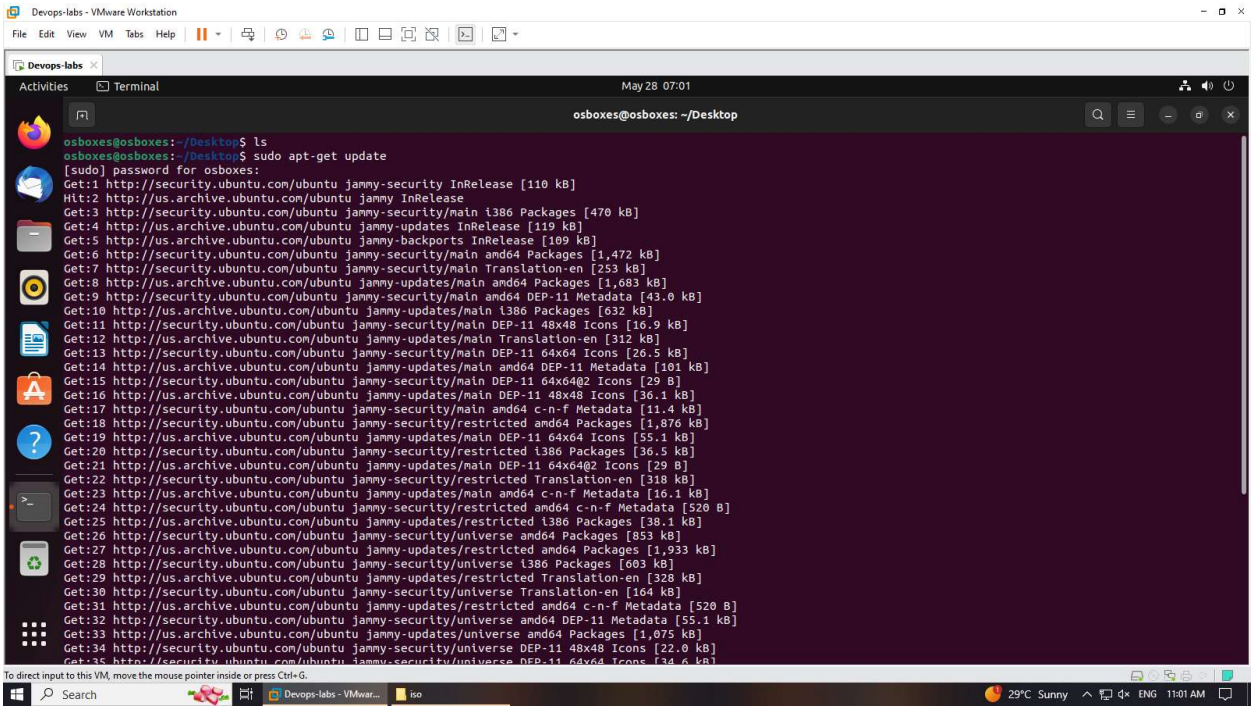
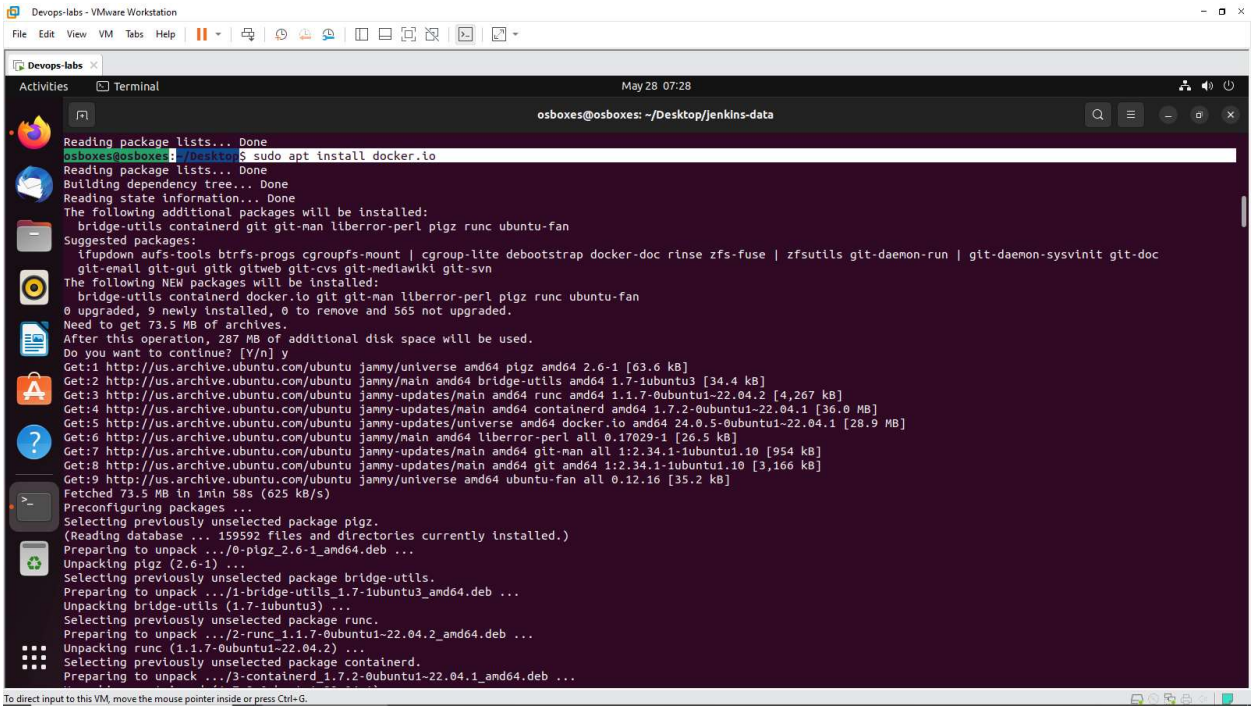
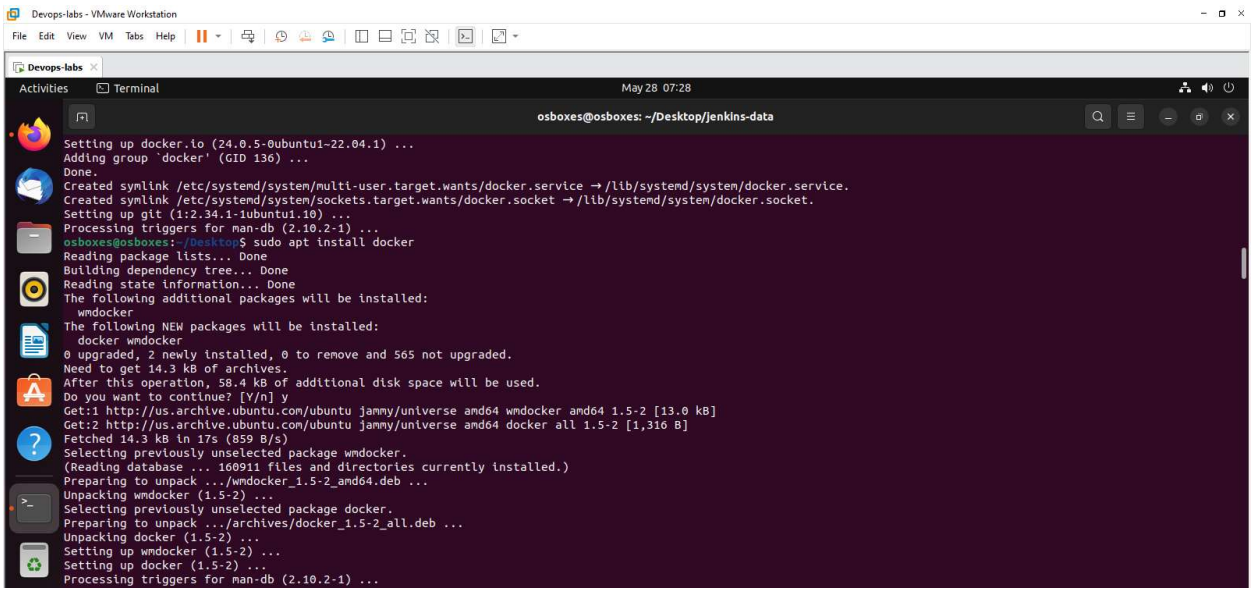
Jenkins and Pipeline

osboxes@osboxes:~/Desktop$ sudo apt-get update



osboxes@osboxes:~/Desktop$ sudo apt install docker.io

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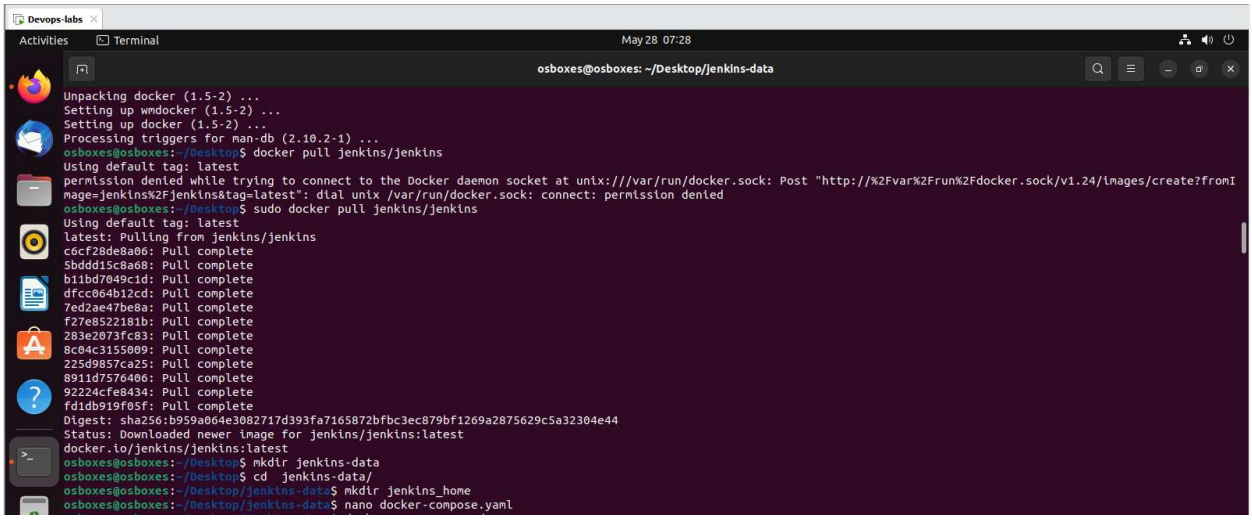
osboxes@osboxes: ~/Desktop/jenkins-data
Setting up docker.io (24.0.5-0ubuntu1~22.04.1) ...
Adding group `docker' (GID 136) ...
Done.
Created symlink /etc/systemd/system/multi-user.target.wants/docker.service → /lib/systemd/system/docker.service.
Created symlink /etc/systemd/system/sockets.target.wants/docker.socket → /lib/systemd/system/docker.socket.
Setting up git (1:2.34.1-1ubuntu1.10) ...
Processing triggers for man-db (2.10.2-1) ...
osboxes@osboxes:~/Desktop$ sudo apt install docker
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
wmdocker
The following NEW packages will be installed:
docker wmdocker
0 upgraded, 2 newly installed, 0 to remove and 565 not upgraded.
Need to get 14.3 kB of archives.
After this operation, 58.4 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://us.archive.ubuntu.com/ubuntu jammy/universe amd64 wmdocker amd64 1.5-2 [13.0 kB]
Get:2 http://us.archive.ubuntu.com/ubuntu jammy/universe amd64 docker all 1.5-2 [1,316 B]
Fetched 14.3 kB in 17s (859 B/s)
Selecting previously unselected package wmdocker.
(Reading database ... 160911 files and directories currently installed.)
Preparing to unpack .../wmdocker_1.5-2_amd64.deb ...
Unpacking wmdocker (1.5-2) ...
Selecting previously unselected package docker.
Preparing to unpack .../archives/docker_1.5-2_all.deb ...
Unpacking docker (1.5-2) ...
Setting up wmdocker (1.5-2) ...
Setting up docker (1.5-2) ...
Processing triggers for man-db (2.10.2-1) ...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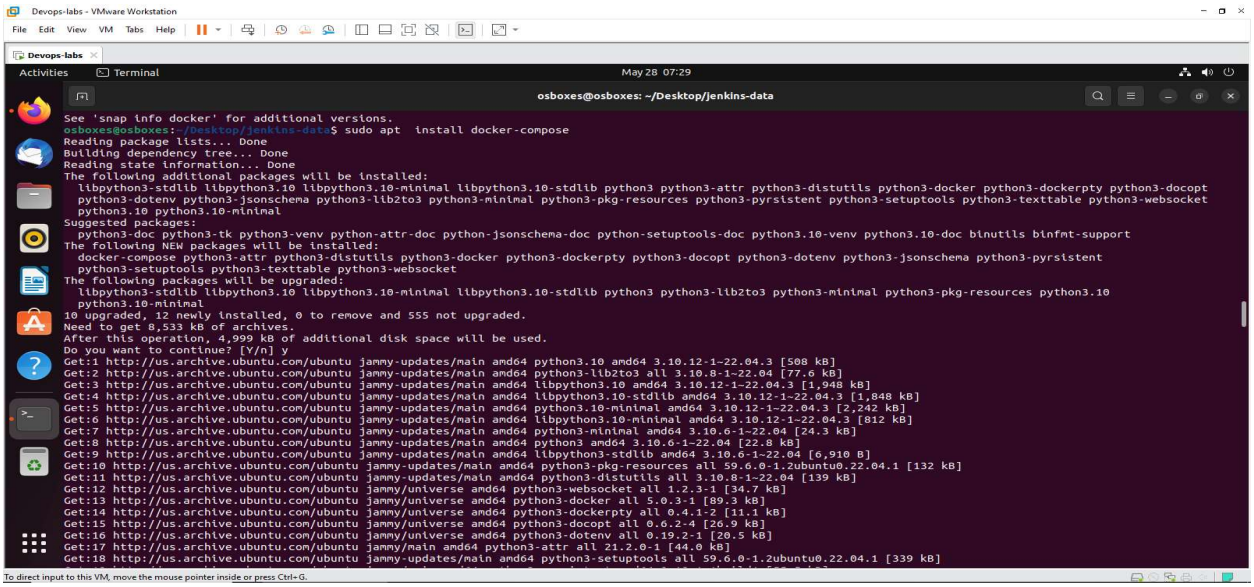
osboxes@osboxes: ~/Desktop/jenkins-data
Unpacking docker (1.5-2) ...
Setting up wmdocker (1.5-2) ...
Setting up docker (1.5-2) ...
Processing triggers for man-db (2.10.2-1) ...
osboxes@osboxes:~/Desktop$ docker pull jenkins/jenkins
Using default tag: latest
permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Post "http://%2Fvar%2Frun%2Fdocker.sock/v1.24/images/create?fromI
mage=jenkins%2Fjenkins&tag=latest": dial unix /var/run/docker.sock: connect: permission denied
osboxes@osboxes:~/Desktop$ sudo docker pull jenkins/jenkins
Using default tag: latest
latest: Pulling from jenkins/jenkins
c6cf28de8a06: Pull complete
5bddd15c8a68: Pull complete
b11bd7049c1d: Pull complete
dfcc064b12cd: Pull complete
7ed2ae47be8a: Pull complete
f27e8522181b: Pull complete
283e2073fc83: Pull complete
8c04c3155009: Pull complete
225d9857ca25: Pull complete
8911d7576406: Pull complete
92224cfe8434: Pull complete
fd1db919f05f: Pull complete
Digest: sha256:b959a064e3082717d393fa7165872bfbc3ec879bf1269a2875629c5a32304e44
Status: Downloaded newer image for jenkins/jenkins:latest
docker.io/jenkins/jenkins:latest
osboxes@osboxes:~/Desktop$ mkdir jenkins-data
osboxes@osboxes:~/Desktop$ cd jenkins-data/
osboxes@osboxes:~/Desktop/jenkins-data$ mkdir jenkins_home
osboxes@osboxes:~/Desktop/jenkins-data$ nano docker-compose.yaml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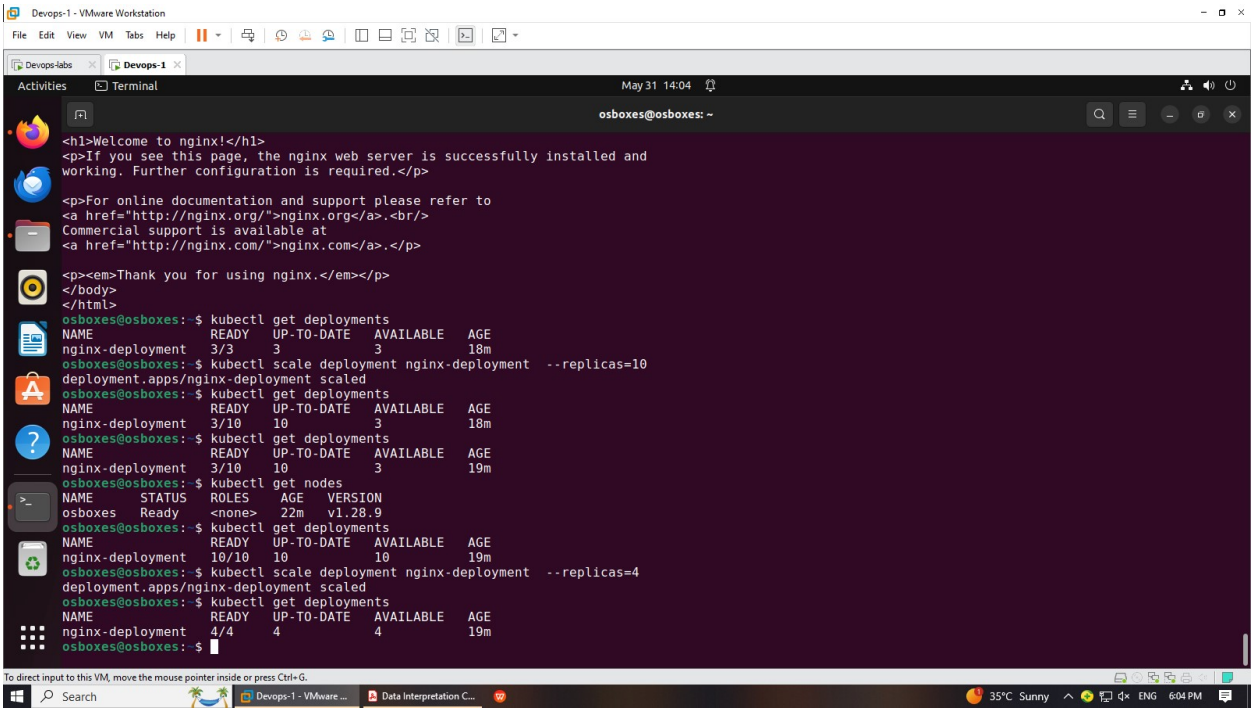
osboxes@osboxes: ~/Desktop/jenkins-data
See 'snap info docker' for additional versions.
osboxes@osboxes:~/Desktop/jenkins-data$ sudo apt install docker-compose
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
libpython3-stdlib libpython3.10 libpython3.10-minimal libpython3.10-stdlib python3 python3-attr python3-distutils python3-docker python3-dockerpty python3-docopt
python3-dotenv python3-jsonschema python3-lib2to3 python3-minimal python3-pkg-resources python3-pyrsistent python3-setuptools python3-texttable python3-websocket
python3.10 python3.10-minimal
Suggested packages:
python3-doc python3-tk python3-venv python-attr-doc python-jsonschema-doc python-setuptools-doc python3.10-venv python3.10-doc binutils binfmt-support
The following NEW packages will be installed:
docker-compose python3-attr python3-distutils python3-docker python3-dockerpty python3-docopt python3-dotenv python3-jsonschema python3-pyrsistent
python3-setuptools python3-texttable python3-websocket
The following packages will be upgraded:
libpython3-stdlib libpython3.10 libpython3.10-minimal libpython3.10-stdlib python3 python3-lib2to3 python3-minimal python3-pkg-resources python3.10
python3.10-minimal
10 upgraded, 12 newly installed, 0 to remove and 555 not upgraded.
Need to get 8,533 kB of archives.
After this operation, 4,999 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 python3.10 amd64 3.10.12-1~22.04.3 [508 kB]
Get:2 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 python3-lib2to3 all 3.10.8-1~22.04 [77.6 kB]
Get:3 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libpython3.10 amd64 3.10.12-1~22.04.3 [1,948 kB]
Get:4 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libpython3.10-stdlib amd64 3.10.12-1~22.04.3 [1,848 kB]
Get:5 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 python3.10-minimal amd64 3.10.12-1~22.04.3 [2,242 kB]
Get:6 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libpython3.10-minimal amd64 3.10.12-1~22.04.3 [812 kB]
Get:7 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 python3-minimal amd64 3.10.6-1~22.04 [24.3 kB]
Get:8 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 python3 amd64 3.10.6-1~22.04 [22.8 kB]
Get:9 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libpython3-stdlib amd64 3.10.6-1~22.04 [6,910 B]
Get:10 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 python3-pkg-resources all 59.6.0-1.2ubuntu0.22.04.1 [132 kB]
Get:11 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 python3-distutils all 3.10.8-1~22.04 [139 kB]
Get:12 http://us.archive.ubuntu.com/ubuntu jammy/universe amd64 python3-websocket all 1.2.3-1 [34.7 kB]
Get:13 http://us.archive.ubuntu.com/ubuntu jammy/universe amd64 python3-docker all 5.0.3-1 [89.3 kB]
Get:14 http://us.archive.ubuntu.com/ubuntu jammy/universe amd64 python3-dockerpty all 0.4.1-2 [11.1 kB]
Get:15 http://us.archive.ubuntu.com/ubuntu jammy/universe amd64 python3-docopt all 0.6.2-4 [26.9 kB]
Get:16 http://us.archive.ubuntu.com/ubuntu jammy/universe amd64 python3-dotenv all 0.19.2-1 [20.5 kB]
Get:17 http://us.archive.ubuntu.com/ubuntu jammy/main amd64 python3-attr all 21.2.0-1 [44.0 kB]
Get:18 http://us.archive.ubuntu.com/ubuntu jammy-updates/main amd64 python3-setuptools all 59.6.0-1.2ubuntu0.22.04.1 [339 kB]
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.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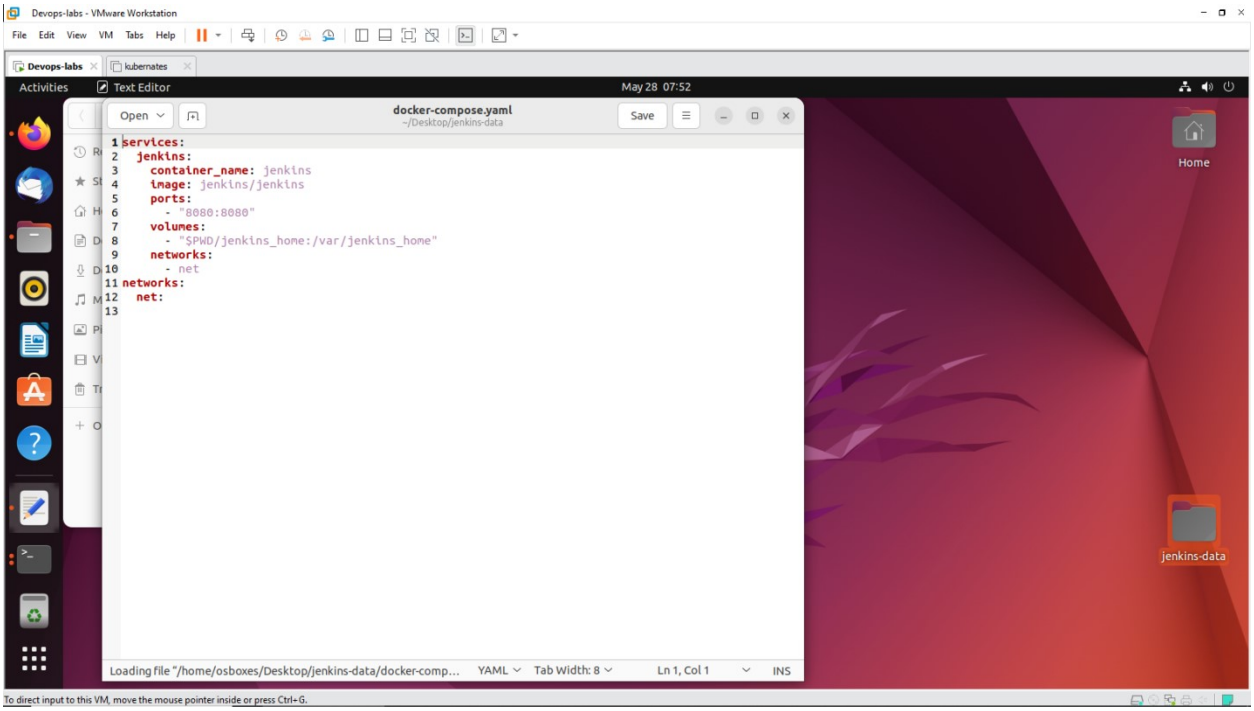
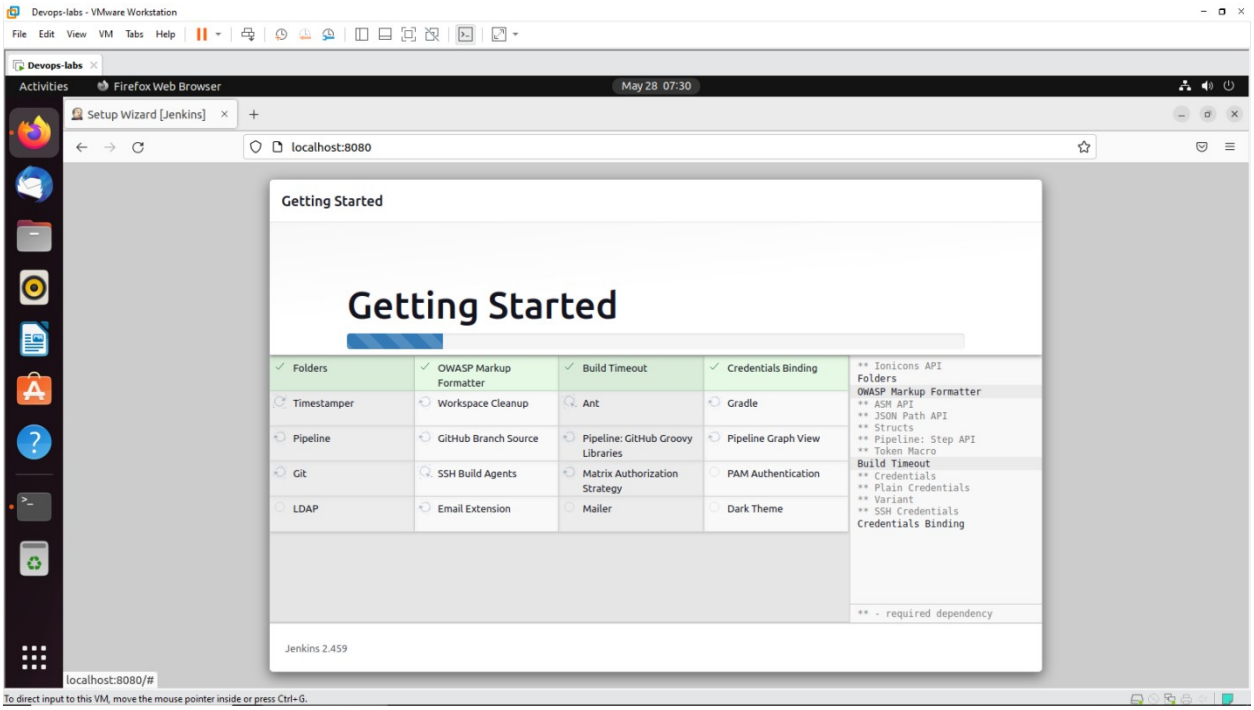
osboxes@osboxes: ~
<h1>Welcome to nginx!</h1>
If you see this page, the nginx web server is successfully installed and
working. Further configuration is required.
For online documentation and support please refer to
<a href="http://nginx.org/">nginx.org</a>.
Commercial support is available at
<a href="http://nginx.com/">nginx.com</a>.
Thank you for using nginx.
</body>
</html>
osboxes@osboxes:~$ kubectl get deployments
NAME READY UP-TO-DATE AVAILABLE AGE
nginx-deployment 3/3 3 3 18m
osboxes@osboxes:~$ kubectl scale deployment nginx-deployment --replicas=10
deployment.apps/nginx-deployment scaled
osboxes@osboxes:~$ kubectl get deployments
NAME READY UP-TO-DATE AVAILABLE AGE
nginx-deployment 3/10 10 3 18m
osboxes@osboxes:~$ kubectl get deployments
NAME READY UP-TO-DATE AVAILABLE AGE
nginx-deployment 3/10 10 3 19m
osboxes@osboxes:~$ kubectl get nodes
NAME STATUS ROLES AGE VERSION
osboxes Ready <none> 22m v1.28.9
osboxes@osboxes:~$ kubectl get deployments
NAME READY UP-TO-DATE AVAILABLE AGE
nginx-deployment 10/10 10 10 19m
osboxes@osboxes:~$ kubectl scale deployment nginx-deployment --replicas=4
deployment.apps/nginx-deployment scaled
osboxes@osboxes:~$ kubectl get deployments
NAME READY UP-TO-DATE AVAILABLE AGE
nginx-deployment 4/4 4 4 19m
osboxes@osboxes:~$
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.
Search
Devops-1 - VMware ...
Data Interpretation C...
35°C Sunny
ENG
6:04 PM

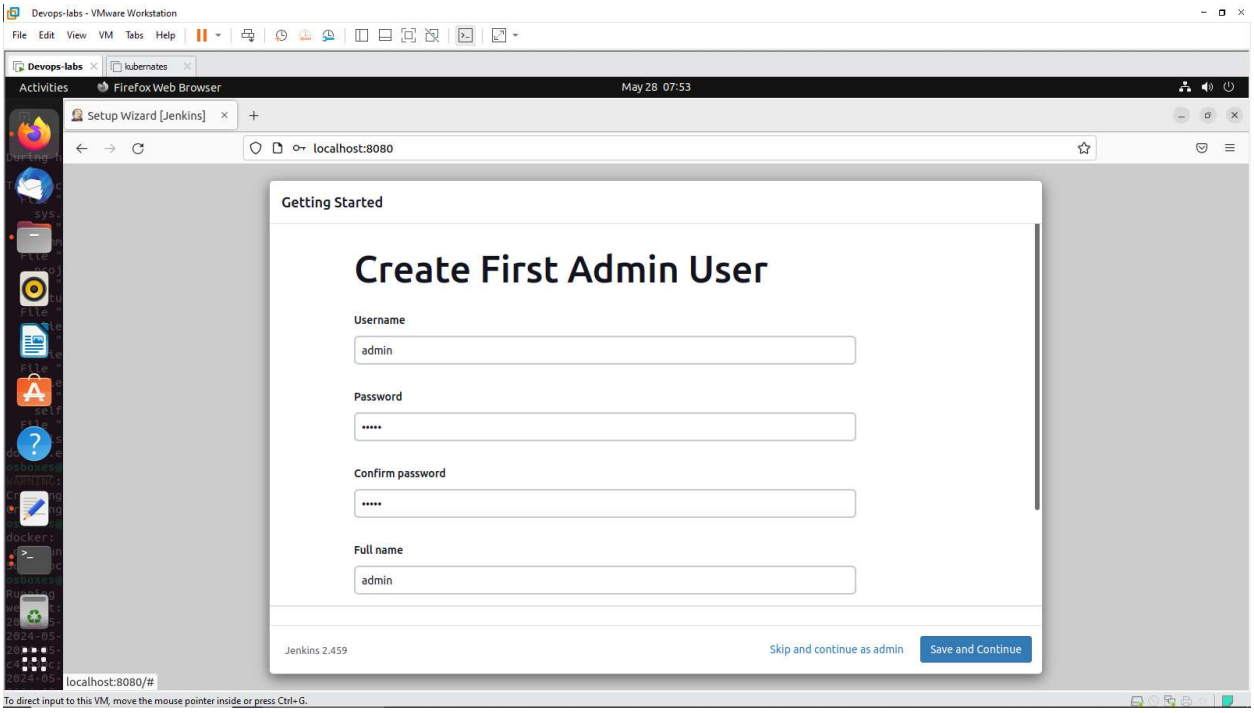
osboxes@osboxes:~/Desktop/jenkins-data$ sudo nano docker-compose.yaml



osboxes@osboxes:~/Desktop/jenkins-data$ sudo docker-compose up –d

osboxes@osboxes:~/Desktop/jenkins-data$ sudo docker run -p 8080:8080 jenkins/Jenkins

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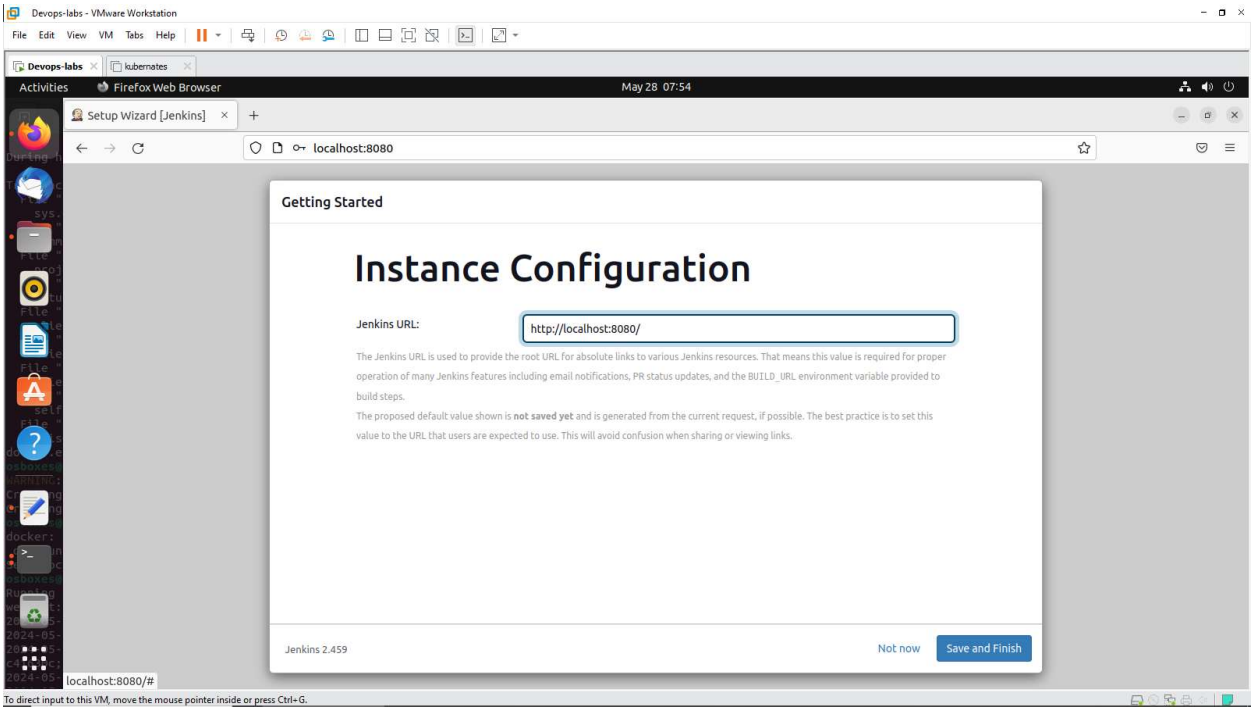
May 28 07:53
Setup Wizard [Jenkins]
localhost:8080
Getting Started
Create First Admin User
Username
admin
Password
Confirm password
Full name
admin
Jenkins 2.459
Skip and continue as admin
Save and Continue
localhost:8080/#
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.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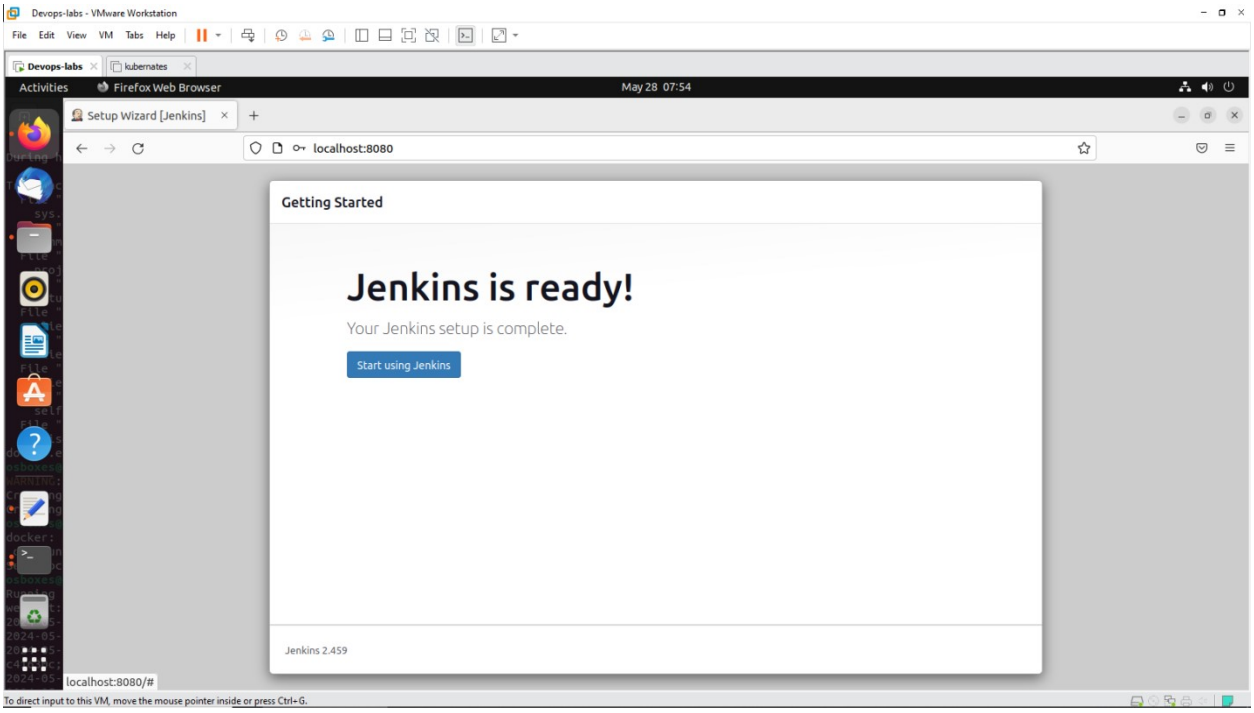
May 28 07:54
Setup Wizard [Jenkins]
localhost:8080
Getting Started
Instance Configuration
Jenkins URL:
http://localhost:8080/
The Jenkins URL is used to provide the root URL for absolute links to various Jenkins resources. That means this value is required for proper operation of many Jenkins features including email notifications, PR status updates, and the BUILD_URL environment variable provided to build steps.
The proposed default value shown is not saved yet and is generated from the current request, if possible. The best practice is to set this value to the URL that users are expected to use. This will avoid confusion when sharing or viewing links.
Jenkins 2.459
Not now
Save and Finish
localhost:8080/#
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.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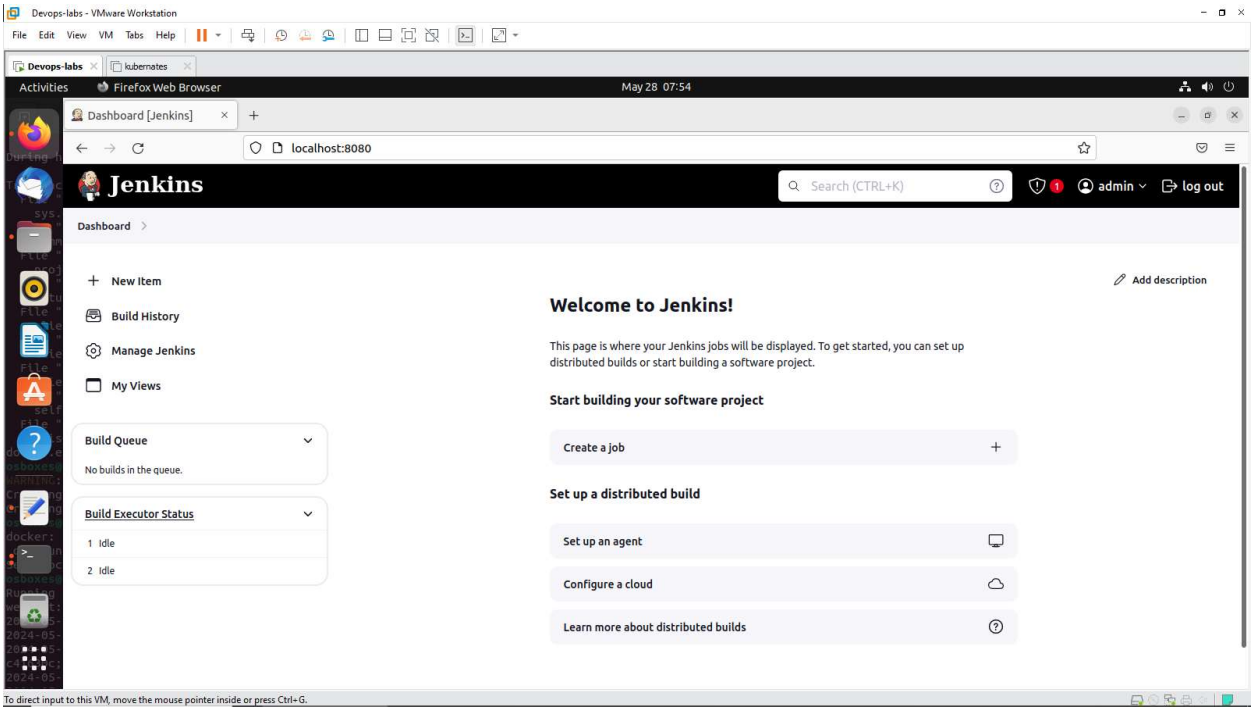
Setup Wizard [Jenkins]
localhost:8080
Getting Started
Jenkins is ready!
Your Jenkins setup is complete.
Start using Jenkins
Jenkins 2.459
localhost:8080/#
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.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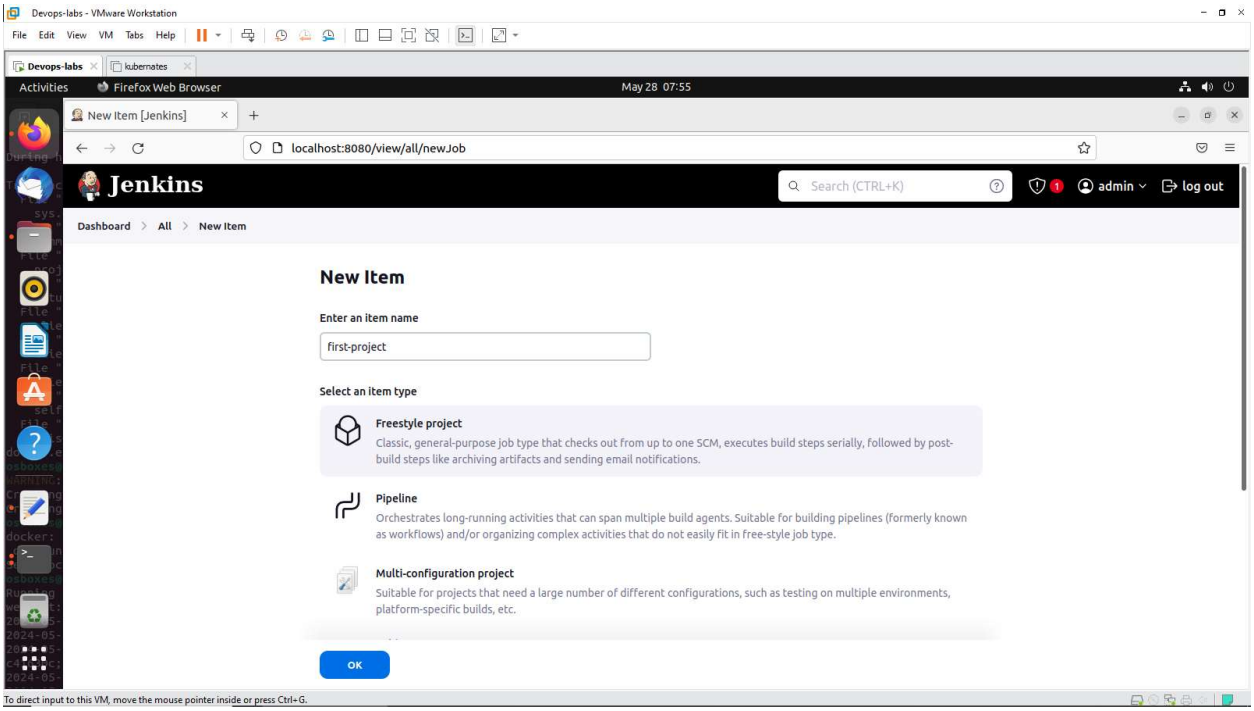
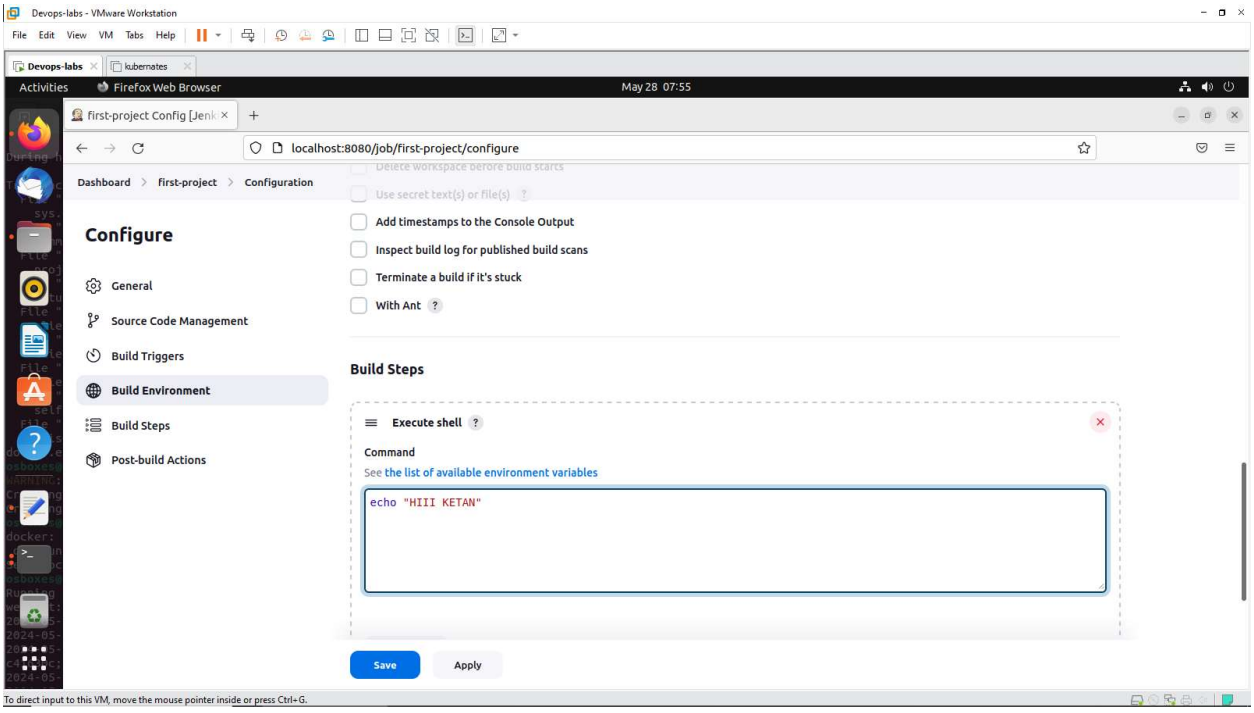
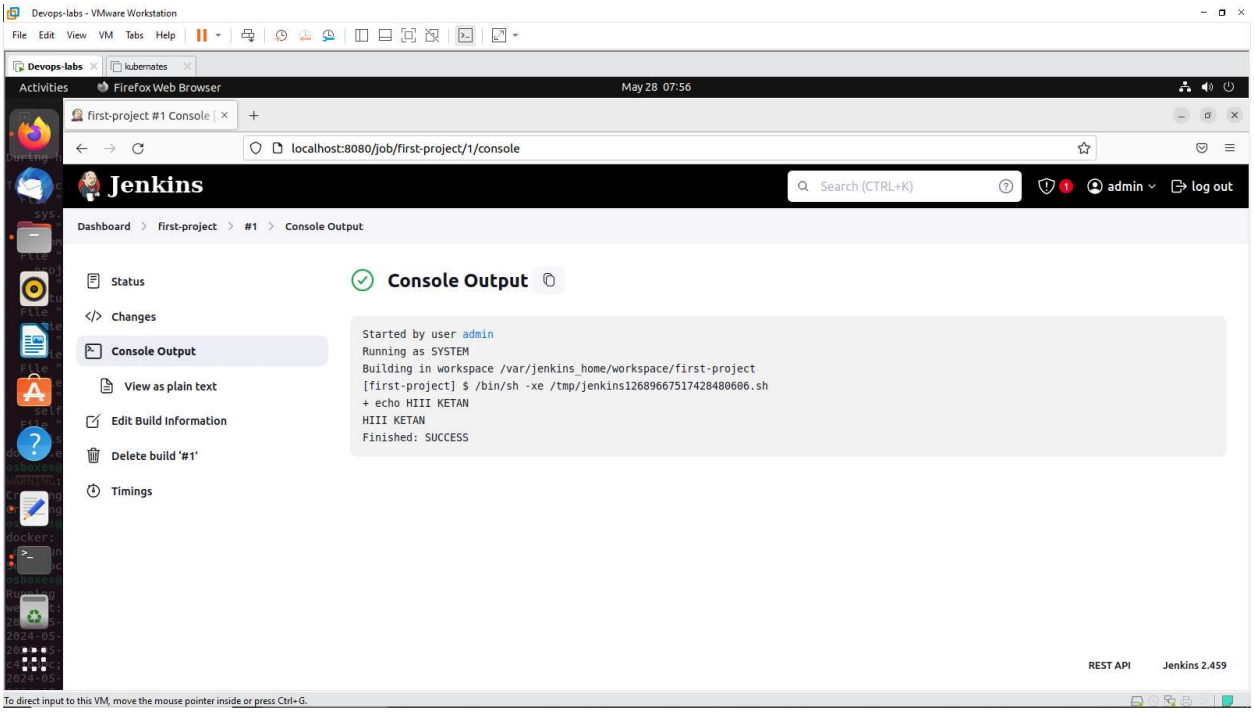
Dashboard [Jenkins]
localhost:8080
Jenkins
Search (CTRL+K)
admin
log out
Dashboard
New Item
Build History
Manage Jenkins
My Views
Build Queue
No builds in the queue.
Build Executor Status
1 Idle
2 Idle
Add description
Welcome to Jenkins!
This page is where your Jenkins jobs will be displayed. To get started, you can set up distributed builds or start building a software project.
Start building your software project
Create a job
Set up a distributed build
Set up an agent
Configure a cloud
Learn more about distributed builds
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.

a. Creating first project

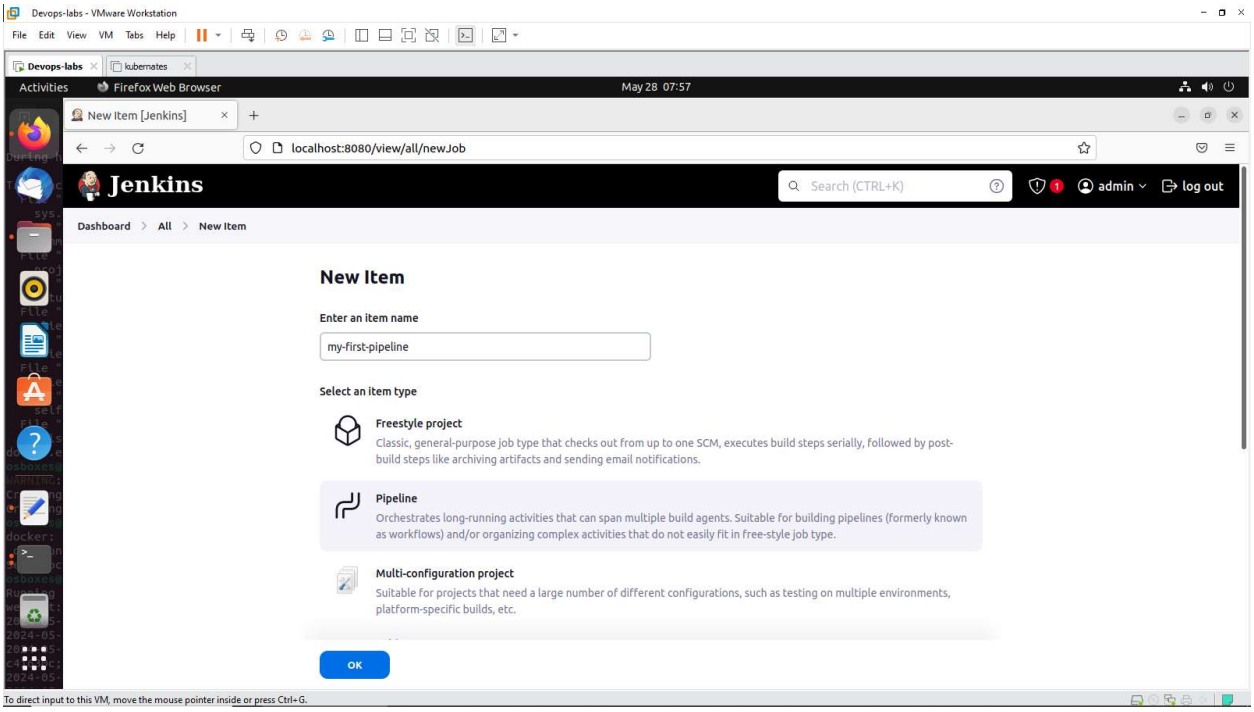




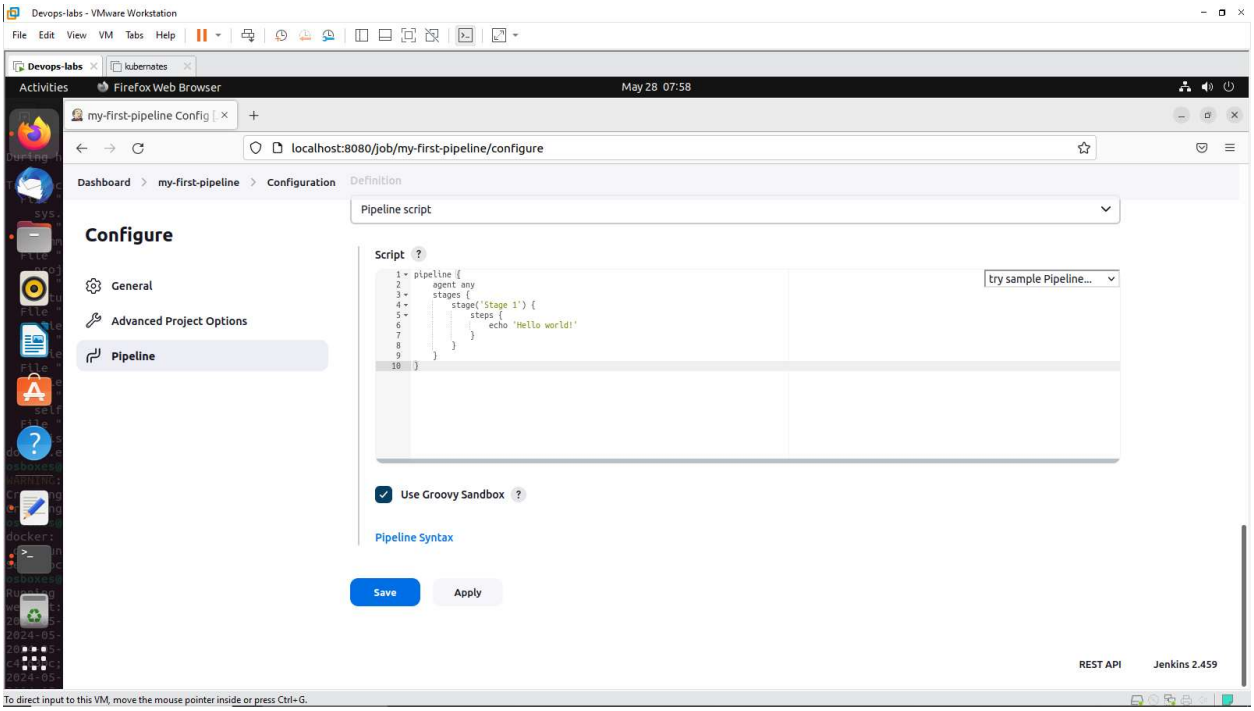


b. Creating pipeline

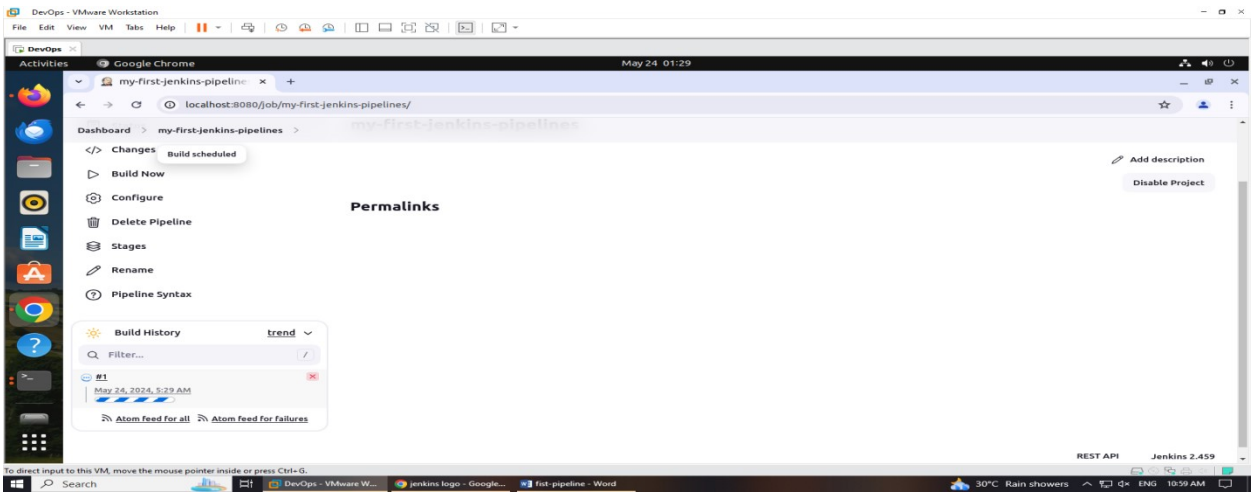
Select the pipeline project



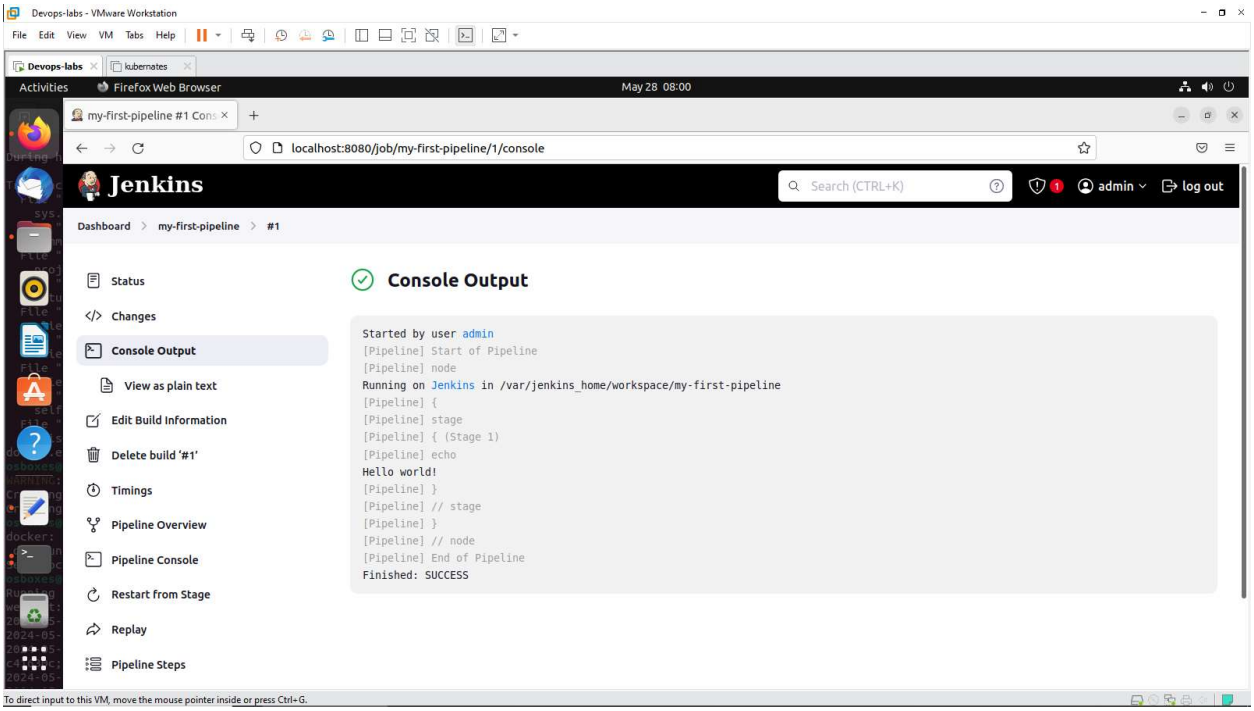
Select pipeline script



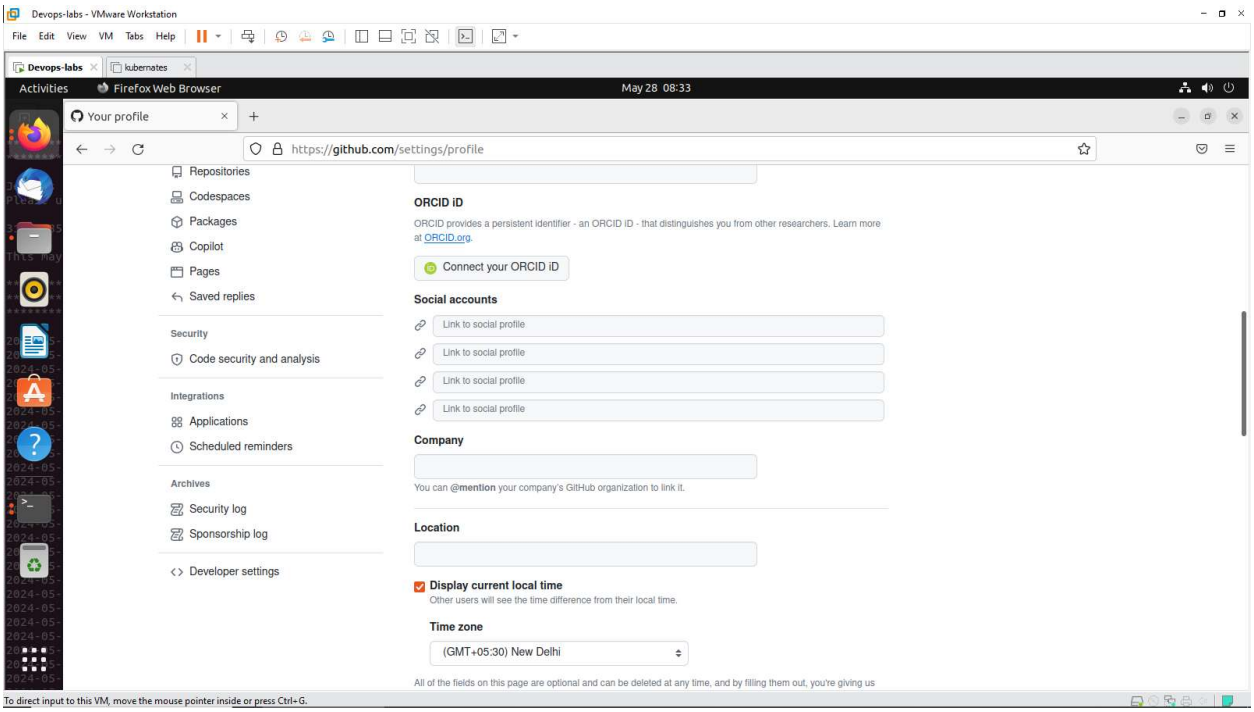
Build Now

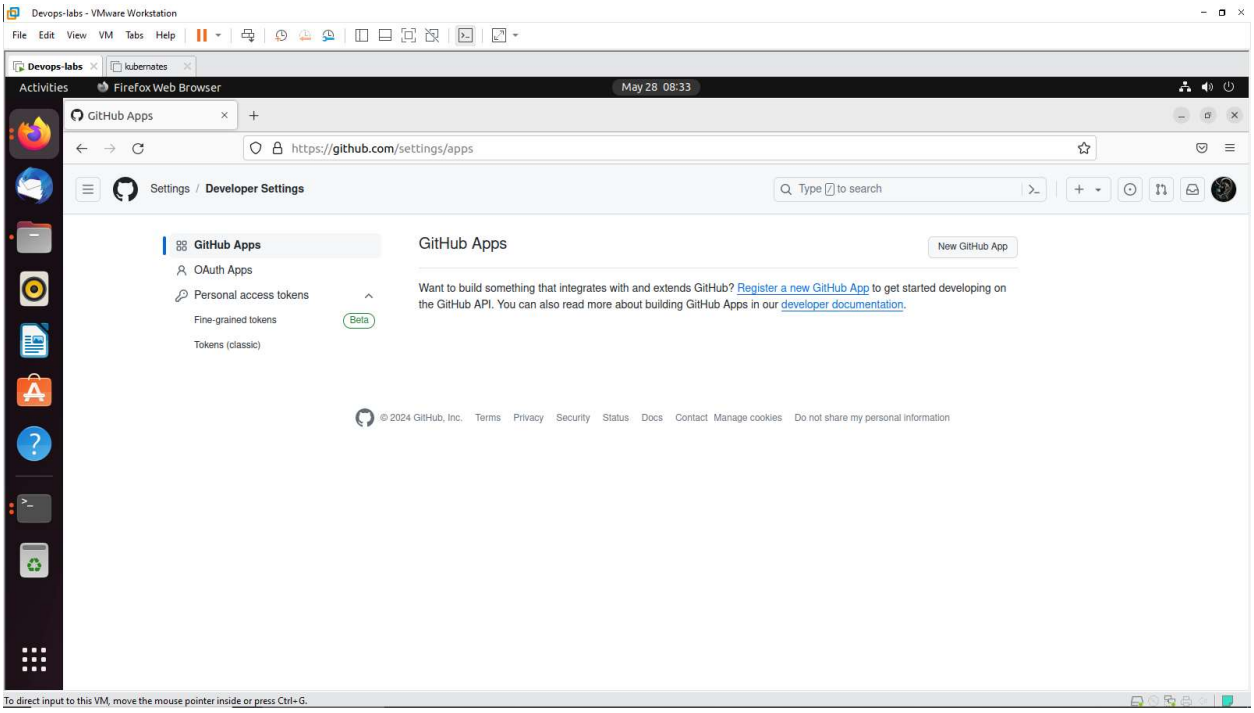


OUTPUT



c. Use Git hub Project

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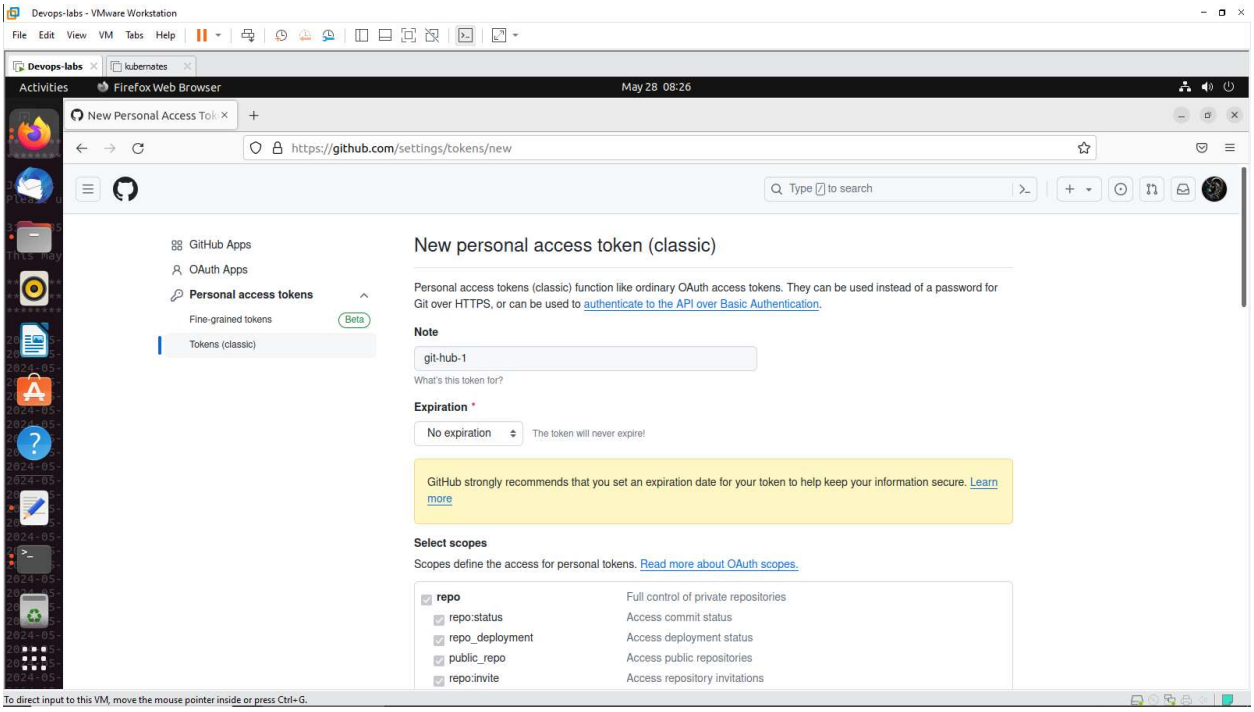
GitHub Apps
https://github.com/settings/apps
Settings / Developer Settings
Type / to search
GitHub Apps
OAuth Apps
Personal access tokens
Fine-grained tokens
Beta
Tokens (classic)
GitHub Apps
New GitHub App
Want to build something that integrates with and extends GitHub? Register a new GitHub App to get started developing on the GitHub API. You can also read more about building GitHub Apps in our developer documentation.
© 2024 GitHub, Inc. Terms Privacy Security Status Docs Contact Manage cookies Do not share my personal information
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.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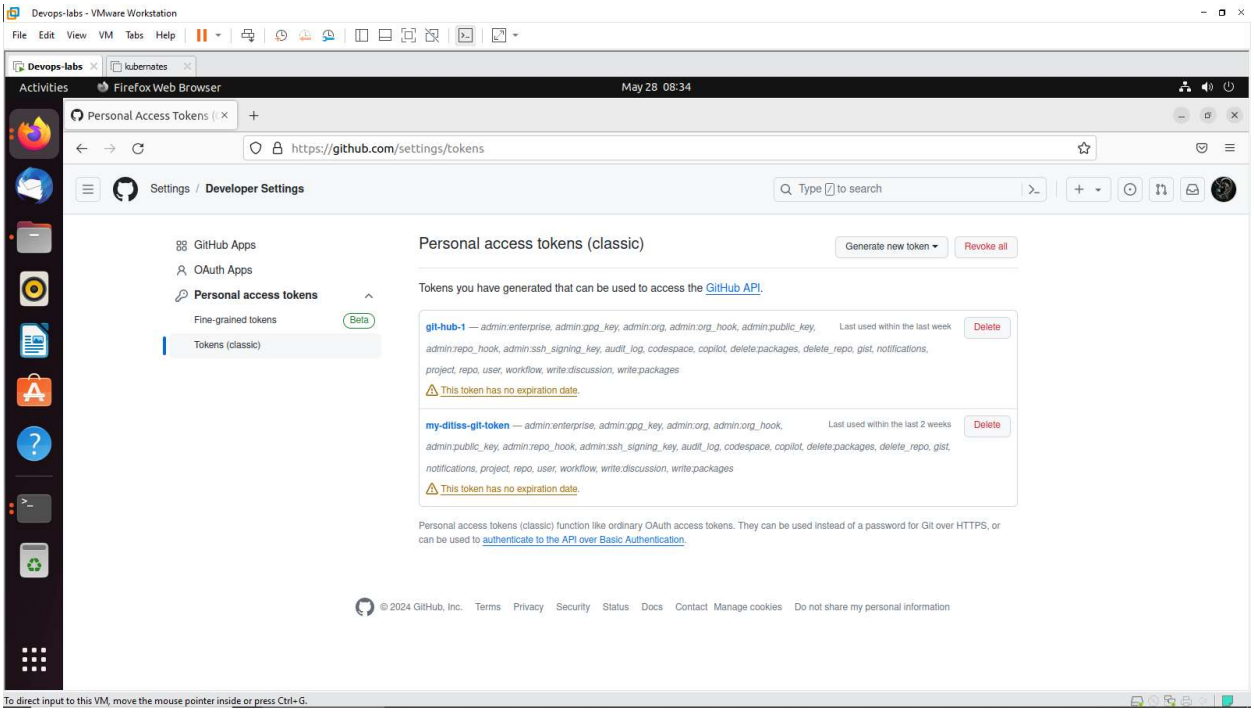
May 28 08:26
New Personal Access Tok
https://github.com/settings/tokens/new
Type / to search
GitHub Apps
OAuth Apps
Personal access tokens
Fine-grained tokens
Beta
Tokens (classic)
New personal access token (classic)
Personal access tokens (classic) function like ordinary OAuth access tokens. They can be used instead of a password for Git over HTTPS, or can be used to authenticate to the API over Basic Authentication.
Note
git-hub-1
What's this token for?
Expiration *
No expiration
The token will never expire!
GitHub strongly recommends that you set an expiration date for your token to help keep your information secure. Learn more
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
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.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May 28 08:34
Personal Access Tokens
https://github.com/settings/tokens
Settings / Developer Settings
Type / to search
GitHub Apps
OAuth Apps
Personal access tokens
Fine-grained tokens
Beta
Tokens (classic)
Personal access tokens (classic)
Generate new token
Revoke all
Tokens you have generated that can be used to access the GitHub API.
git-hub-1 — admin:enterprise, admin:gpg_key, admin:org, admin:org_hook, admin:public_key, admin:repo_hook, admin:ssh_signing_key, audit_log, codespace, copilot, delete:packages, delete_repo, gist, notifications, project, repo, user, workflow, write:discussion, write:packages
Last used within the last week
Delete
This token has no expiration date.
my-ditiss-git-token — admin:enterprise, admin:gpg_key, admin:org, admin:org_hook, admin:public_key, admin:repo_hook, admin:ssh_signing_key, audit_log, codespace, copilot, delete:packages, delete_repo, gist, notifications, project, repo, user, workflow, write:discussion, write:packages
Last used within the last 2 weeks
Delete
This token has no expiration date.
Personal access tokens (classic) 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.
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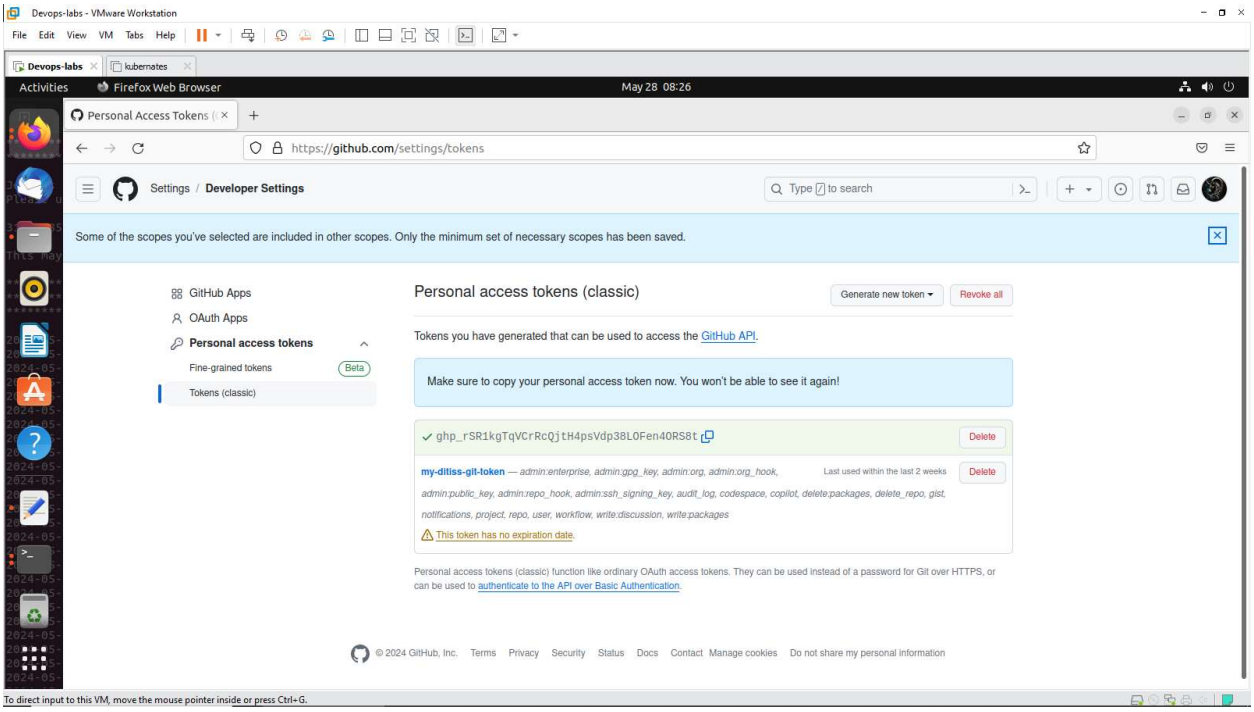
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.


Devops-labs - VMware Workstation
File Edit View VM Tabs Help
Devops-labs
kubernates
Activities
Firefox Web Browser
May 28 08:26
Personal Access Tokens
https://github.com/settings/tokens
Settings / Developer Settings
Type / to search
Some of the scopes you've selected are included in other scopes. Only the minimum set of necessary scopes has been saved.
GitHub Apps
OAuth Apps
Personal access tokens
Fine-grained tokens
Beta
Tokens (classic)
Personal access tokens (classic)
Generate new token
Revoke all
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!
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
Delete
my-ditiss-git-token — admin:enterprise, admin:gpg_key, admin:org, admin:org_hook, admin:public_key, admin:repo_hook, admin:ssh_signing_key, audit_log, codespace, copilot, delete:packages, delete_repo, gist, notifications, project, repo, user, workflow, write:discussion, write:packages
Last used within the last 2 weeks
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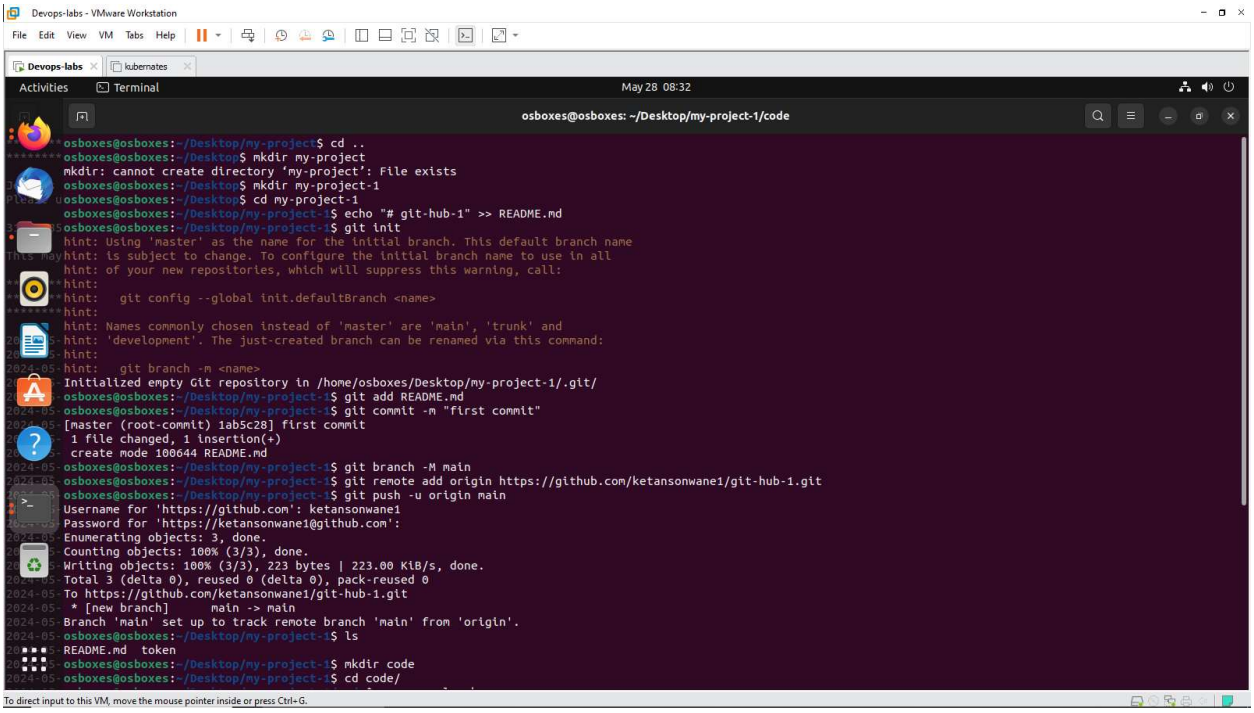
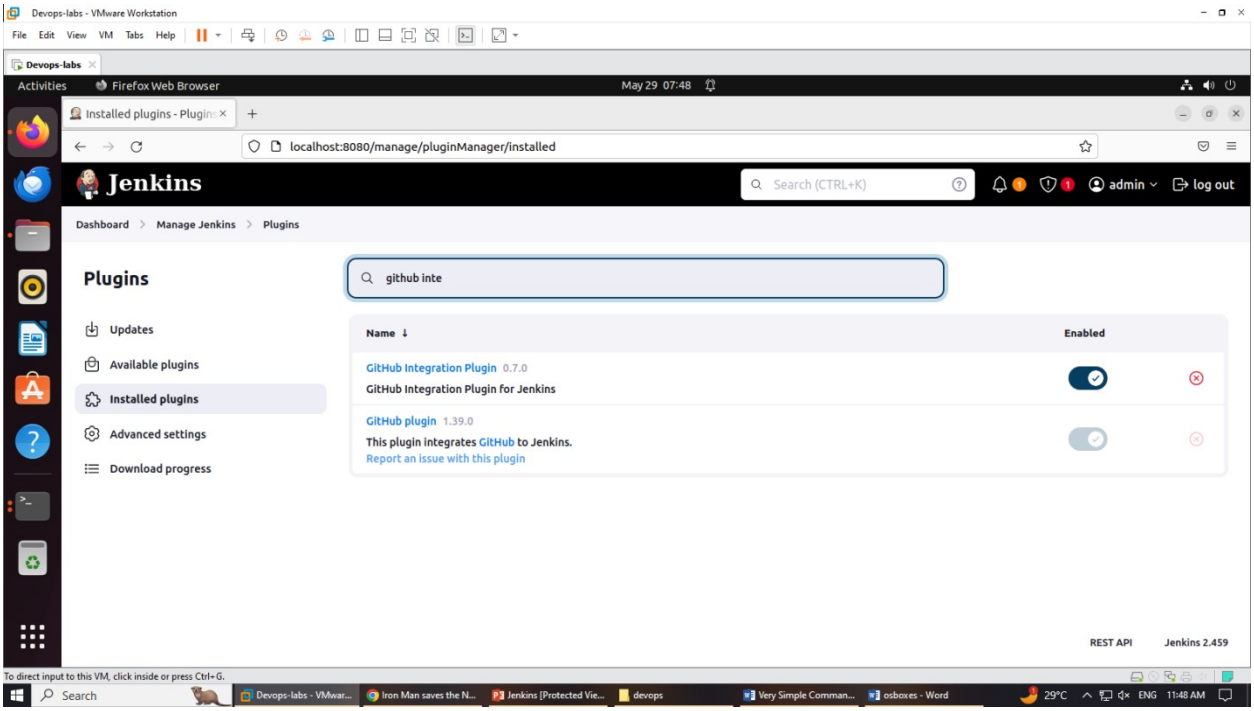
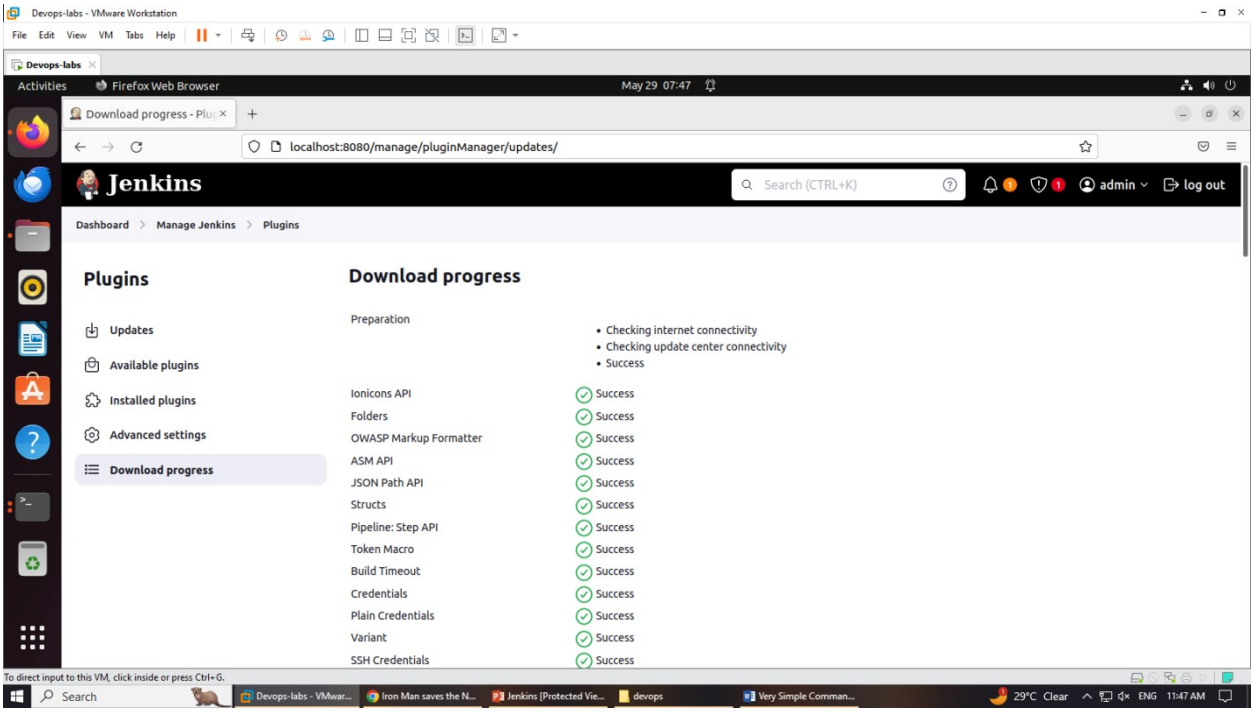
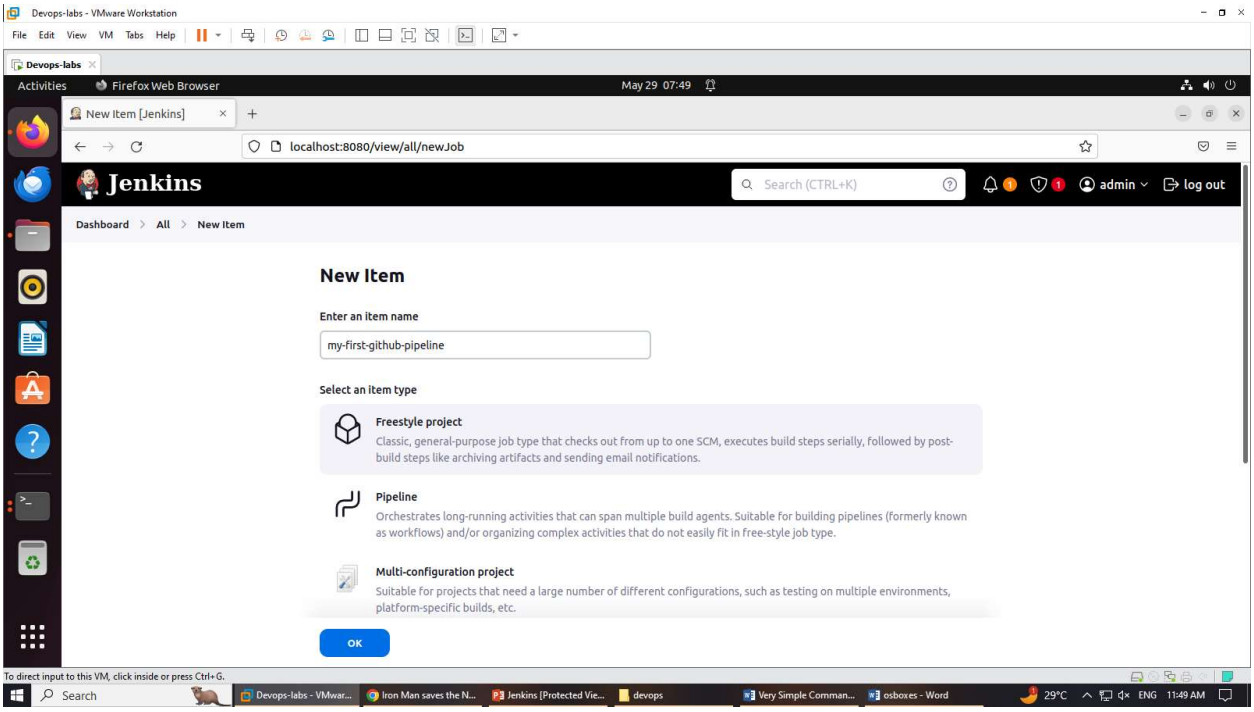
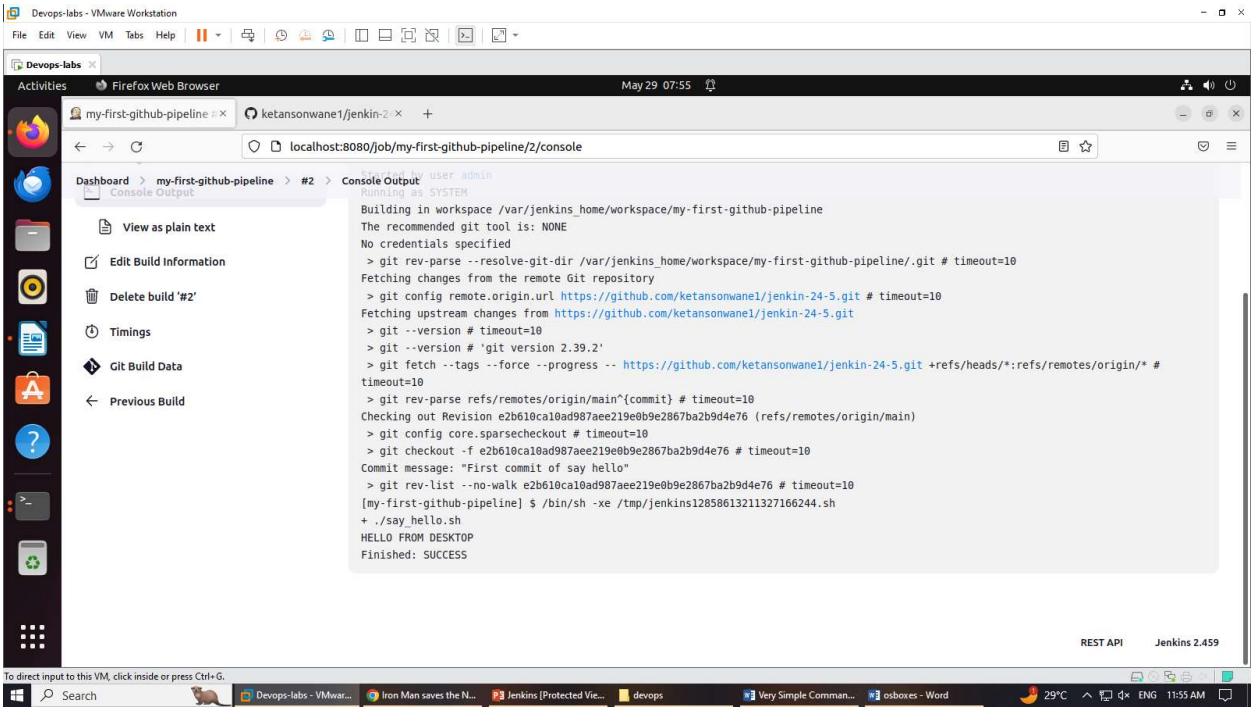
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.


Devops-labs - VMware Workstation
File Edit View VM Tabs Help
Devops-labs
kubernates
Activities
Terminal
May 28 08:32
osboxes@osboxes: ~/Desktop/my-project-1/code
osboxes@osboxes:~/Desktop/my-project$ cd ..
osboxes@osboxes:~/Desktop$ mkdir my-project
mkdir: cannot create directory ‘my-project’: File exists
osboxes@osboxes:~/Desktop$ mkdir my-project-1
osboxes@osboxes:~/Desktop$ cd my-project-1
osboxes@osboxes:~/Desktop/my-project-1$ echo "# git-hub-1" >> README.md
osboxes@osboxes:~/Desktop/my-project-1$ git init
hint: Using 'master' as the name for the initial branch. This default branch name
hint: is subject to change. To configure the initial branch name to use in all
hint: of your new repositories, which will suppress this warning, call:
hint:
hint: git config --global init.defaultBranch <name>
hint:
hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and
hint: 'development'. The just-created branch can be renamed via this command:
hint:
hint: git branch -m <name>
Initialized empty Git repository in /home/osboxes/Desktop/my-project-1/.git/
osboxes@osboxes:~/Desktop/my-project-1$ git add README.md
osboxes@osboxes:~/Desktop/my-project-1$ git commit -m "first commit"
[master (root-commit) 1ab5c28] first commit
1 file changed, 1 insertion(+)
create mode 100644 README.md
osboxes@osboxes:~/Desktop/my-project-1$ git branch -M main
osboxes@osboxes:~/Desktop/my-project-1$ git remote add origin https://github.com/ketansonwane1/git-hub-1.git
osboxes@osboxes:~/Desktop/my-project-1$ git push -u origin main
Username for 'https://github.com': ketansonwane1
Password for 'https://ketansonwane1@github.com':
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 223 bytes | 223.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/ketansonwane1/git-hub-1.git
* [new branch] main -> main
Branch 'main' set up to track remote branch 'main' from 'origin'.
osboxes@osboxes:~/Desktop/my-project-1$ ls
README.md token
osboxes@osboxes:~/Desktop/my-project-1$ mkdir code
osboxes@osboxes:~/Desktop/my-project-1$ cd code/
To direct input to this VM, move the mouse pointer inside or press Ctrl+G.


Devops-labs - VMware Workstation
File Edit View VM Tabs Help
Devops-labs
Activities
Firefox Web Browser
May 29 07:48
Installed plugins - Plugins
localhost:8080/manage/pluginManager/installed
Jenkins
Search (CTRL+K)
admin
log out
Dashboard > Manage Jenkins > Plugins
Plugins
github inte
Updates
Available plugins
Installed plugins
Advanced settings
Download progress
Name
Enabled
GitHub Integration Plugin 0.7.0
GitHub Integration Plugin for Jenkins
GitHub plugin 1.39.0
This plugin integrates GitHub to Jenkins.
Report an issue with this plugin
REST API
Jenkins 2.459
To direct input to this VM, click inside or press Ctrl+G.
Search
29°C
ENG
11:48 AM


Devops-labs - VMware Workstation
File Edit View VM Tabs Help
Devops-labs
Activities
Firefox Web Browser
May 29 07:47
Download progress - Plu
localhost:8080/manage/pluginManager/updates/
Jenkins
Search (CTRL+K)
admin
log out
Dashboard > Manage Jenkins > Plugins
Plugins
Updates
Available plugins
Installed plugins
Advanced settings
Download progress
Download progress
Preparation
• Checking internet connectivity
• Checking update center connectivity
• Success
Ionicons API Success
Folders Success
OWASP Markup Formatter Success
ASM API Success
JSON Path API Success
Structs Success
Pipeline: Step API Success
Token Macro Success
Build Timeout Success
Credentials Success
Plain Credentials Success
Variant Success
SSH Credentials Success
To direct input to this VM, click inside or press Ctrl+G.
Search
29°C Clear
ENG
11:47 AM


Devops-labs - VMware Workstation
File Edit View VM Tabs Help
Devops-labs
Activities
Firefox Web Browser
May 29 07:49
New Item [Jenkins]
localhost:8080/view/all/newJob
Jenkins
Search (CTRL+K)
admin
log out
Dashboard > All > New Item
New Item
Enter an item name
my-first-github-pipeline
Select an item type
Freestyle project
Classic, general-purpose job type that checks out from up to one SCM, executes build steps serially, followed by post-build steps like archiving artifacts and sending email notifications.
Pipeline
Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.
Multi-configuration project
Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.
OK
To direct input to this VM, click inside or press Ctrl+G.
Search
29°C
ENG
11:49 AM

- Jenkins UI->Manage Jenkins->Plugins->Available plugins->Search for Github->Select GitHub Integration->Install->Go back to the top page (Note: Do NOT select Restart jenkins …)
- Dashboard->New item
- Project name: my-github-project->Freestyle project->Ok->Source code management->Git->Repository URL->*Paste the actual URL*->Branches to build->Branch specifier->*/main->Save->Build now
- Configure the project->Build steps->Add build step->Execute shell->./say_hello.sh->Save->Build now