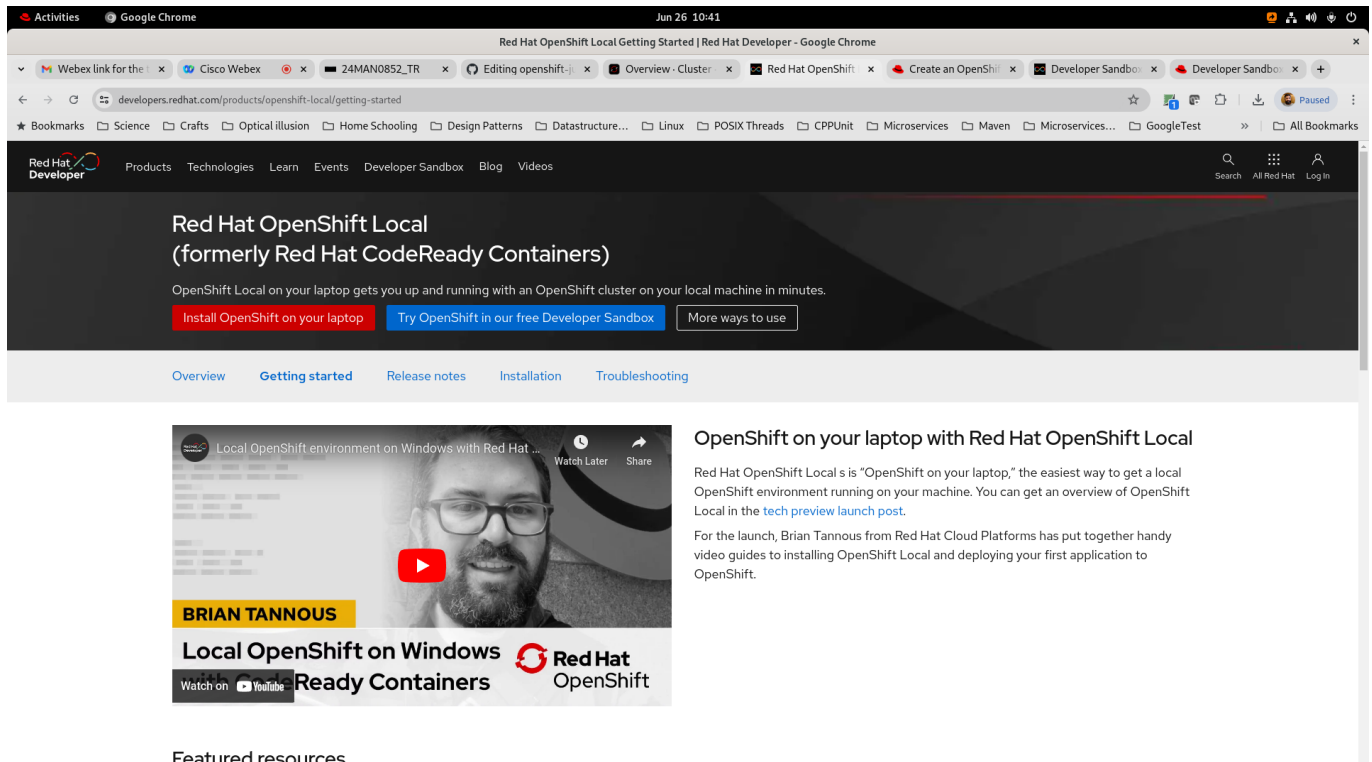


Red Hat OpenShift 2024 (24 June to 28 June 2024)

Installing Red Hat OpenShift on your laptop

<https://developers.redhat.com/products/openshift-local/getting-started>

For a completely functional local openshift cluster, you may go for CRC(Code Ready Containers) setup in Windows, Mac or Linux



Red Hat OpenShift Local (formerly Red Hat CodeReady Containers)

OpenShift Local on your laptop gets you up and running with an OpenShift cluster on your local machine in minutes.

[Install OpenShift on your laptop](#) [Try OpenShift in our free Developer Sandbox](#) [More ways to use](#)

[Overview](#) [Getting started](#) [Release notes](#) [Installation](#) [Troubleshooting](#)

Local OpenShift environment on Windows with Red Hat ...

BRIAN TANNOUS

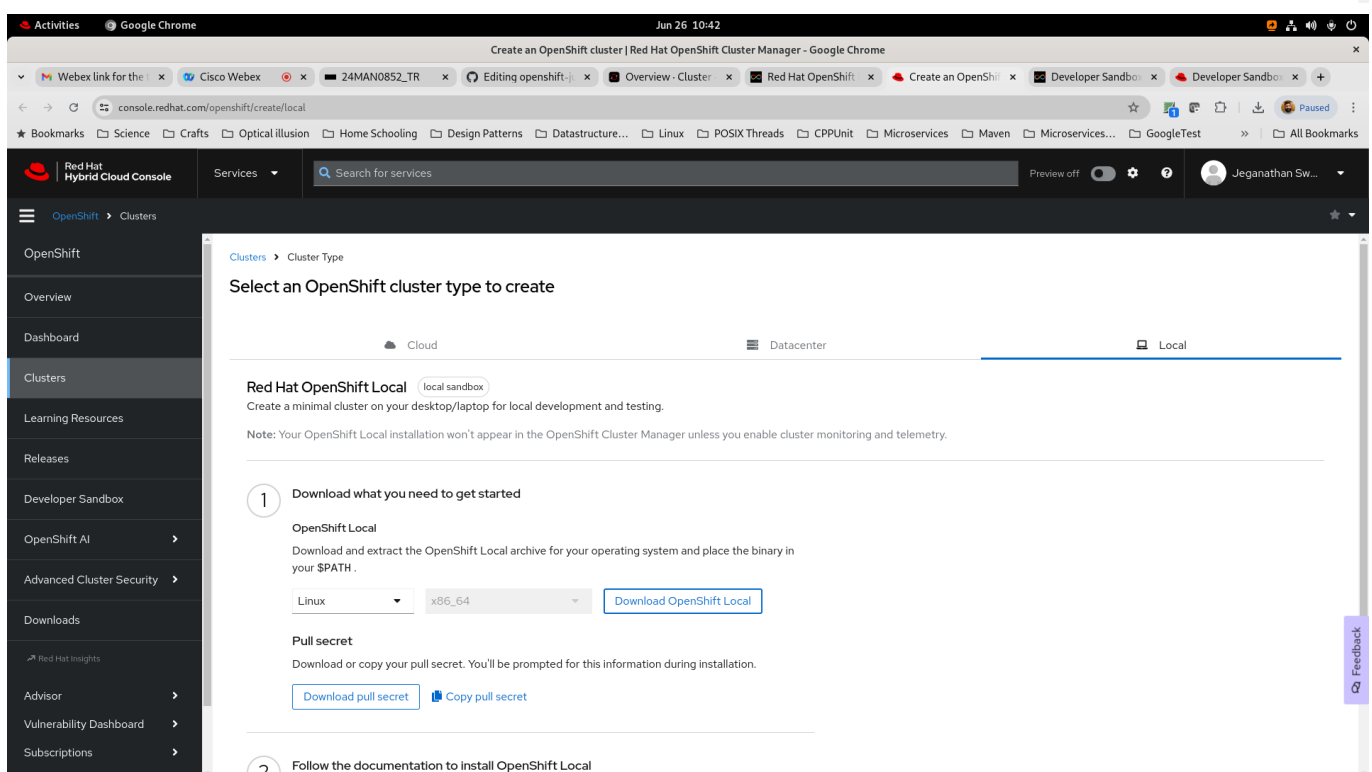
Local OpenShift on Windows with Red Hat CodeReady Containers

OpenShift on your laptop with Red Hat OpenShift Local

Red Hat OpenShift Local is "OpenShift on your laptop," the easiest way to get a local OpenShift environment running on your machine. You can get an overview of OpenShift Local in the [tech preview launch post](#).

For the launch, Brian Tannous from Red Hat Cloud Platforms has put together handy video guides to installing OpenShift Local and deploying your first application to OpenShift.

Featured resources



Create an OpenShift cluster | Red Hat OpenShift Cluster Manager

OpenShift > Clusters

OpenShift

Overview

Dashboard

Clusters

Learning Resources

Releases

Developer Sandbox

OpenShift AI

Advanced Cluster Security

Downloads

Red Hat Insights

Advisor

Vulnerability Dashboard

Subscriptions

Clusters > Cluster Type

Select an OpenShift cluster type to create

Cloud Datacenter Local

Red Hat OpenShift Local (local sandbox)

Create a minimal cluster on your desktop/laptop for local development and testing.

Note: Your OpenShift Local installation won't appear in the OpenShift Cluster Manager unless you enable cluster monitoring and telemetry.

1 Download what you need to get started

OpenShift Local

Download and extract the OpenShift Local archive for your operating system and place the binary in your \$PATH.

Linux x86_64 [Download OpenShift Local](#)

Pull secret

Download or copy your pull secret. You'll be prompted for this information during installation.

[Download pull secret](#) [Copy pull secret](#)

2 Follow the documentation to install OpenShift Local

```
Activities Terminal Jun 26 10:40
jegan@tektutor.org
jegan@tektutor.org ~/Downloads/crc-linux-2.37.1-amd64 ./crc setup
CRC is constantly improving and we would like to know more about usage (more details at https://developers.redhat.com/article/tool-data-collection)
Your preference can be changed manually if desired using 'crc config set consent-telemetry <yes/no>'
Would you like to contribute anonymous usage statistics? [y/N]: y
Thanks for helping us! You can disable telemetry with the command 'crc config set consent-telemetry no'.
INFO Using bundle path /home/jegan/.crc/cache/crc_libvirt_4.15.14_amd64.crcbundle
INFO Checking if running as non-root
INFO Checking if running inside WSL2
INFO Checking if crc-admin-helper executable is cached
INFO Caching crc-admin-helper executable
INFO Using root access: Changing ownership of /home/jegan/.crc/bin/crc-admin-helper-linux
[sudo] password for jegan:
INFO Using root access: Setting suid for /home/jegan/.crc/bin/crc-admin-helper-linux
INFO Checking if running on a supported CPU architecture
INFO Checking if crc executable symlink exists
INFO Creating symlink for crc executable
INFO Checking minimum RAM requirements
INFO Check if Podman binary exists in: /home/jegan/.crc/bin/oc
INFO Checking if Virtualization is enabled
INFO Checking if KVM is enabled
INFO Checking if libvirt is installed
INFO Checking if user is part of libvirt group
INFO Adding user to libvirt group
INFO Using root access: Adding user to the libvirt group
INFO Checking if active user/process is currently part of the libvirt group
INFO Checking if libvirt daemon is running
INFO Checking if a supported libvirt version is installed
INFO Checking if crc-driver-libvirt is installed
INFO Installing crc-driver-libvirt
INFO Checking crc daemon systemd service
INFO Setting up crc daemon systemd service
INFO Checking crc daemon systemd socket units
INFO Setting up crc daemon systemd socket units
INFO Checking if systemd-networkd is running
INFO Checking if NetworkManager is installed
INFO Checking if NetworkManager service is running
```

```
Activities Terminal Jun 26 10:42
jegan@tektutor.org
GitCommit: de40ad0
jegan@tektutor.org ~/Downloads/crc-linux-2.37.1-amd64 ./crc setup
CRC is constantly improving and we would like to know more about usage (more details at https://developers.redhat.com/article/tool-data-collection)
Your preference can be changed manually if desired using 'crc config set consent-telemetry <yes/no>'
Would you like to contribute anonymous usage statistics? [y/N]: y
Thanks for helping us! You can disable telemetry with the command 'crc config set consent-telemetry no'.
INFO Using bundle path /home/jegan/.crc/cache/crc_libvirt_4.15.14_amd64.crcbundle
INFO Checking if running as non-root
INFO Checking if running inside WSL2
INFO Checking if crc-admin-helper executable is cached
INFO Caching crc-admin-helper executable
INFO Using root access: Changing ownership of /home/jegan/.crc/bin/crc-admin-helper-linux
[sudo] password for jegan:
INFO Using root access: Setting suid for /home/jegan/.crc/bin/crc-admin-helper-linux
INFO Checking if running on a supported CPU architecture
INFO Checking if crc executable symlink exists
INFO Creating symlink for crc executable
INFO Checking minimum RAM requirements
INFO Check if Podman binary exists in: /home/jegan/.crc/bin/oc
INFO Checking if Virtualization is enabled
INFO Checking if KVM is enabled
INFO Checking if libvirt is installed
INFO Checking if user is part of libvirt group
INFO Adding user to libvirt group
INFO Using root access: Adding user to the libvirt group
INFO Checking if active user/process is currently part of the libvirt group
INFO Checking if libvirt daemon is running
INFO Checking if a supported libvirt version is installed
INFO Checking if crc-driver-libvirt is installed
INFO Installing crc-driver-libvirt
INFO Checking crc daemon systemd service
INFO Setting up crc daemon systemd service
INFO Checking crc daemon systemd socket units
INFO Setting up crc daemon systemd socket units
INFO Checking if systemd-networkd is running
INFO Checking if NetworkManager is installed
```

```

Activities Terminal Jun 26 10:42
jegan@tektutor.org

INFO Adding user to libvirt group
INFO Using root access: Adding user to the libvirt group
INFO Checking if active user/process is currently part of the libvirt group
INFO Checking if libvirt daemon is running
INFO Checking if a supported libvirt version is installed
INFO Checking if crc-driver-libvirt is installed
INFO Installing crc-driver-libvirt
INFO Checking crc daemon systemd service
INFO Setting up crc daemon systemd service
INFO Checking crc daemon systemd socket units
INFO Setting up crc daemon systemd socket units
INFO Checking if systemd-networkd is running
INFO Checking if NetworkManager is installed
INFO Checking if NetworkManager service is running
INFO Checking if /etc/NetworkManager/conf.d/crc-nm-dnsmasq.conf exists
INFO Writing Network Manager config for crc
INFO Using root access: Writing NetworkManager configuration to /etc/NetworkManager/conf.d/crc-nm-dnsmasq.conf
INFO Using root access: Changing permissions for /etc/NetworkManager/conf.d/crc-nm-dnsmasq.conf to 644
INFO Using root access: Executing systemctl daemon-reload command
INFO Using root access: Executing systemctl reload NetworkManager
INFO Checking if /etc/NetworkManager/dnsmasq.d/crc.conf exists
INFO Writing dnsmasq config for crc
INFO Using root access: Writing NetworkManager configuration to /etc/NetworkManager/dnsmasq.d/crc.conf
INFO Using root access: Changing permissions for /etc/NetworkManager/dnsmasq.d/crc.conf to 644
INFO Using root access: Executing systemctl daemon-reload command
INFO Using root access: Executing systemctl reload NetworkManager
INFO Checking if libvirt 'crc' network is available
INFO Setting up libvirt 'crc' network
INFO Checking if libvirt 'crc' network is active
INFO Starting libvirt 'crc' network
INFO Checking if CRC bundle is extracted in '$HOME/.crc'
INFO Checking if /home/jegan/.crc/cache/crc_libvirt_4.15.14_amd64.crcbundle exists
INFO Getting bundle for the CRC executable
INFO Downloading bundle: /home/jegan/.crc/cache/crc_libvirt_4.15.14_amd64.crcbundle...
4.69 GiB / 4.69 GiB [-----] 100.00% 21.60 MiB/s
INFO Uncompressing /home/jegan/.crc/cache/crc_libvirt_4.15.14_amd64.crcbundle
crc.qcow2: 10.05 GiB / 20.11 GiB [-----] 49.96%

Activities Terminal Jun 26 10:48
jegan@tektutor.org

INFO Checking if libvirt daemon is running
INFO Checking if a supported libvirt version is installed
INFO Checking if crc-driver-libvirt is installed
INFO Installing crc-driver-libvirt
INFO Checking crc daemon systemd service
INFO Setting up crc daemon systemd service
INFO Checking crc daemon systemd socket units
INFO Setting up crc daemon systemd socket units
INFO Checking if systemd-networkd is running
INFO Checking if NetworkManager is installed
INFO Checking if NetworkManager service is running
INFO Checking if /etc/NetworkManager/conf.d/crc-nm-dnsmasq.conf exists
INFO Writing Network Manager config for crc
INFO Using root access: Writing NetworkManager configuration to /etc/NetworkManager/conf.d/crc-nm-dnsmasq.conf
INFO Using root access: Changing permissions for /etc/NetworkManager/conf.d/crc-nm-dnsmasq.conf to 644
INFO Using root access: Executing systemctl daemon-reload command
INFO Using root access: Executing systemctl reload NetworkManager
INFO Checking if /etc/NetworkManager/dnsmasq.d/crc.conf exists
INFO Writing dnsmasq config for crc
INFO Using root access: Writing NetworkManager configuration to /etc/NetworkManager/dnsmasq.d/crc.conf
INFO Using root access: Changing permissions for /etc/NetworkManager/dnsmasq.d/crc.conf to 644
INFO Using root access: Executing systemctl daemon-reload command
INFO Using root access: Executing systemctl reload NetworkManager
INFO Checking if libvirt 'crc' network is available
INFO Setting up libvirt 'crc' network
INFO Checking if libvirt 'crc' network is active
INFO Starting libvirt 'crc' network
INFO Checking if CRC bundle is extracted in '$HOME/.crc'
INFO Checking if /home/jegan/.crc/cache/crc_libvirt_4.15.14_amd64.crcbundle exists
INFO Getting bundle for the CRC executable
INFO Downloading bundle: /home/jegan/.crc/cache/crc_libvirt_4.15.14_amd64.crcbundle...
4.69 GiB / 4.69 GiB [-----] 100.00% 21.60 MiB/s
INFO Uncompressing /home/jegan/.crc/cache/crc_libvirt_4.15.14_amd64.crcbundle
crc.qcow2: 20.11 GiB / 20.11 GiB [-----] 100.00%
oc: 149.79 MiB / 149.79 MiB [-----] 100.00%
Your system is correctly setup for using CRC. Use 'crc start' to start the instance
jegan@tektutor.org ~/Downloads/crc-linux-2.37.1-amd64

```

```

INFO Checking if user is part of libvirt group
INFO Checking if active user/process is currently part of the libvirt group
INFO Checking if libvirt daemon is running
INFO Checking if a supported libvirt version is installed
INFO Checking if crc-driver-libvirt is installed
INFO Checking if crc daemon systemd socket units
INFO Checking if systemd-networkd is running
INFO Checking if NetworkManager is installed
INFO Checking if NetworkManager service is running
INFO Checking if /etc/NetworkManager/conf.d/crc-nm-dnsmasq.conf exists
INFO Checking if /etc/NetworkManager/dnsmasq.d/crc.conf exists
INFO Checking if libvirt 'crc' network is available
INFO Checking if libvirt 'crc' network is active
INFO Loading bundle: crc_libvirt 4.15.14 amd64...
CRC requires a pull secret to download content from Red Hat.
You can copy it from the Pull Secret section of https://console.redhat.com/openshift/create/local.
? Please enter the pull secret *****

INFO Creating CRC VM for OpenShift 4.15.14...
INFO Generating new SSH key pair...
INFO Generating new password for the kubeadmin user
INFO Starting CRC VM for openshift 4.15.14...
INFO CRC instance is running with IP 192.168.130.11
INFO CRC VM is running
INFO Updating authorized keys...
INFO Configuring shared directories
INFO Check internal and public DNS query...
INFO Check DNS query from host...
INFO Verifying validity of the kubelet certificates...
INFO Starting kubelet service
INFO Waiting for kube-apiserver availability... [takes around 2min]
INFO Adding user's pull secret to the cluster...
INFO Updating SSH key to machine config resource...
INFO Waiting until the user's pull secret is written to the instance disk...
█

INFO Updating authorized keys...
INFO Configuring shared directories
INFO Check internal and public DNS query...
INFO Check DNS query from host...
INFO Verifying validity of the kubelet certificates...
INFO Starting kubelet service
INFO Waiting for kube-apiserver availability... [takes around 2min]
INFO Adding user's pull secret to the cluster...
INFO Updating SSH key to machine config resource...
INFO Waiting until the user's pull secret is written to the instance disk...
INFO Changing the password for the kubeadmin user
INFO Updating cluster ID...
INFO Updating root CA cert to admin-kubeconfig-client-ca configmap...
INFO Starting openshift instance... [waiting for the cluster to stabilize]
INFO Operator console is progressing
INFO Operator console is progressing
INFO All operators are available. Ensuring stability...
INFO Operators are stable (2/3)...
INFO Operators are stable (3/3)...
INFO Adding crc-admin and crc-developer contexts to kubeconfig...
Started the OpenShift cluster.

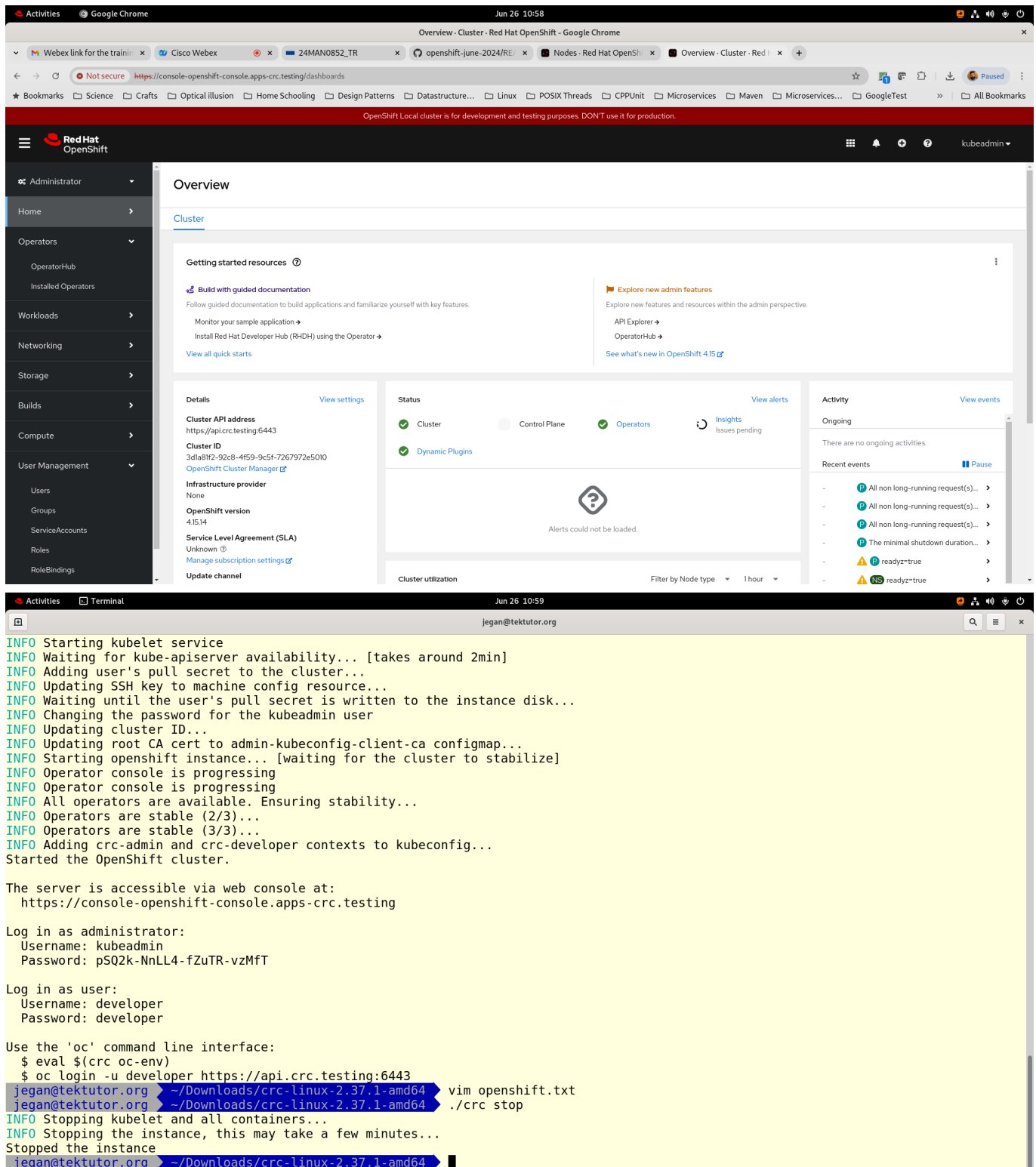
The server is accessible via web console at:
https://console-openshift-console.apps-crc.testing

Log in as administrator:
Username: kubeadmin
Password: pSQ2k-NnLL4-fZuTR-vzMfT

Log in as user:
Username: developer
Password: developer

Use the 'oc' command line interface:
$ eval $(crc oc-env)
$ oc login -u developer https://api.crc.testing:6443
jegan@tektutor.org ~/Downloads/crc-linux-2.37.1-amd64

```



The image shows two screenshots. The top screenshot is the Red Hat OpenShift console interface, displaying the 'Overview' page for a cluster. The left sidebar shows navigation options like Administrator, Home, Operators, Workloads, Networking, Storage, Builds, Compute, and User Management. The main content area shows 'Getting started resources' and 'Details' for the cluster, including the API address, ID, and version. The 'Status' section shows the cluster is ready, with control plane and operators in a stable state. The bottom screenshot is a terminal window showing the installation of OpenShift on a CRC (CodeReady Containers) environment. It includes commands for starting kubelet, adding pull secrets, updating SSH keys, and logging in as administrator and user. The terminal output shows the cluster is successfully installed and ready for use.

```

INFO Starting kubelet service
INFO Waiting for kube-apiserver availability... [takes around 2min]
INFO Adding user's pull secret to the cluster...
INFO Updating SSH key to machine config resource...
INFO Waiting until the user's pull secret is written to the instance disk...
INFO Changing the password for the kubeadmin user
INFO Updating cluster ID...
INFO Updating root CA cert to admin-kubeconfig-client-ca configmap...
INFO Starting openshift instance... [waiting for the cluster to stabilize]
INFO Operator console is progressing
INFO Operator console is progressing
INFO All operators are available. Ensuring stability...
INFO Operators are stable (2/3)...
INFO Operators are stable (3/3)...
INFO Adding crc-admin and crc-developer contexts to kubeconfig...
Started the OpenShift cluster.

The server is accessible via web console at:
https://console-openshift-console.apps-crc.testing

Log in as administrator:
Username: kubeadmin
Password: p5Q2k-NnLL4-fZuTR-vzMfT

Log in as user:
Username: developer
Password: developer

Use the 'oc' command line interface:
$ eval $(crc oc-env)
$ oc login -u developer https://api.crc.testing:6443
jegan@tektutor.org ~/Downloads/crc-linux-2.37.1-amd64 vim openshift.txt
jegan@tektutor.org ~/Downloads/crc-linux-2.37.1-amd64 ./crc stop
INFO Stopping kubelet and all containers...
INFO Stopping the instance, this may take a few minutes...
Stopped the instance
jegan@tektutor.org ~/Downloads/crc-linux-2.37.1-amd64

```

Kindly provide your first day feedback

<https://survey.zohopublic.com/zs/InDHab>

Cloning this Training Repository

```
cd ~
git clone https://github.com/tektutor/openshift-june-2024.git
```

```
cd openshift-june-2024
```

Tea & Lunch break Schedules

Morning Tea break - 11:15 to 11:30 am
Lunch break - 1:15 to 2:00 pm
Second Half - Tea break: 4:15 to 4:30 pm

Kindly proceed with the pre-test

- You can reset your RPS cloud password to rps@123
- Once you login to your RPS Lab machine, you will find the pre-test url in the desktop
- While registering for the pre-test, you may use your personal email not the BOFA id
- You don't have to share your Date of Birth, you don't have to turn on the camera
- Once you have completed the pre-test, kindly notify either via chat or you can tell me
- Once everyone completes the test, we will start the training