# Microk8s

# Microk8s

- MicroK8s is a powerful, lightweight, reliable production-ready Kubernetes distribution.
- Zero-ops highly-available multi-node Kubernetes.
- Enterprise-grade Kubernetes distribution that has a small disk and memory footprint.

MicroK8s

# Why Microk8s ?

- Single-package fully conformant lightweight Kubernetes that works on Linux, Windows and Mac.
- Micro8s is small, simple, secure, current and comprehensive.
- Dozens of add-ons: DNS, dashboard, storage, RBAC, ingress, MetalLB, registry, GPU, Istio, Linkerd, Knative, fluentd, Prometheus, Jaeger, kubeflow.
- Made for developers, and great for edge, IoT and appliances.

Visit MicroK8s.io for more information

# Install  Microk8s (Ubuntu)

- Install Microk8s

  ```
  sudo snap install microk8s --classic
  ```

- Join  Microk8s group

  ```
  sudo usermod -a -G microk8s "$USER"
  sudo chown -f -R "$USER" /.kube
  ```

- Logout of the vm

  ```
  exit
  ```

- ssh into the vm

  ```
  ssh -i “key.pem” ubuntu@.....
  ```

- Enable Microk8s addons

  ```
  microk8s.enable dns dashboard storage metrics-server
  ```

# Install  Microk8s (Ubuntu)

- Check microk8s status

  `microk8s status`

  `microk8s.kubectl get ns`

- Enable kubeflow

  `microk8s.enable kubeflow`

```
Congratulations, Kubeflow is now available.
The dashboard is available at http://10.64.140.43.xip.io/

    Username: admin
    Password: 8CNLX620FMBB47729DZT84VADZW61Q

To see these values again, run:

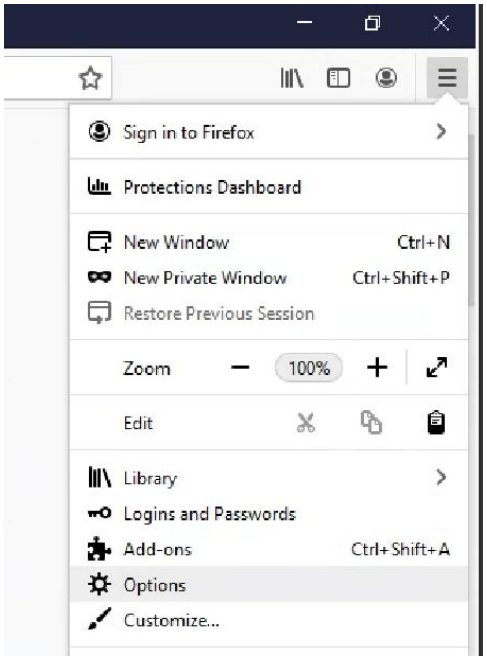
    microk8s juju config dex-auth static-username
    microk8s juju config dex-auth static-password
```

# Install Microk8s (Ubuntu)

- Exit the vm and configure socks proxy

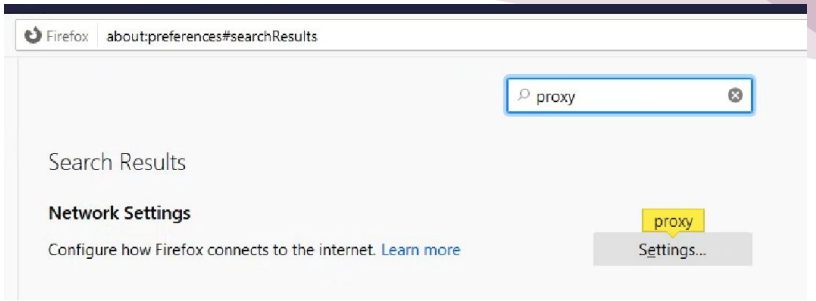
```
exit
ssh -i "key.pem" -D9999 ubuntu@<SERVER_IP_ADDRESS>
```

- Configure SOCKS proxy in browser
  - Select options at the top right corner of your browser

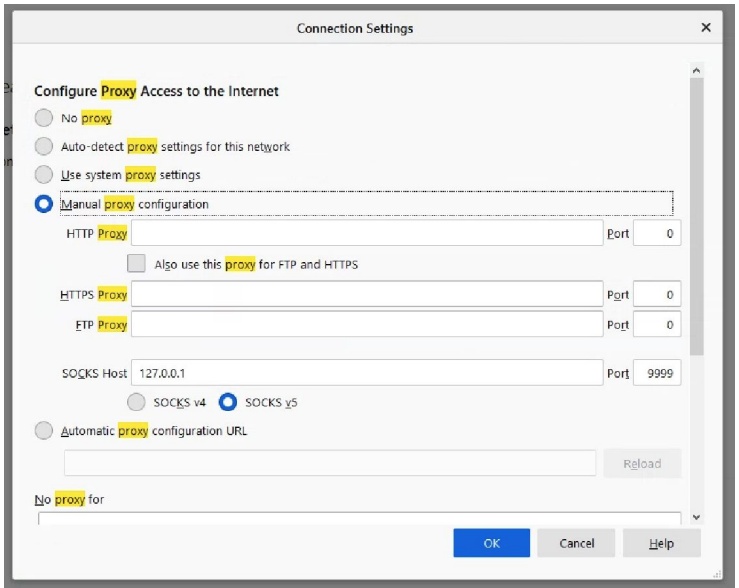


# Install Microk8s (Ubuntu)

- Type proxy in search box, click "Settings button




- In the "Connection Settings" window, select "Manual proxy configuration" and configure SOCKS Host "127.0.0.1" and Port "9999". When done, click "OK" button.



# Install Microk8s (Ubuntu)

- Now copy the Kubeflow GUI address from your terminal (e.g. http://10.64.140.43.xip.io) and paste it into Firefox URL bar.

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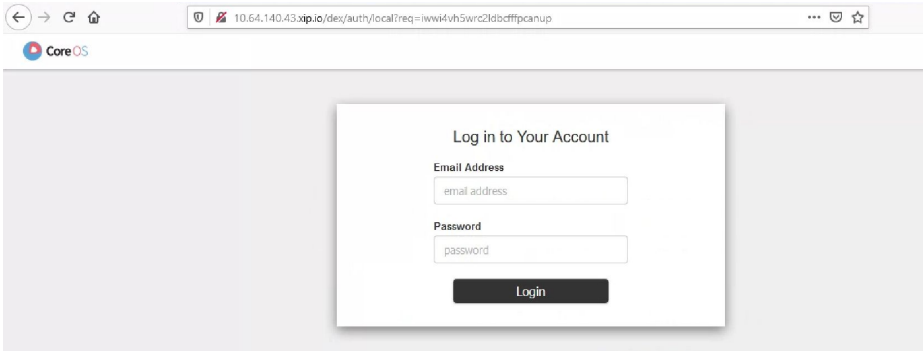

# Install Microk8s (Ubuntu)

- Fill in login details

```
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    Username: admin
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    microk8s juju config dex-auth static-username
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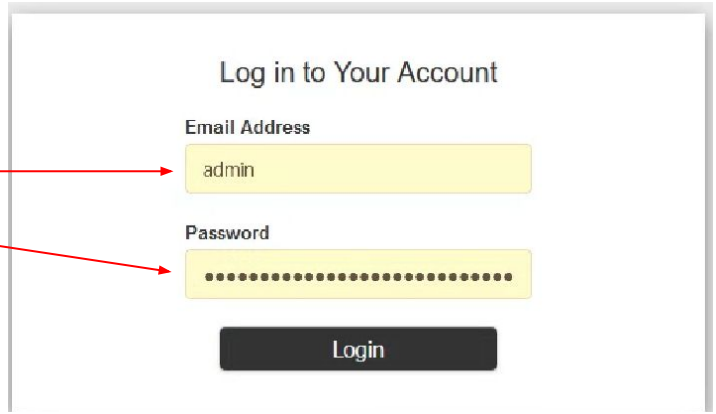

# Enabling Kubeflow on Microk8s

You should have access to the Kubeflow UI now.