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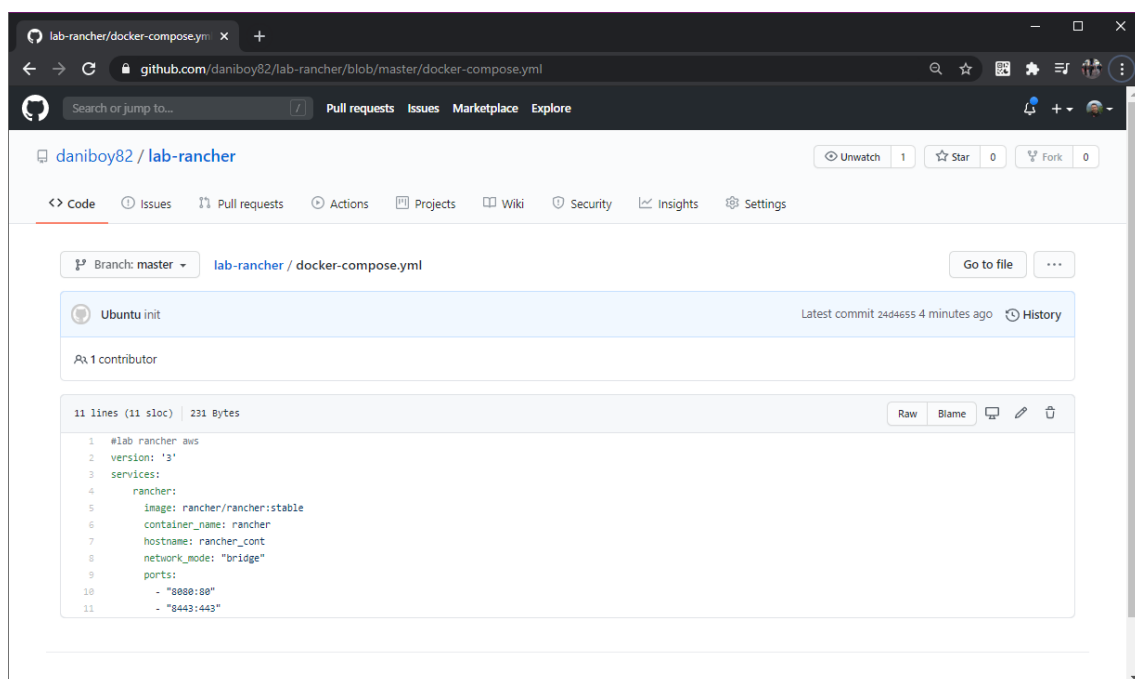
Pré-requisitos

- Instalação Docker e Docker-compose
- Liberação portas 80, 8080, 8443 e 22

Instalação do rancher

Realizar fork do repo <https://github.com/daniboy82/lab-rancher> e clonar na máquina t2.large EC2 ubuntu server.

Dentro desse repo existe o arquivo docker-compose.yml:



The screenshot shows the GitHub interface for the repository 'daniboy82 / lab-rancher'. The file 'lab-rancher / docker-compose.yml' is selected, showing its content. The file is 11 lines long and 231 bytes. The content of the file is as follows:

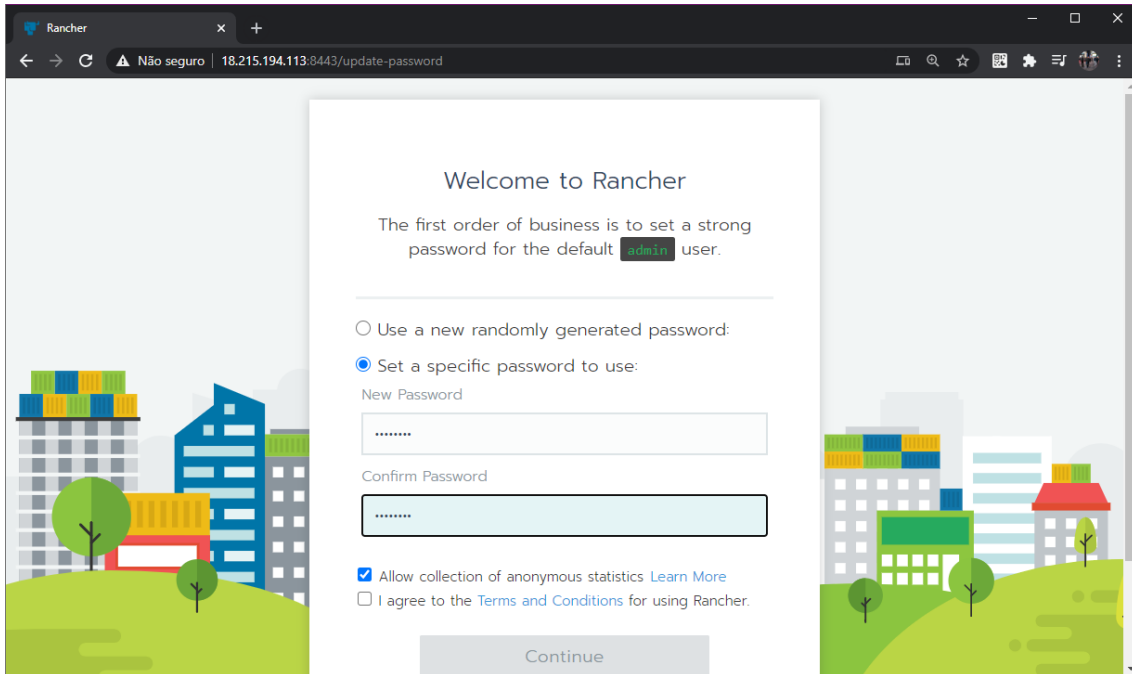
```
1 #lab rancher aws
2 version: '3'
3 services:
4   rancher:
5     image: rancher/rancher:stable
6     container_name: rancher
7     hostname: rancher_cont
8     network_mode: "bridge"
9     ports:
10      - "8080:80"
11      - "8443:443"
```

Depois de clonar:

```
cd lab-rancher
```

```
docker-compose up -d
```

Acessar pelo chrome <https://ip-elastico:8443>.

A screenshot of the Rancher web interface. The browser address bar shows '18.215.194.113:8443/update-password'. The page has a light gray background with a colorful illustration of a city skyline on the left and right. In the center, a white card contains the text 'Welcome to Rancher' and 'The first order of business is to set a strong password for the default admin user.' Below this, there are two radio buttons: 'Use a new randomly generated password:' (unselected) and 'Set a specific password to use:' (selected). Under the selected option, there are two text input fields labeled 'New Password' and 'Confirm Password', both containing masked characters. At the bottom of the card, there are two checkboxes: 'Allow collection of anonymous statistics' (checked) with a 'Learn More' link, and 'I agree to the Terms and Conditions for using Rancher.' (unchecked). A 'Continue' button is at the bottom right of the card.

Welcome to Rancher

The first order of business is to set a strong password for the default `admin` user.

☐ Use a new randomly generated password:

☒ Set a specific password to use:

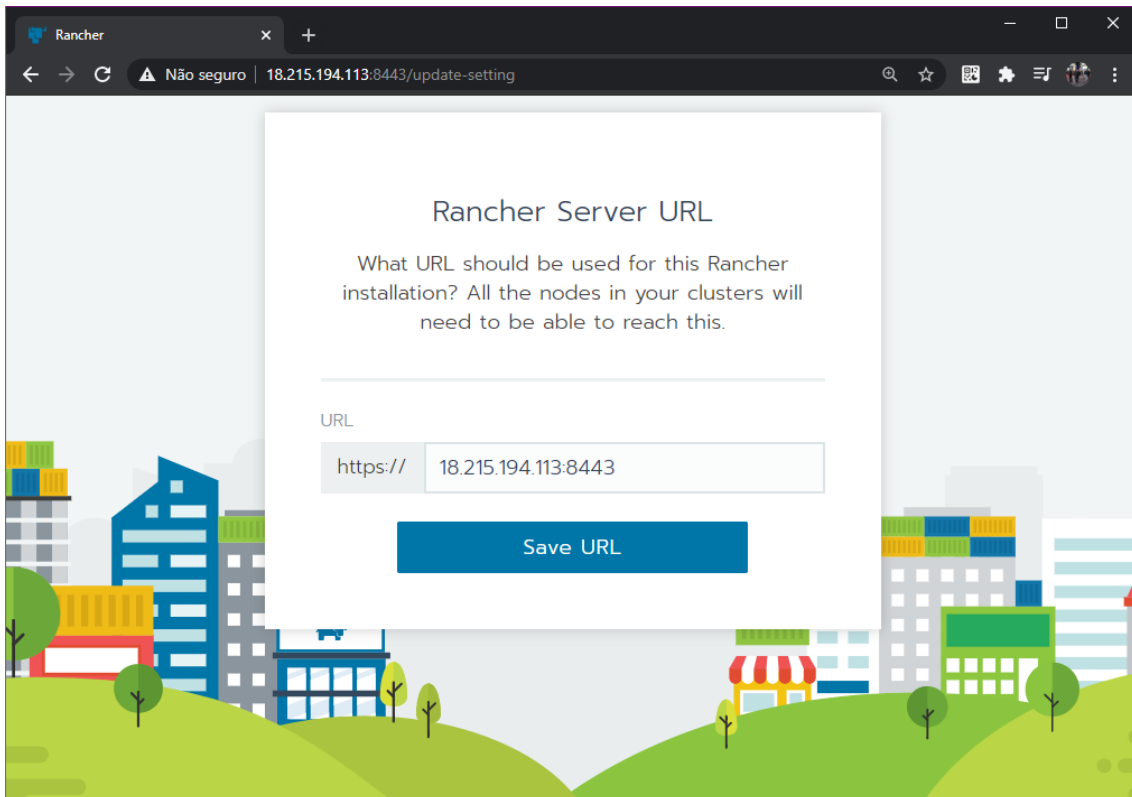
New Password

Confirm Password

☒ Allow collection of anonymous statistics [Learn More](#)

☐ I agree to the [Terms](#) and [Conditions](#) for using Rancher.

Continue

A screenshot of the Rancher web interface. The browser address bar shows '18.215.194.113:8443/update-setting'. The page has a light gray background with a colorful illustration of a city skyline on the left and right. In the center, a white card contains the text 'Rancher Server URL' and 'What URL should be used for this Rancher installation? All the nodes in your clusters will need to be able to reach this.' Below this, there is a text input field labeled 'URL' containing 'https:// 18.215.194.113:8443'. A blue 'Save URL' button is at the bottom of the card.

Rancher Server URL

What URL should be used for this Rancher installation? All the nodes in your clusters will need to be able to reach this.

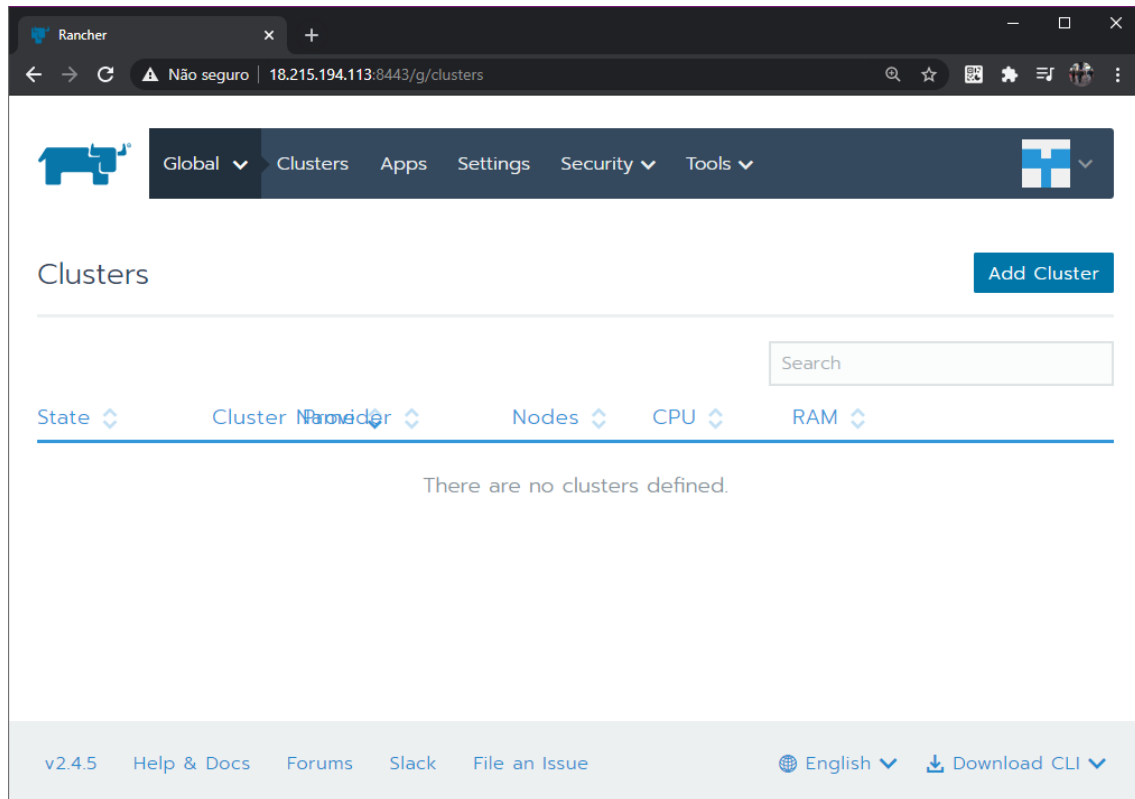
URL

https:// 18.215.194.113:8443

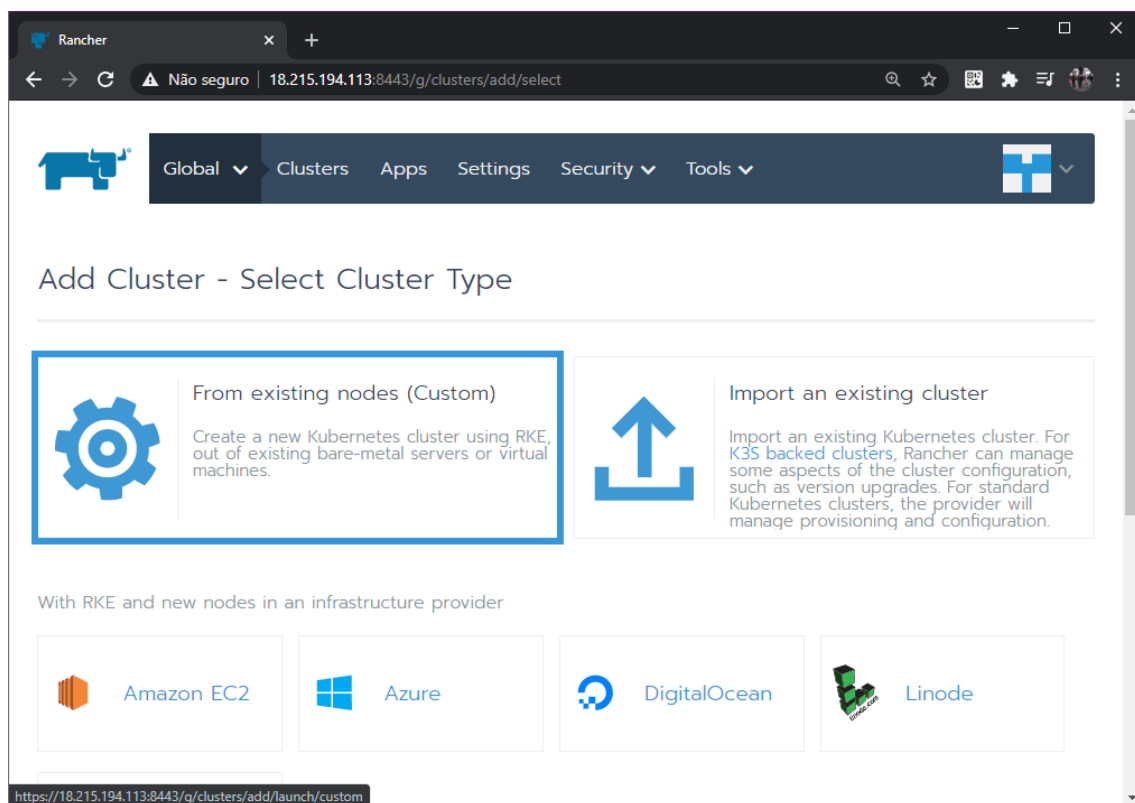
Save URL

CRIANDO CLUSTER NO RANCHER

Add cluster:



From existing node...



Rancher

Não seguro | 18.215.194.113:8443/g/clusters/add/launch/custom

Global Clusters Apps Settings Security Tools

Add Cluster - Custom

Cluster Name * [Add a Description](#)

cluster-dev

Member Roles
Control who has access to the cluster and what permission they have to change it.

Labels & Annotations
Configure labels and annotations for the cluster. None

Cluster Options [Edit as YAML](#)

[Expand All](#)

Deixar com valores default:

The screenshot shows the 'Kubernetes Options' configuration page in the Rancher web interface. The page is titled 'Kubernetes Options' with a subtitle 'Customize the kubernetes cluster options'. It features several configuration sections: 'Kubernetes Version' with a dropdown menu set to 'v1.18.3-rancher2-2'; 'Network Provider' with a dropdown menu set to 'Canal (Network Isolation / ...'; 'Windows Support' with radio buttons for 'Enabled' and 'Disabled' (selected), and a note 'Available for Kubernetes 115 or above with Flannel network provider.'; 'Project Network Isolation' with radio buttons for 'Enabled' and 'Disabled' (selected); 'CNI Plugin MTU Override' with a text input field set to '0' and a detailed explanation of its use; and 'Cloud Provider' with a list of options: 'None' (selected), 'Amazon', 'Azure', 'Custom', and 'External'. A teal information box states: 'If your cloud provider is not listed, please use the **Custom** option.'

Rancher

Não seguro | 18.215.194.113:8443/g/clusters/add/launch/custom

Expand All

Kubernetes Options

Customize the kubernetes cluster options

Kubernetes Version

v1.18.3-rancher2-2

Network Provider

Canal (Network Isolation / ...

Windows Support

☐ Enabled

☒ Disabled

Available for Kubernetes 115 or above with Flannel network provider.

Project Network Isolation

☐ Enabled

☒ Disabled

CNI Plugin MTU Override

0

Only applied if the value is non-zero. When applied, the MTU value is explicitly configured for the chosen network provider (disabling auto-discovery). The override must be calculated from the host's MTU minus the CNI plugin's required overhead.

Cloud Provider ⓘ

i If your cloud provider is not listed, please use the **Custom** option.

☒ None

☐ Amazon

☐ Azure

☐ Custom

☐ External

Next:

CRIANDO NODES WORKER E CONTROL PLANE NO CLUSTER

Selecionar etcd, control plane e worker:

Customize Node Run Command
Editing node options will update the command you will run on your existing machines

1 Node Options
Choose what roles the node will have in the cluster

Node Role

☒ etcd ☒ Control Plane ☒ Worker

Show advanced options

2 Run this command on one or more existing machines already running a supported version of Docker.

```
sudo docker run -d --privileged --restart=unless-stopped --net=host -v /etc/kubernetes:/etc/kubernetes -v /var/run:/var/run rancher/rancher-agent:v2.4.5 --server https://18.215.194.113:8443 --token nzsmpb8t8nnq4nl6449ls6hjrprl8znw5cdrx9h6c475mb9zg8dxs9 --ca-checksum f3863c412d702a99804b51367b3f642db3be4137598b0bf7ddb1130441149148 --etcd --controlplane --worker
```

Save Cancel

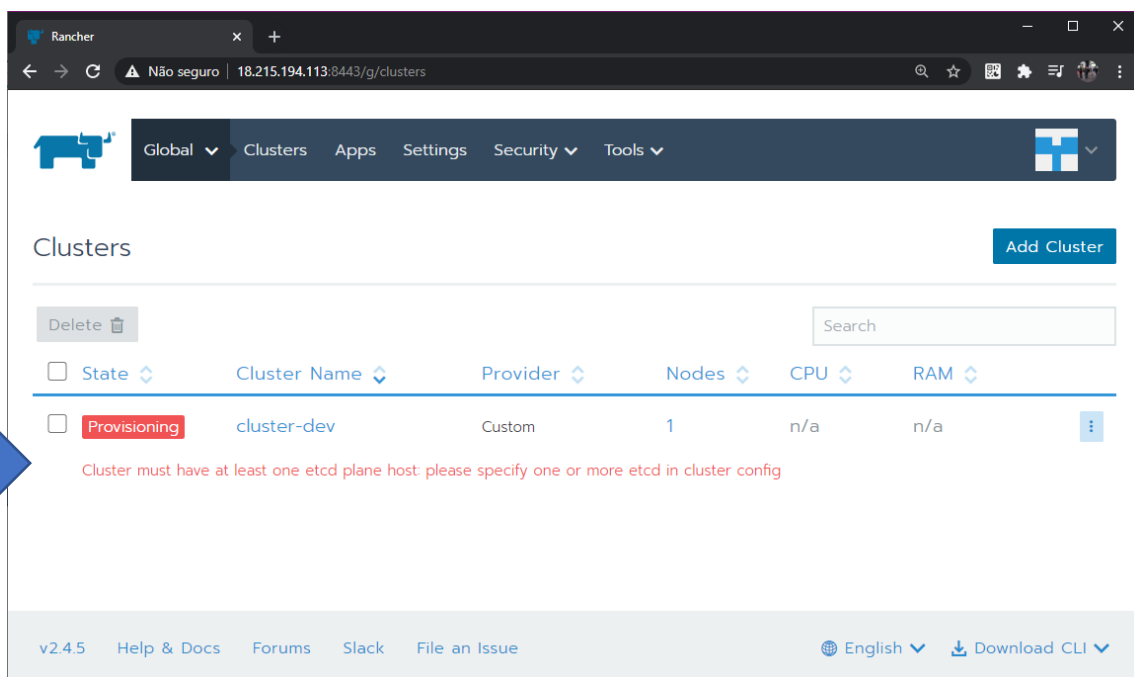
Copiar o comando

```
sudo docker run -d --privileged --restart=unless-stopped --net=host -v /etc/kubernetes:/etc/kubernetes -v /var/run:/var/run rancher/rancher-agent:v2.4.5 --server https://18.215.194.113:8443 --token pbgfcvjrp4dd66fmp8vhxmzgxjw24nq2t2gsswf6ql9zhxsbnptps --ca-checksum f3863c412d702a99804b51367b3f642db3be4137598b0bf7ddb1130441149148 --etcd --controlplane --worker
```

Executar no terminal:

```
ubuntu@ip-172-31-76-219: ~/lab-rancher
ubuntu@ip-172-31-76-219:~/lab-rancher$ sudo docker run -d --privileged --restart=unless-stopped --net=host -v /etc/kubernetes:/etc/kubernetes -v /var/run:/var/run rancher/rancher-agent:v2.4.5 --server https://18.215.194.113:8443 --token nzsmpb8t8nnq4nl64491s6hjrpri8znw5cdrx9h6c475mb9zg9dks9 --ca-checksum f3863c412d702a99804b51367b3f642db3be4137598b0bf7ddb1130441149148 --worker v2.4.5: Pulling from rancher/rancher-agent
d7c3167c320d: Already exists
131f805ec7fd: Already exists
322ed380e680: Already exists
6ac240b13098: Already exists
5e81a9083485: Pull complete
75a612f80662: Pull complete
8e043bd26579: Pull complete
e46e41019d9f: Pull complete
a6ea9e8522f2: Extracting [====>] 2.654MB/27.87MB
81d0f6906e2e: Download complete
```

Aguarde até que o cluster fique pronto:

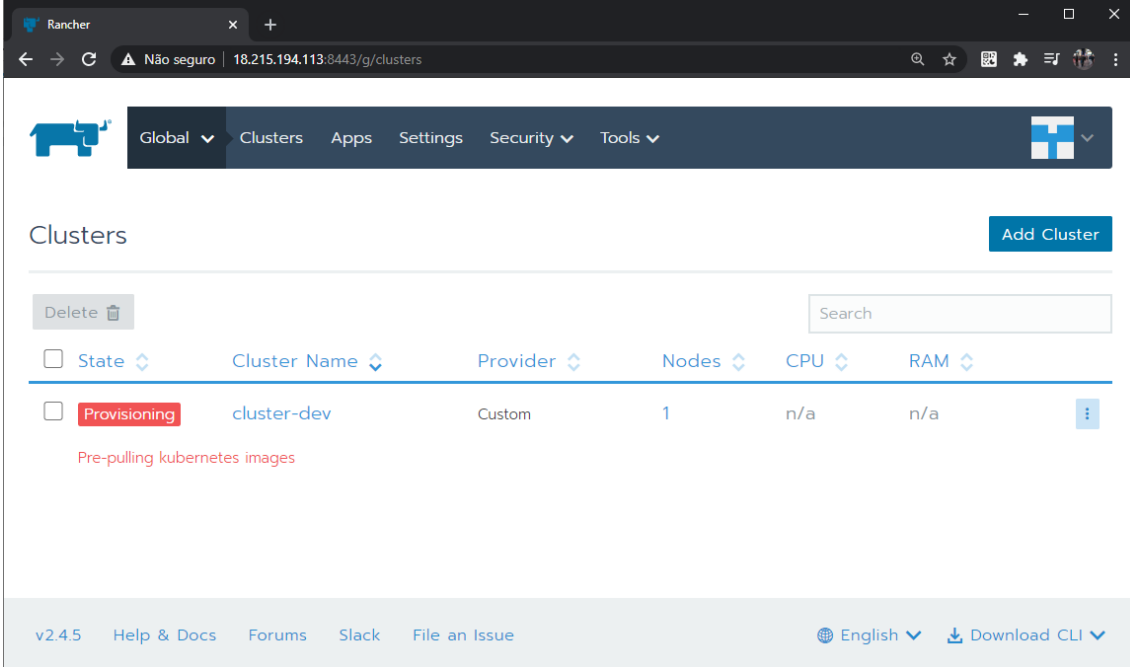


Rancher Clusters page showing a cluster in a provisioning state with an error message.

State	Cluster Name	Provider	Nodes	CPU	RAM
Provisioning	cluster-dev	Custom	1	n/a	n/a

Cluster must have at least one etcd plane host: please specify one or more etcd in cluster config

Aguarde...

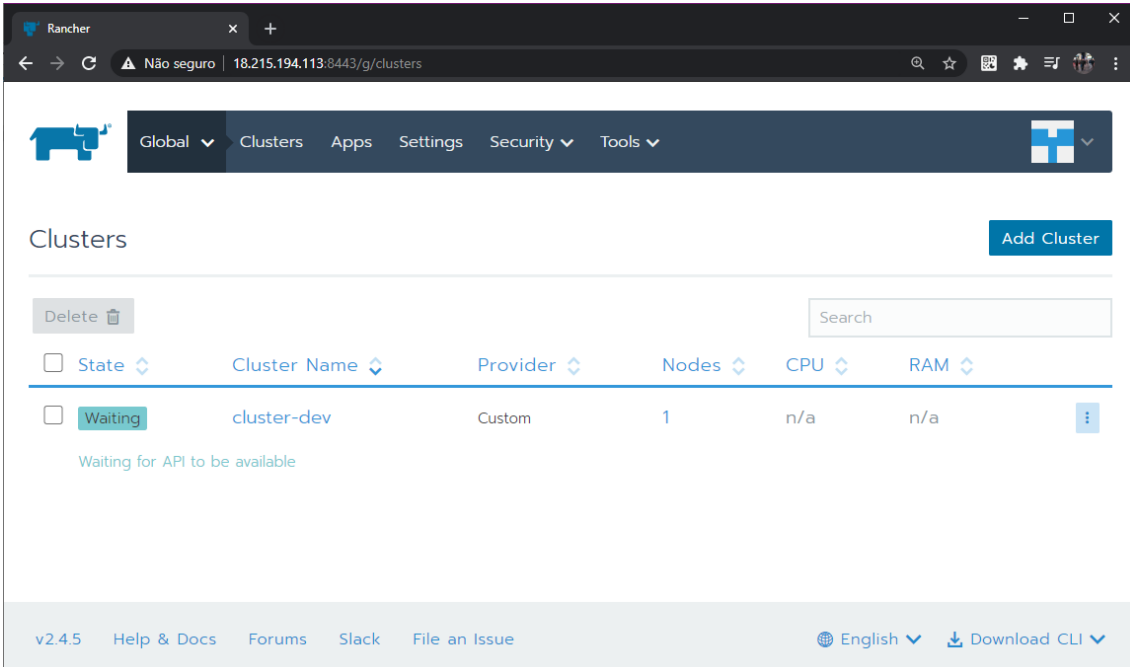


The screenshot shows the Rancher web interface. The top navigation bar includes 'Global', 'Clusters', 'Apps', 'Settings', 'Security', and 'Tools'. The 'Clusters' page is active, displaying a table with one cluster named 'cluster-dev'. The cluster's state is 'Provisioning', indicated by a red label. Below the table, a message reads 'Pre-pulling kubernetes images'. The footer shows the version 'v2.4.5' and links to 'Help & Docs', 'Forums', 'Slack', and 'File an Issue'. The language is set to 'English' and the 'Download CLI' link is visible.

State	Cluster Name	Provider	Nodes	CPU	RAM
Provisioning	cluster-dev	Custom	1	n/a	n/a

Pre-pulling kubernetes images

Aguarde mais um pouco...

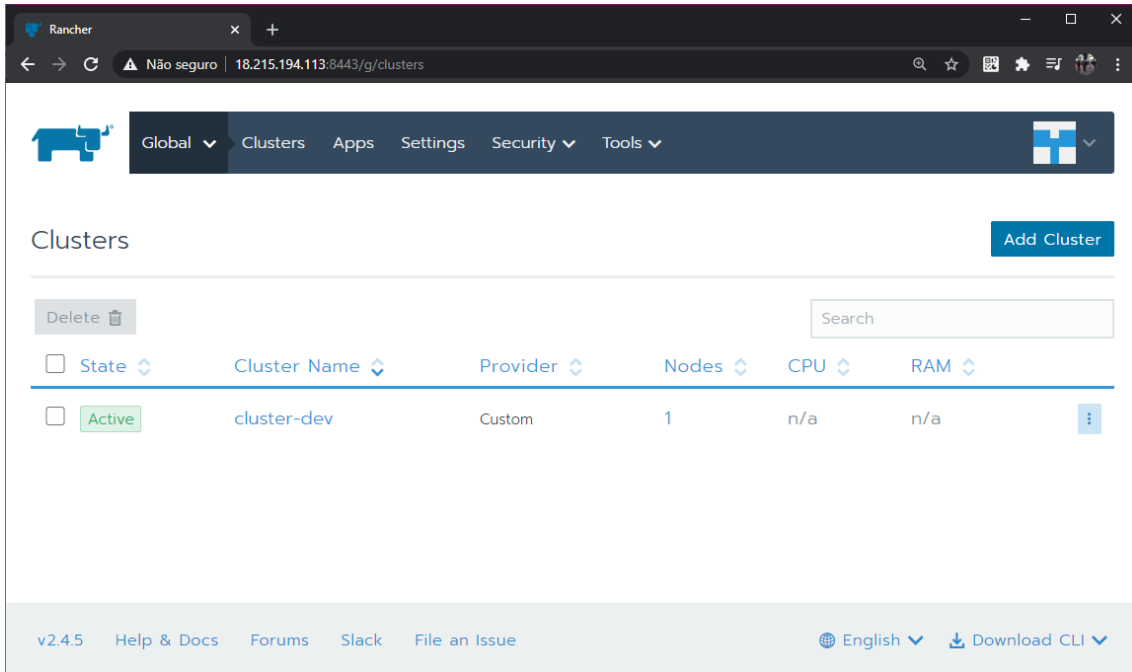


The screenshot shows the Rancher web interface with the 'cluster-dev' cluster now in the 'Waiting' state, indicated by a green label. Below the table, a message reads 'Waiting for API to be available'. The rest of the interface, including the navigation bar and footer, remains the same as in the previous screenshot.

State	Cluster Name	Provider	Nodes	CPU	RAM
Waiting	cluster-dev	Custom	1	n/a	n/a

Waiting for API to be available

Pronto:

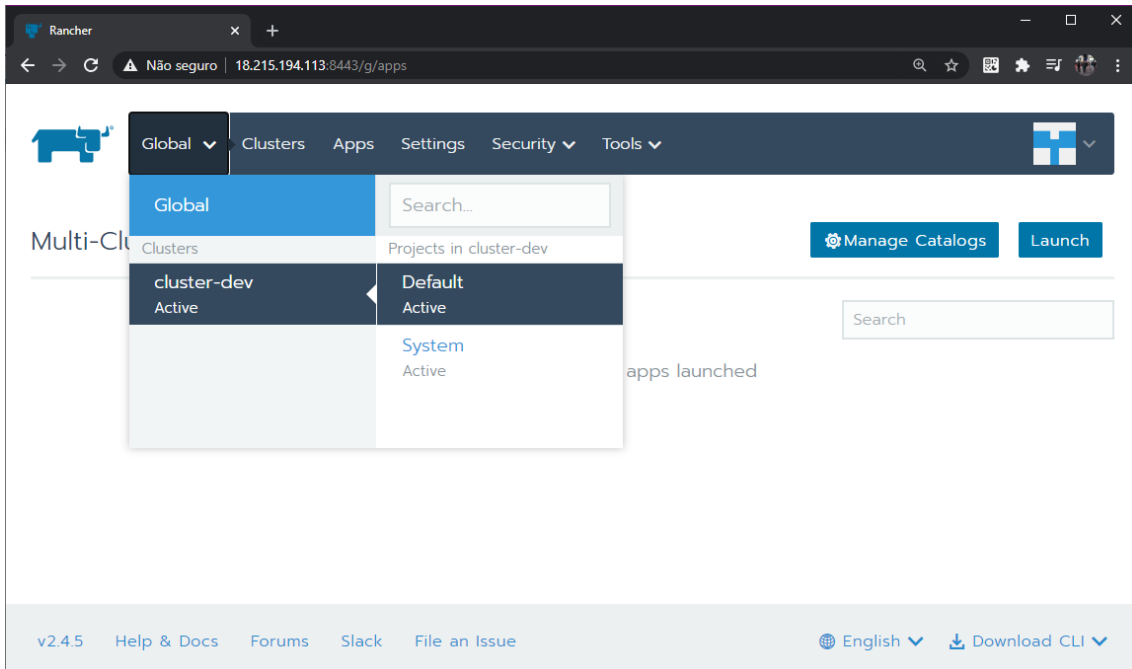


The screenshot shows the Rancher web interface. The top navigation bar includes 'Global', 'Clusters', 'Apps', 'Settings', 'Security', and 'Tools'. The 'Clusters' tab is selected. Below the navigation bar, the 'Clusters' section is displayed with an 'Add Cluster' button. A table lists the clusters:

State	Cluster Name	Provider	Nodes	CPU	RAM
Active	cluster-dev	Custom	1	n/a	n/a

The footer of the interface shows 'v2.4.5', 'Help & Docs', 'Forums', 'Slack', 'File an Issue', 'English', and 'Download CLI'.

Escolha o default o projeto:



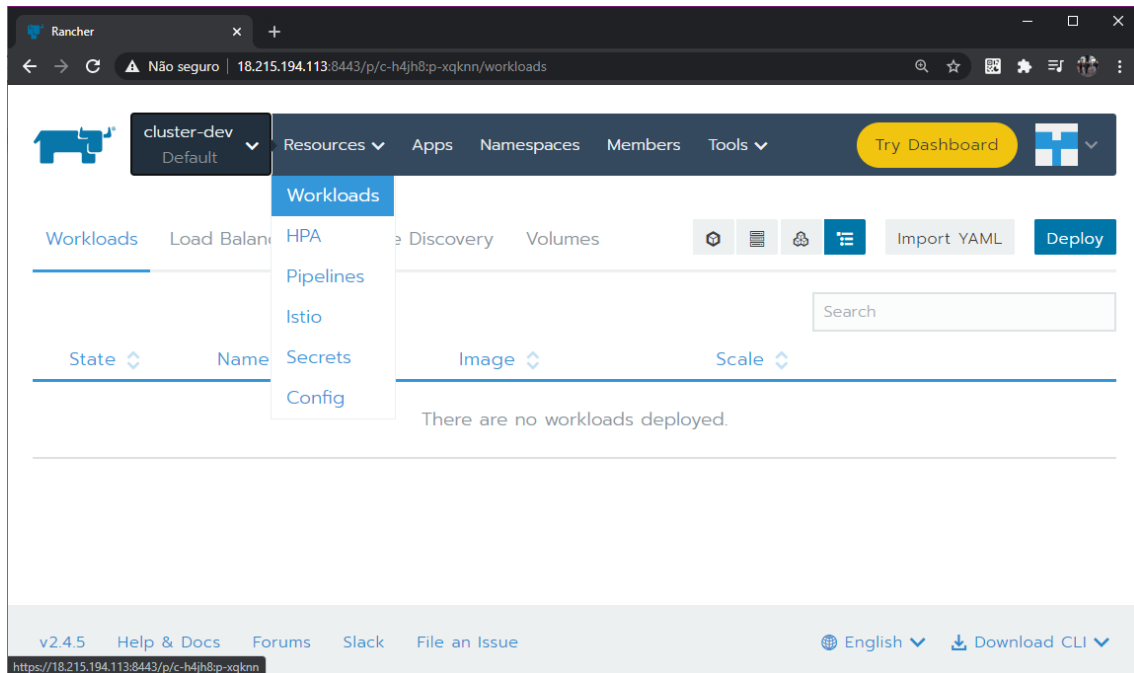
The screenshot shows the Rancher web interface with the 'Apps' tab selected. A dropdown menu is open, showing the 'cluster-dev' project. The 'Default' project is highlighted as the default project.

Project	Status
Default	Active
System	Active

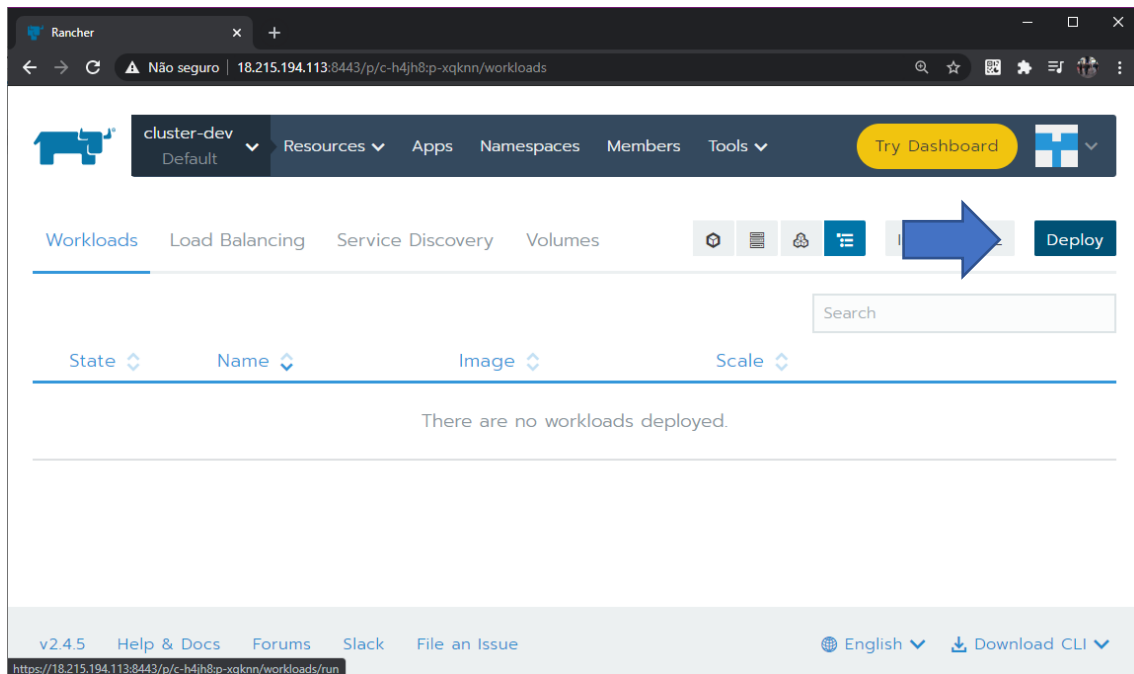
The footer of the interface shows 'v2.4.5', 'Help & Docs', 'Forums', 'Slack', 'File an Issue', 'English', and 'Download CLI'.

CRIANDO WORKLOAD NO CLUSTER DO RANCHER

Criar novo workload:



Deploy



Configure a app de acordo com o print abaixo:

The screenshot shows the 'Deploy Workload' form in the Rancher UI. The form is for a cluster named 'cluster-dev' in the 'Default' namespace. The workload name is 'minha-app'. The workload type is 'Scalable deployment of 1 pod'. The Docker Image is 'nginx:latest'. The namespace is 'default'. The port mapping is configured with Port Name 'p1', Publish the container port '80', Protocol 'TCP', and As a 'NodePort (On every node)'. The On listening port is 'Random'. There is an 'Add Port' button and an 'Expand All' link. The bottom of the form shows 'Environment Variables'.

Rancher

cluster-dev
Default

Resources Apps Namespaces Members Tools

Try Dashboard

Deploy Workload

Name *
minha-app

Workload Type
Scalable deployment of 1 pod

Docker Image *
nginx:latest

Namespace *
default

Port Mapping

Port Name	Publish the container port	Protocol	As a	On listening port
p1	80	TCP	NodePort (On every node)	Random

+ Add Port

Expand All

Environment Variables

Clique em launch:

The screenshot shows the 'Workloads' page in the Rancher UI. The workload 'minha-app' is in the 'default' namespace. It is in the 'Updating' state. The deployment does not have minimum availability. The image is 'nginx:latest'. The scale is 1. The page includes buttons for 'Redeploy', 'Pause Orchestration', 'Download YAML', and 'Delete'. There is a search bar and a 'Deploy' button. The footer shows the version 'v2.4.5' and links for 'Help & Docs', 'Forums', 'Slack', and 'File an Issue'.

Rancher

cluster-dev
Default

Resources Apps Namespaces Members Tools

Try Dashboard

Workloads Load Balancing Service Discovery Volumes

Redeploy Pause Orchestration Download YAML Delete

Search

State	Name	Image	Scale
Updating	minha-app	nginx:latest	1

Namespace: default

minha-app
Deployment does not have minimum availability.

nginx:latest
1 Pod / Created a few seconds ago / Pod Restarts: 0

v2.4.5 Help & Docs Forums Slack File an Issue

English Download CLI

Entre na porta associada:

The screenshot shows the Rancher web interface. At the top, there's a navigation bar with 'cluster-dev' selected. Below it, a secondary bar shows 'Workloads', 'Load Balancing', 'Service Discovery', and 'Volumes'. A search bar is on the right. The main content area displays a table of workloads. The first workload is 'minha-app' in the 'default' namespace, with a status of 'Active'. A blue arrow points to the 'minha-app' text. To the right of the workload name, it says 'nginx:latest' and '1 Pod / Created a few seconds ago / Pod Restarts: 0'. The bottom of the interface shows version 'v2.4.5' and links for 'Help & Docs', 'Forums', 'Slack', and 'File an Issue'.

LIBERANDO PORTA NO FIREWALL PARA ACESSAR WORKLOAD (NGINX)

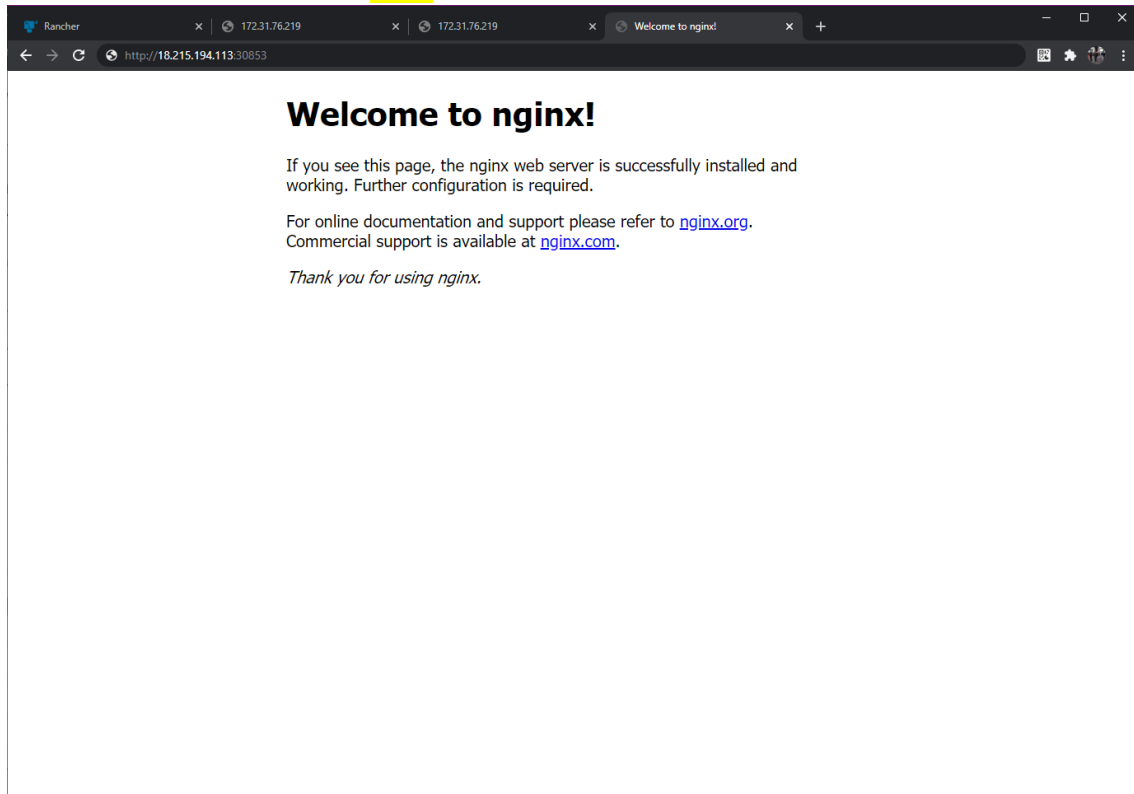
Libere a porta no firewall (qualquer ip):

The screenshot shows the AWS Management Console 'Inbound rules' page for a security group. The table lists existing rules, and a new rule is being added. The new rule is a 'Custom TCP' rule for port 30853, allowing traffic from '0.0.0.0/0'. The 'Description' field is empty.

Type	Protocol	Port range	Source	Description - optional
HTTP	TCP	80	0.0.0.0/0	-
HTTP	TCP	80	:::0	-
Custom TCP	TCP	8080	0.0.0.0/0	-
Custom TCP	TCP	8080	:::0	-
SSH	TCP	22	0.0.0.0/0	-
SSH	TCP	22	:::0	-
Custom TCP	TCP	30853	0.0.0.0/0	
Custom TCP	TCP	30853	:::0	
Custom TCP	TCP	8443	0.0.0.0/0	-
Custom TCP	TCP	8443	:::0	-
Custom TCP	TCP	85	0.0.0.0/0	-
Custom TCP	TCP	85	:::0	-

TESTANDO APLICAÇÃO

Acesso a url do workload com HTTP



Agora é sua vez, crie um workload do wordpress ou outra aplicação do seu gosto.