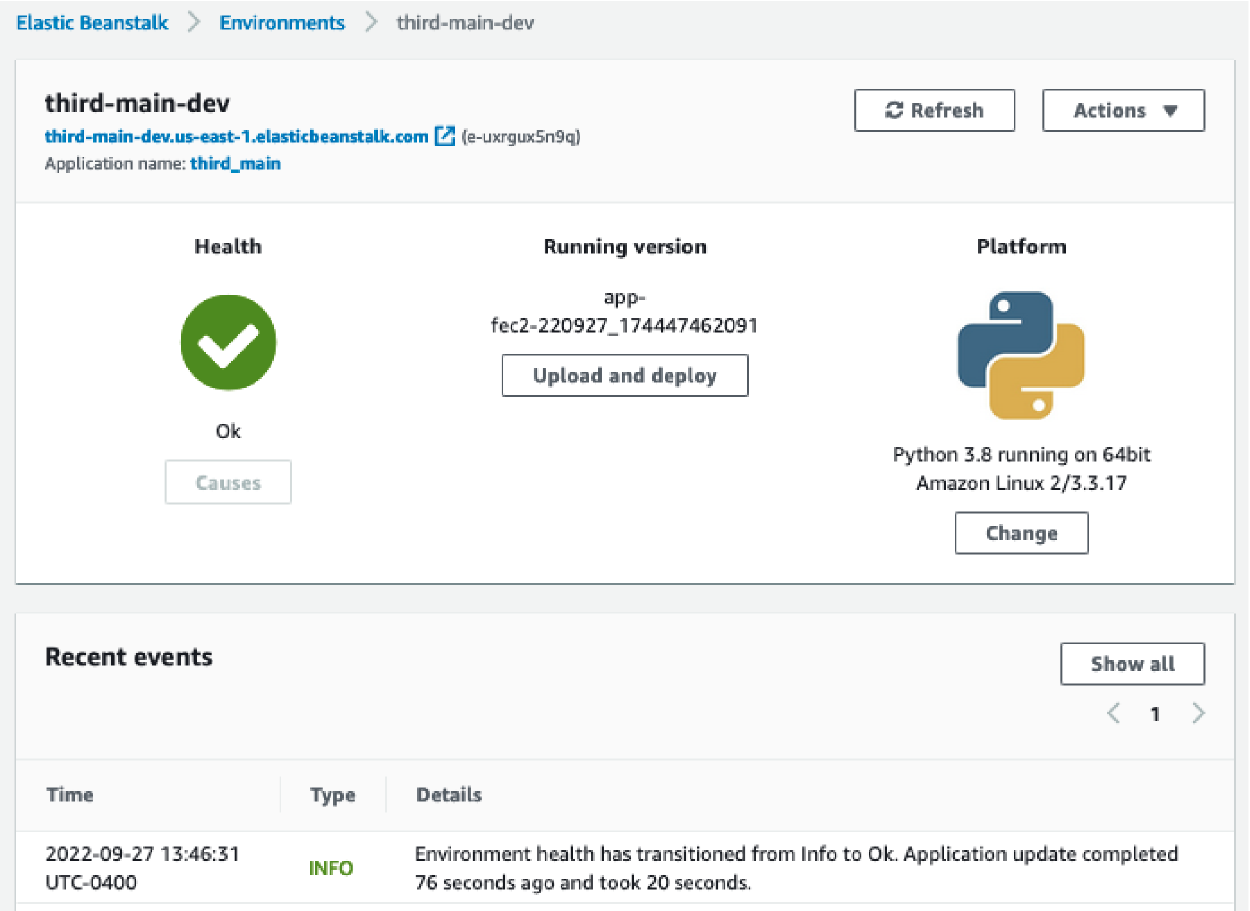
Short Name

Website URL

Browse... No file selected.

Shorten

- You can check Elastic Beanstalk > Environments to check the status of the running environment and application:



Elastic Beanstalk > Environments > third-main-dev

third-main-dev

third-main-dev.us-east-1.elasticbeanstalk.com (e-uxrgux5n9q)

Application name: third_main

Health: Ok

Running version: app-fec2-220927_174447462091

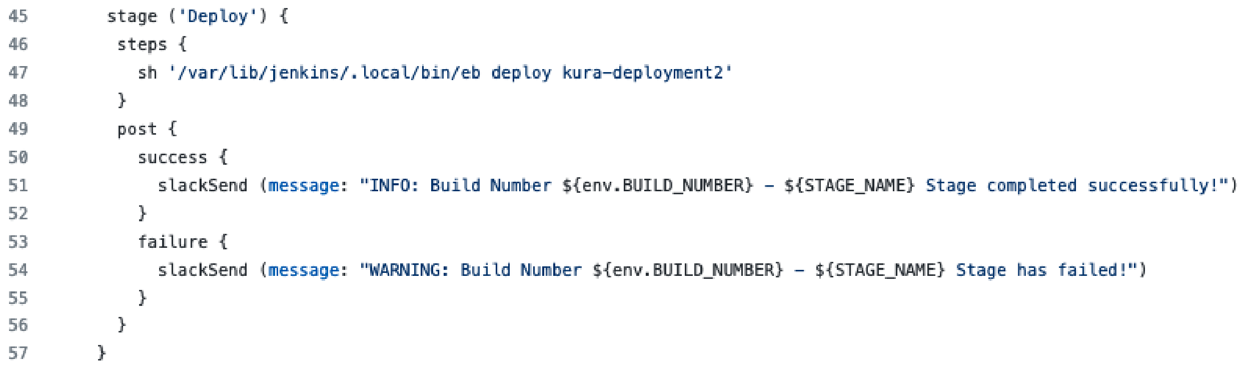
Platform: Python 3.8 running on 64bit Amazon Linux 2/3.3.17

Recent events

Time	Type	Details
2022-09-27 13:46:31 UTC-0400	INFO	Environment health has transitioned from Info to Ok. Application update completed 76 seconds ago and took 20 seconds.

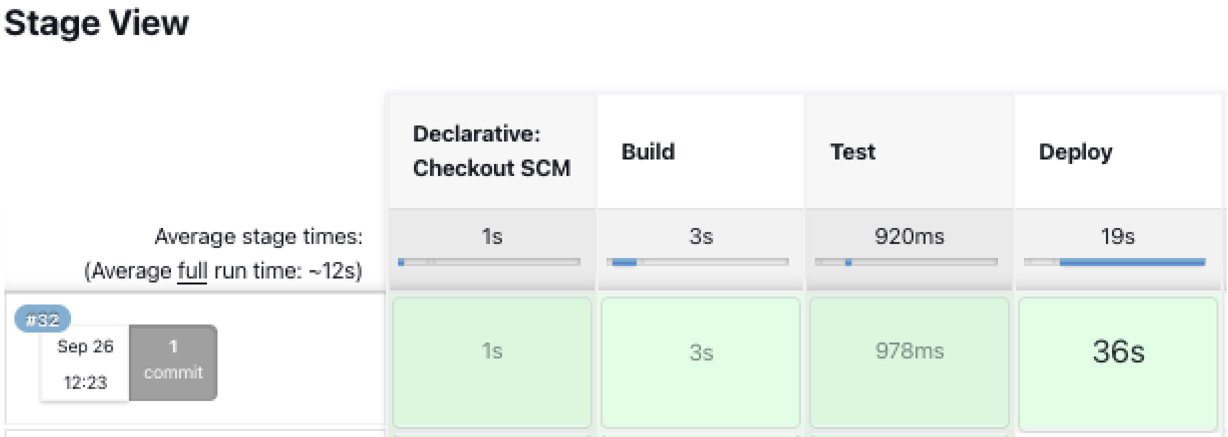
Adding “Deploy” Stage to Pipeline

- Edit the forked repo’s Jenkinsfile to include a Deploy stage:



```
    stage ('Deploy') {
     steps {
       sh '/var/lib/jenkins/.local/bin/eb deploy kura-deployment2'
     }
     post {
       success {
         slackSend (message: "INFO: Build Number ${env.BUILD_NUMBER} - ${STAGE_NAME} Stage completed successfully!")
       }
       failure {
         slackSend (message: "WARNING: Build Number ${env.BUILD_NUMBER} - ${STAGE_NAME} Stage has failed!")
       }
     }
   }
```

- Confirm that build was successful on Jenkins pipeline:



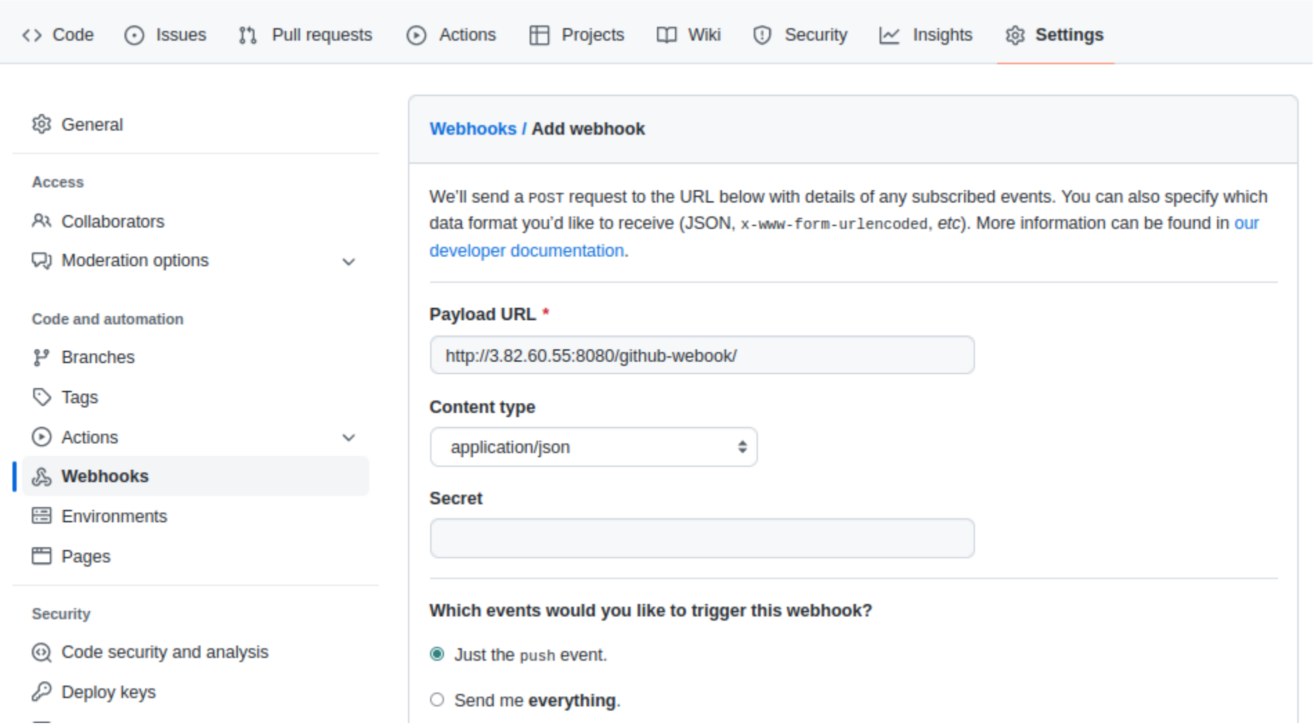
Stage View

	Declarative: Checkout SCM	Build	Test	Deploy
Average stage times: (Average full run time: ~12s)	1s	3s	920ms	19s
#32 Sep 26 12:23 1 commit	1s	3s	978ms	36s

Modifying/Adding to the Pipeline

1. Adding Webhook to Automate Deployment

- Navigate to GitHub repo > Settings > Webhooks
  - For Payload URL, enter http://<ec2-public-ip>:8080/github-webhook/
  - Content type should be application/json



Webhooks / Add webhook

We'll send a POST request to the URL below with details of any subscribed events. You can also specify which data format you'd like to receive (JSON, x-www-form-urlencoded, *etc*). More information can be found in our developer documentation.

Payload URL *

http://3.82.60.55:8080/github-webook/

Content type

application/json

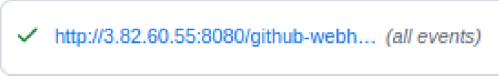
Secret

Which events would you like to trigger this webhook?

● Just the push event.

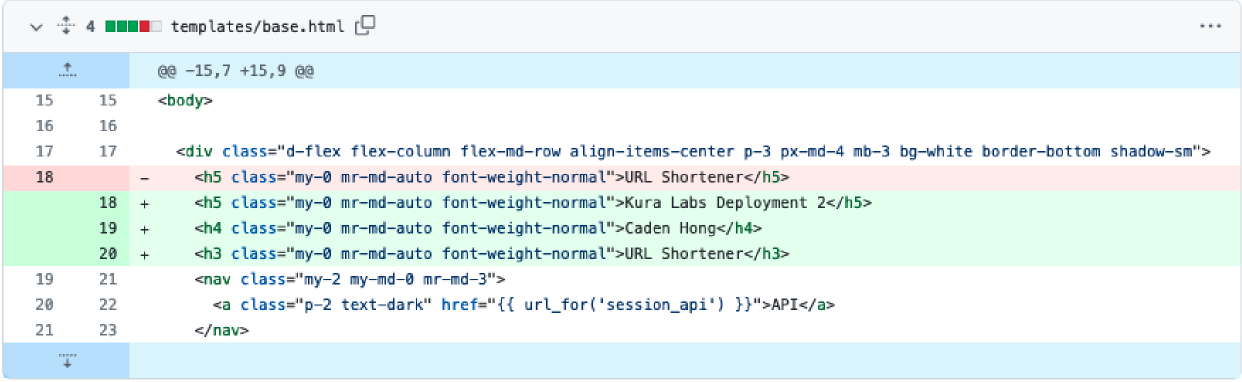
○ Send me **everything**.

- Scan Repository on Jenkins to activate webhook:



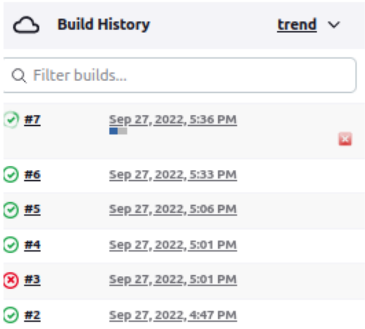
✓ http://3.82.60.55:8080/github-webh… *(all events)*

- To test the automated deployment pipeline, make changes to the application – in this case, I changed the text displayed on the front-end:



```
4 templates/base.html
@@ -15,7 +15,9 @@
  <body>

    <div class="d-flex flex-column flex-md-row align-items-center p-3 px-md-4 mb-3 bg-white border-bottom shadow-sm">
-     <h5 class="my-0 mr-md-auto font-weight-normal">URL Shortener</h5>
+     <h5 class="my-0 mr-md-auto font-weight-normal">Kura Labs Deployment 2</h5>
+     <h4 class="my-0 mr-md-auto font-weight-normal">Caden Hong</h4>
+     <h3 class="my-0 mr-md-auto font-weight-normal">URL Shortener</h3>
      <nav class="my-2 my-md-0 mr-md-3">
        <a class="p-2 text-dark" href="{{ url_for('session_api') }}">API</a>
      </nav>
```

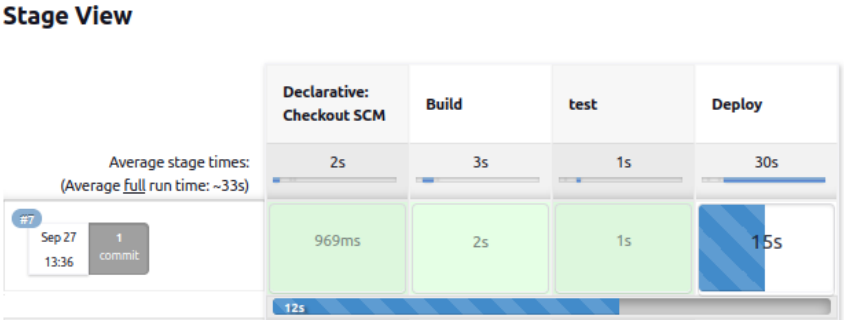
- Once code change is added, committed, and pushed to the repository, Jenkins will automatically start going through the different stages to build again:



Build History trend

Filter builds...

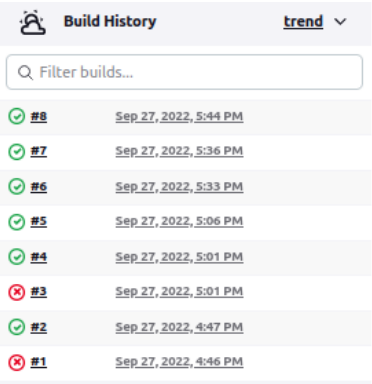
#7	Sep 27, 2022, 5:36 PM
#6	Sep 27, 2022, 5:33 PM
#5	Sep 27, 2022, 5:06 PM
#4	Sep 27, 2022, 5:01 PM
#3	Sep 27, 2022, 5:01 PM
#2	Sep 27, 2022, 4:47 PM



Stage View

	Declarative: Checkout SCM	Build	test	Deploy
Average stage times: (Average full run time: ~33s)	2s	3s	1s	30s
#7 Sep 27 13:36 1 commit	969ms	2s	1s	15s

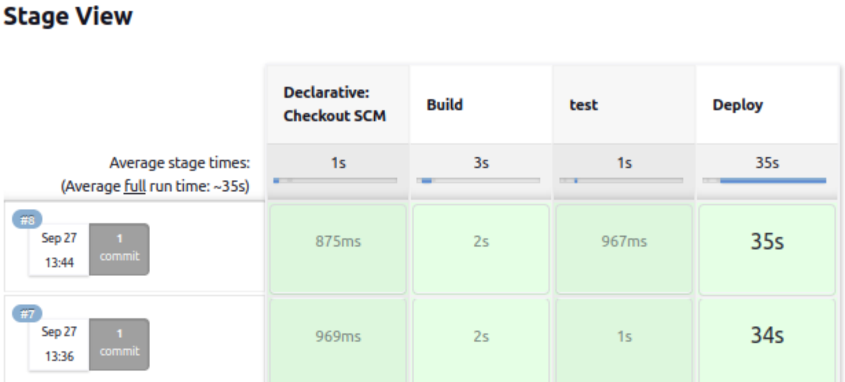
12s



Build History trend

Filter builds...

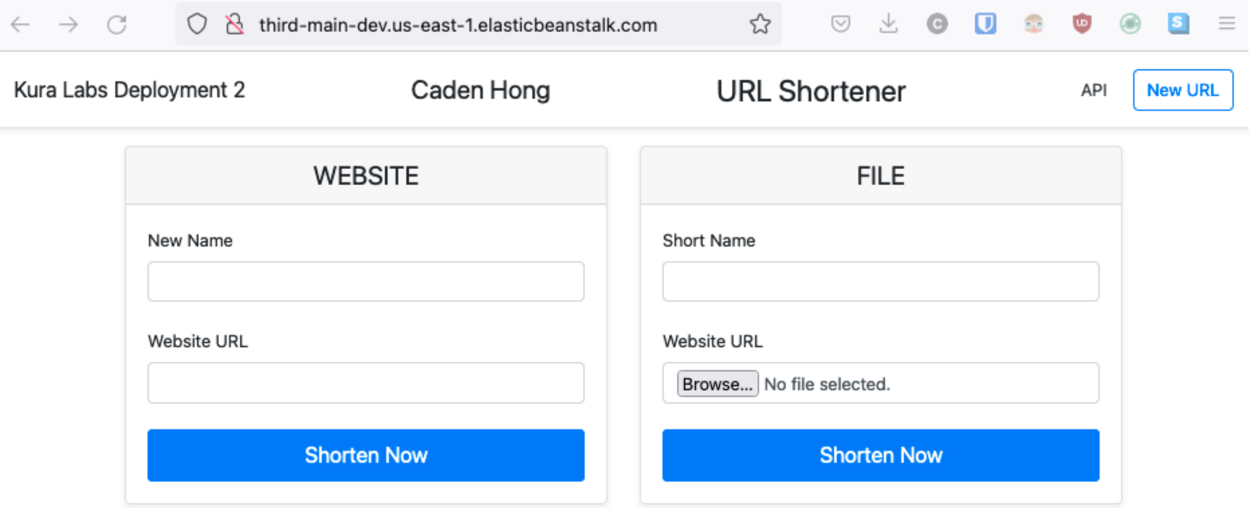
#8	Sep 27, 2022, 5:44 PM
#7	Sep 27, 2022, 5:36 PM
#6	Sep 27, 2022, 5:33 PM
#5	Sep 27, 2022, 5:06 PM
#4	Sep 27, 2022, 5:01 PM
#3	Sep 27, 2022, 5:01 PM
#2	Sep 27, 2022, 4:47 PM
#1	Sep 27, 2022, 4:46 PM



Stage View

	Declarative: Checkout SCM	Build	test	Deploy
Average stage times: (Average full run time: ~35s)	1s	3s	1s	35s
#8 Sep 27 13:44 1 commit	875ms	2s	967ms	35s
#7 Sep 27 13:36 1 commit	969ms	2s	1s	34s

- Once the Deploy stage is completed, refresh the app URL and see the changes made:



third-main-dev.us-east-1.elasticbeanstalk.com

Kura Labs Deployment 2 Caden Hong URL Shortener

WEBSITE

New Name

Website URL

FILE

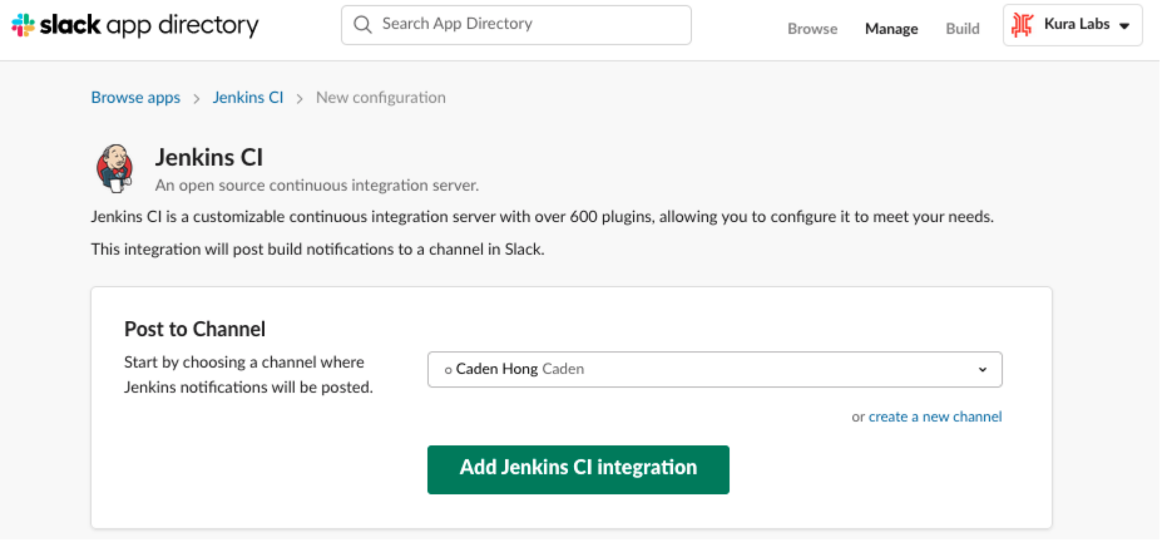
Short Name

Website URL

No file selected.

2A. Adding Slack Notification on Jenkins

- On Slack app directory, search Jenkins CI and add to Slack (to the specific Channel you want):



Browse apps > Jenkins CI > New configuration

Jenkins CI

An open source continuous integration server.

Jenkins CI is a customizable continuous integration server with over 600 plugins, allowing you to configure it to meet your needs.

This integration will post build notifications to a channel in Slack.

Post to Channel

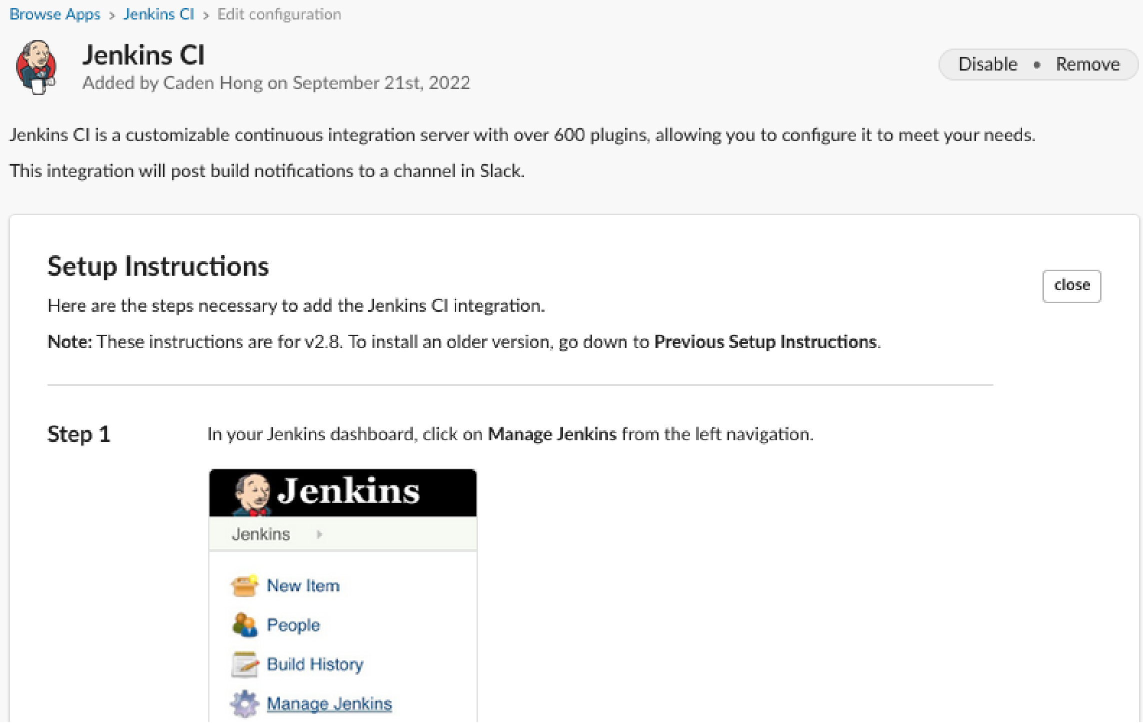
Start by choosing a channel where Jenkins notifications will be posted.

o Caden Hong Caden

or create a new channel

Add Jenkins CI integration

- Follow instructions (take note of the **Integration Token Credential ID** provided in Step 3:



Browse Apps > Jenkins CI > Edit configuration

Jenkins CI

Added by Caden Hong on September 21st, 2022

Jenkins CI is a customizable continuous integration server with over 600 plugins, allowing you to configure it to meet your needs.

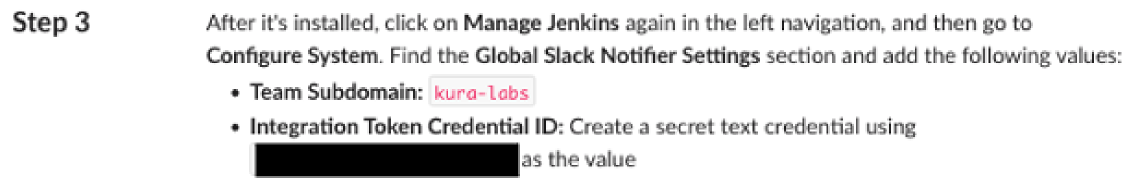
This integration will post build notifications to a channel in Slack.

Setup Instructions

Here are the steps necessary to add the Jenkins CI integration.

Note: These instructions are for v2.8. To install an older version, go down to **Previous Setup Instructions**.

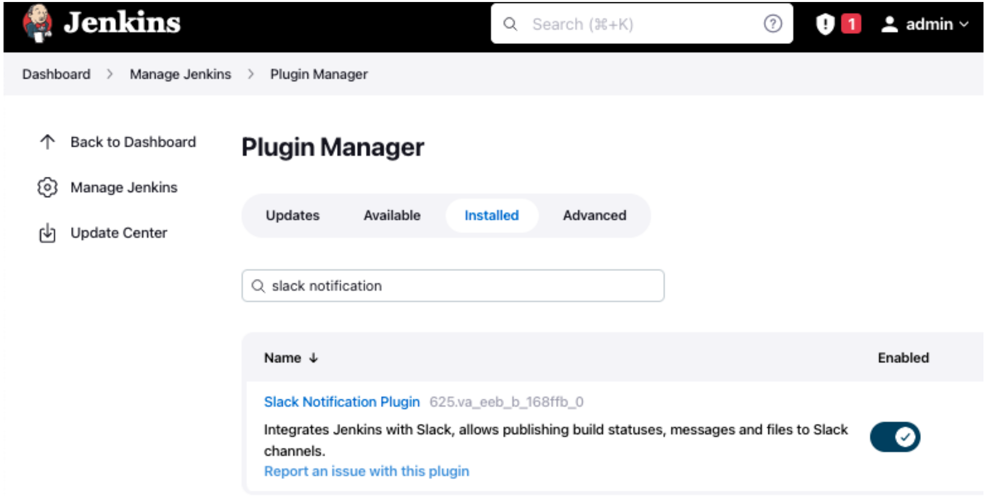
Step 1 In your Jenkins dashboard, click on **Manage Jenkins** from the left navigation.



Step 3 After it's installed, click on **Manage Jenkins** again in the left navigation, and then go to **Configure System**. Find the **Global Slack Notifier Settings** section and add the following values:

- **Team Subdomain:** `kura-labs`
- **Integration Token Credential ID:** Create a secret text credential using [redacted] as the value

- Go to Jenkins > Dashboard > Manage Jenkins > Plugin Manager > Available > Search "Slack Notification"
- Install the plugin – it should show up under Installed after completed:

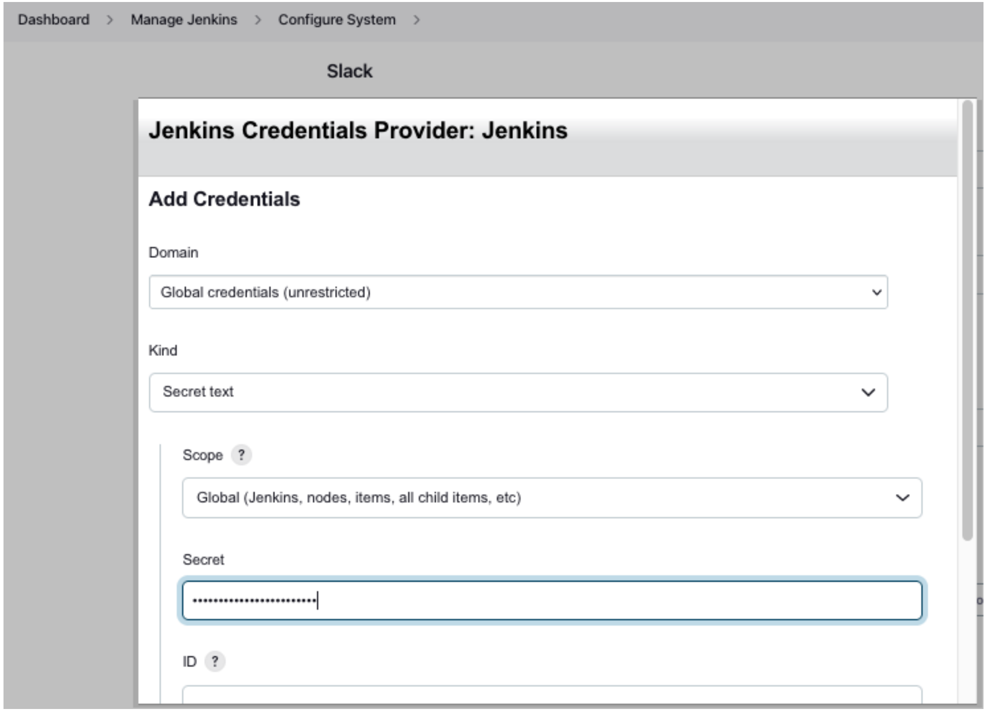


Plugin Manager

slack notification

Name ↓	Enabled
Slack Notification Plugin 625.va_eeb_b_168ffb_0 Integrates Jenkins with Slack, allows publishing build statuses, messages and files to Slack channels. Report an issue with this plugin	✓

- Dashboard > Manage Jenkins > Configure System > Slack > Add workspace name > Add credential as "Secret Text"
- Enter the provided **Integration Token Credential ID**:



Jenkins Credentials Provider: Jenkins

Add Credentials

Domain: Global credentials (unrestricted)

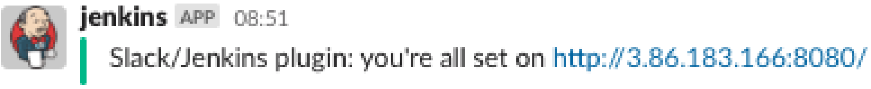
Kind: Secret text

Scope ?: Global (Jenkins, nodes, items, all child items, etc)

Secret: ••••••••••••••••••••••••

ID ?

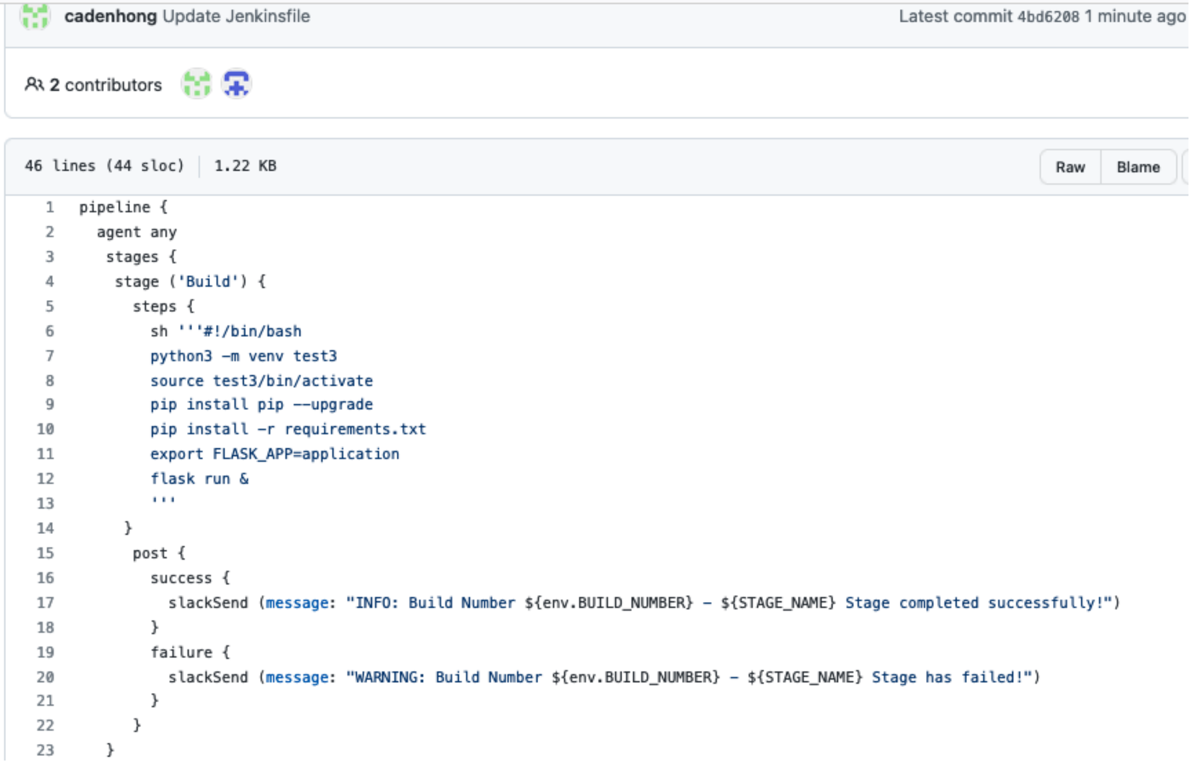
- You will receive a Slack notification once it is all set:



jenkins APP 08:51
Slack/Jenkins plugin: you're all set on http://3.86.183.166:8080/

2B. Slack Notification Based on the Status of Build Pipeline

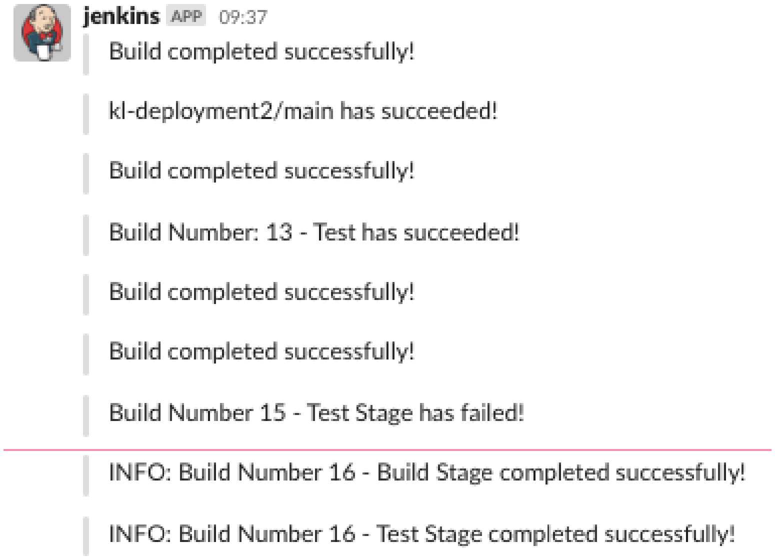
- Add slackSend function inside Jenkinsfile



cadenhong Update Jenkinsfile
Latest commit 4bd6208 1 minute ago
2 contributors
46 lines (44 sloc) | 1.22 KB
Raw
Blame

```
pipeline {
  agent any
   stages {
    stage ('Build') {
      steps {
        sh '''#!/bin/bash
        python3 -m venv test3
        source test3/bin/activate
        pip install pip --upgrade
        pip install -r requirements.txt
        export FLASK_APP=application
        flask run &
        '''
     }
      post {
        success {
          slackSend (message: "INFO: Build Number ${env.BUILD_NUMBER} - ${STAGE_NAME} Stage completed successfully!")
        }
        failure {
          slackSend (message: "WARNING: Build Number ${env.BUILD_NUMBER} - ${STAGE_NAME} Stage has failed!")
        }
      }
   }
```

- Slack notifications will be sent each time Jenkins scans the repository:



Build completed successfully!

kl-deployment2/main has succeeded!

Build completed successfully!

Build Number: 13 - Test has succeeded!

Build completed successfully!

Build completed successfully!

Build Number 15 - Test Stage has failed!

INFO: Build Number 16 - Build Stage completed successfully!

INFO: Build Number 16 - Test Stage completed successfully!