







Docker Documentation



create a ec2 Linux Instance

After creating Instance Follow bellow steps

We need to create Docker file and Python file

Docker file for **Python Execution** — File Name :- **Dockerfile**

```
# Set the working directory in the image
WORKDIR /app

# Copy the files from the host file system to the image file system
COPY . /app

# Install the necessary packages
```

```
print("Hello World")
```

create a Git hub repository and push Python and Docker files to Git Repo

Repo name: Docker

branch: master

```
git init
git config user.name user-name
git config user.email user-email
git remote add origin paste remote repo
git remote add file-names
git commit -m "pushing python and docker files to master"
git push origin master
```

Docker file for Java Execution—File Name: - Dockerfile

```
FROM ubuntu:latest

# Set the working directory in the image

WORKDIR /app

# Copy the files from the host file system to the image file system

COPY . /app

# Install the necessary packages

RUN apt-get update && apt-get install openjdk-17-jdk -y

# Set environment variables

ENV NAME World
```

```
}
```

push the Java File and Docker File to Git Repo

Repo name: Docker

branch: java

```
git init
git config user.name user-name
git config user.email user-email
git remote add origin paste remote repo
git remote add file-names
git commit -m "pushing java and docker files to master"
git push origin java
```

Docker file for **Go Execution** — File Name :- **Dockerfile**

```
# Set the entrypoint for the container to run the binary ENTRYPOINT ["/app"]
```

$Java\ file-File\ Name:-calculator.go$

```
package main
import (
"bufio"
"fmt"
"os"
"strconv"
"strings"
func main() {
 fmt.Println("Hi VS Charan, I am a calculator app ....")
 for {
 // Read input from the user
  reader := bufio.NewReader(os.Stdin)
  fmt.Print("Enter any calculation (Example: 1 + 2 (or) 2 * 5 -> Please maintai
  text, _ := reader.ReadString('\n')
  // Trim the newline character from the input
 text = strings.TrimSpace(text)
  // Check if the user entered "exit" to quit the program
 if text == "exit" {
  break
  }
  // Split the input into two parts: the left operand and the right operand
  parts := strings.Split(text. " ")
```

```
continue
 // Perform the calculation based on the operator
  var result int
  switch parts[1] {
  case "+":
   result = left + right
  case "-":
   result = left - right
  case "*":
   result = left * right
  case "/":
   result = left / right
  default:
  fmt.Println("Invalid operator. Try again.")
  continue
 }
  // Print the result
 fmt.Printf("Result: %d\n", result)
}
}
```

push the Go File and Docker File to Git Repo

Repo name : Docker

branch: go

```
git init
git config user.name user-name
```

```
sudo yum install git -y
```

clone the project in EC2

```
git clone -b master paste git repo url (http)
```

Install Docker

```
sudo yum install docker -y
```

Enable Docker

sudo systemctl enable docker

Start Docker

sudo systemctl start docker

```
docker images
```

To run the containers (from Image to Containers) for python execution

```
docker run -it image_name (or) image_id
```

Output: Hello World

To run Java Files

To see the Branches local and Remote

```
git branch -a
```

To switch the branch

```
git checkout java
```

Ruild Image for java

To run the containers (from Image to Containers) for Java execution

```
docker run -it image_name (or) image_id
```

Output: Welcome to DevOps Community

To run Go Files

To see the Branches local and Remote

```
git branch -a
```

To switch the branch

```
git checkout go
```

Build Image for java

```
docker build -t image_name .
```

```
docker run -it image_name (or) image_id
```

Output: Enter any calculation (Example: 1 + 2 (or) 2 * 5 -> Please maintain spaces as shown in example): 1 + 2

3

To check the Containers

```
docker ps -a
```

You will see 3 Containers

```
[ec2-user@ip-172-31-17-193 Docker_practice]$ sudo docker ps -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

3dlc3e35c18f java "java app.java" About a minute ago Exited (0) About a minute ago epic_napier

e27959cf4941 go "python3 app.py" 16 minutes ago Exited (0) 15 minutes ago cool_yonath

c79e5994f7be 75bf778ecacd "/app" 6 hours ago Exited (2) 6 hours ago flamboyant_williamson

[ec2-user@ip-172-31-17-193 Docker_practice]$
```

More from VS Charan





Assigment—2

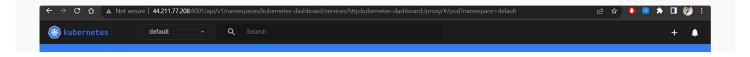
pushing the .jar file to Jfrog Automatically

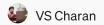
5 min read · 1 day ago











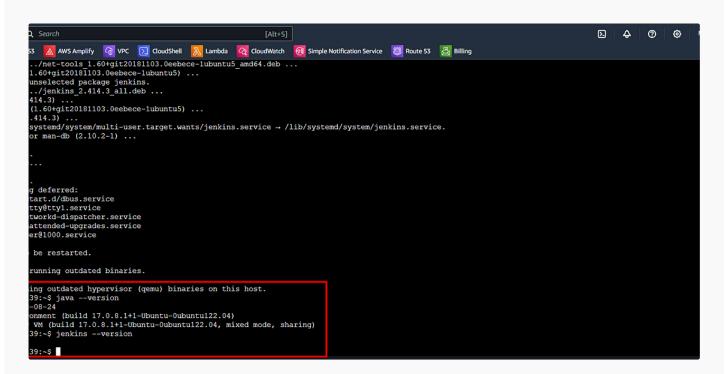
MINIKUBE PROJECT2 SETUP

after installing start and enable the docker by following commands

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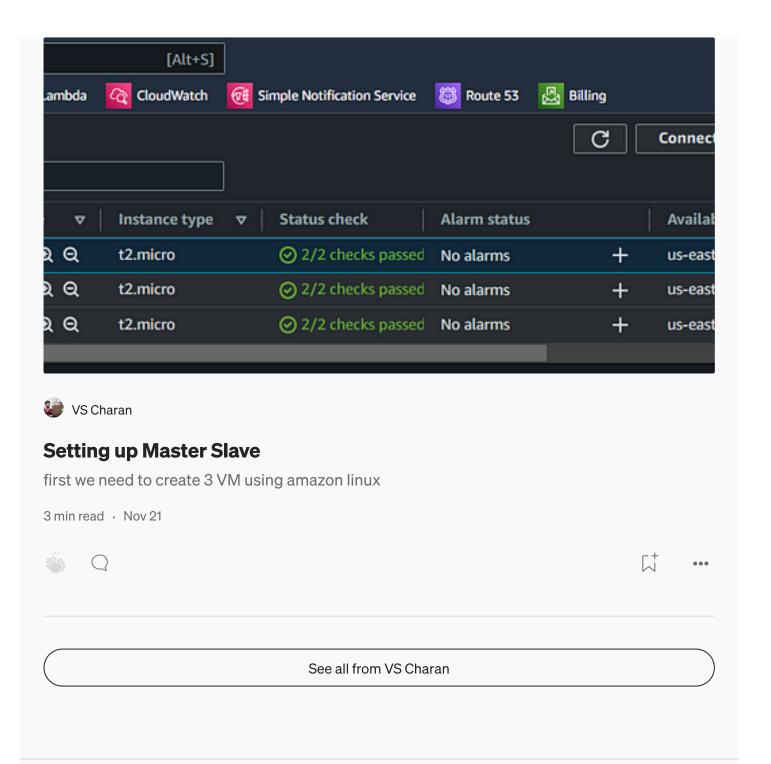


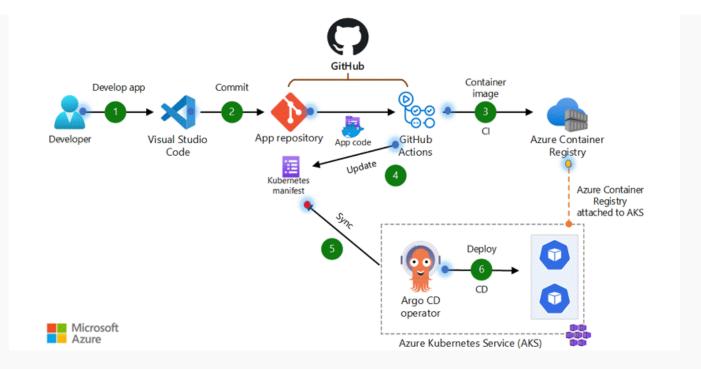




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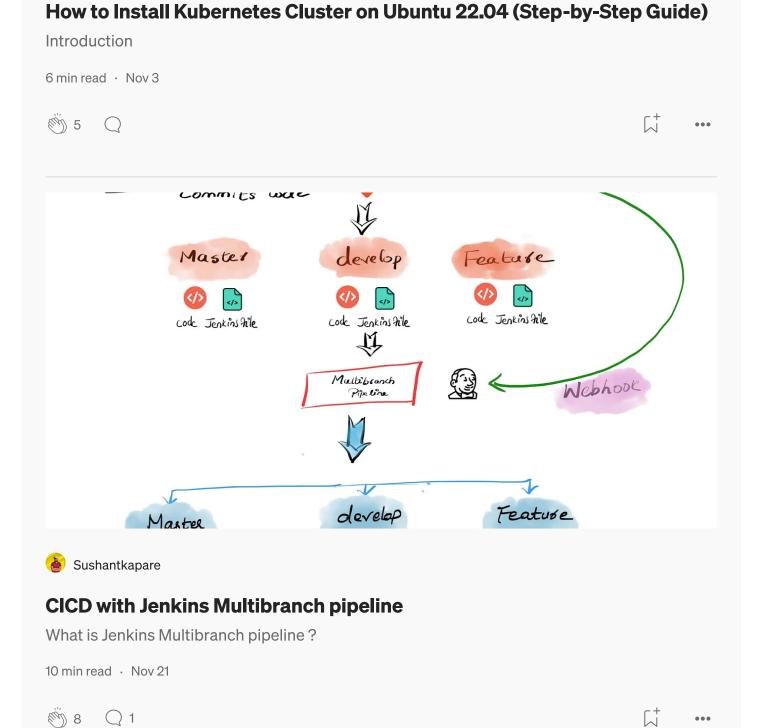
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join 146.190.135.86:6443 --token f1h95l.u4nkex9cw8d0g63w --disco 3d1666af50c85f060b9fadc73f13c932e0e2a9eeef08f51f91a e-flight checks nfiguration from the cluster... an look at this config file with 'kubectl -n kube-system get cm kubeadm-







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