**Open PowerShell as Administrator and execute:**  
  
 wsl --install

sudo apt update && sudo apt upgrade

sudo apt update && sudo apt install zip unzip -y

[sudo] password for <userName>:

**Install SDKMAN! by running:**  
  
 curl -s "https://get.sdkman.io" | bash

After installation, reload your shell:  
bash  
  
 source "$HOME/.sdkman/bin/sdkman-init.sh"

**Install Java 23:**

Use SDKMAN! to install the latest Java version:

sdk install java 23.0.2.fx-zulu

sudo apt update

sudo apt upgrade -y

sudo apt install apt-transport-https ca-certificates curl software-properties-common -y

curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -o /usr/share/keyrings/docker-archive-keyring.gpg

echo "deb [arch=amd64 signed-by=/usr/share/keyrings/docker-archive-keyring.gpg] https://download.docker.com/linux/ubuntu $(lsb\_release -cs) stable" | sudo tee /etc/apt/sources.list.d/docker.list > /dev/null

sudo apt update

sudo apt install docker-ce docker-ce-cli containerd.io -y

sudo service docker start

sudo docker --version

sudo usermod -aG docker <yourName>

newgrp docker

curl -Lo minikube <https://storage.googleapis.com/minikube/releases/latest/minikube-linux-amd64>

sudo chmod +x minikube

sudo mv minikube /usr/local/bin/

minikube start --driver=docker

😄 minikube v1.35.0 on Ubuntu 20.04 (amd64)

✨ Using the docker driver based on user configuration

📌 Using Docker driver with root privileges

👍 Starting "minikube" primary control-plane node in "minikube" cluster

🚜 Pulling base image v0.0.46 ...

💾 Downloading Kubernetes v1.32.0 preload ...

> preloaded-images-k8s-v18-v1...: 333.57 MiB / 333.57 MiB 100.00% 4.12 Mi

> gcr.io/k8s-minikube/kicbase...: 500.31 MiB / 500.31 MiB 100.00% 5.03 Mi

🔥 Creating docker container (CPUs=2, Memory=3900MB) ...

🐳 Preparing Kubernetes v1.32.0 on Docker 27.4.1 ...

▪ Generating certificates and keys ...

▪ Booting up control plane ...

▪ Configuring RBAC rules ...

🔗 Configuring bridge CNI (Container Networking Interface) ...

🔎 Verifying Kubernetes components...

▪ Using image gcr.io/k8s-minikube/storage-provisioner:v5

🌟 Enabled addons: storage-provisioner, default-storageclass

💡 kubectl not found. If you need it, try: 'minikube kubectl -- get pods -A'

🏄 Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default

**Install kubectl**

curl -LO "https://dl.k8s.io/release/$(curl -L -s <https://dl.k8s.io/release/stable.txt>)/bin/linux/amd64/kubectl"

sudo chmod +x kubectl

sudo mv kubectl /usr/local/bin/

kubectl version --client

kubectl get nodes

minikube dashboard

✅ **WSL2 Installed & Ubuntu Set Up**

✅ **Ubuntu Updated with Required Packages**

✅ **Docker Installed Inside WSL2**

✅ **Minikube Installed and Running**

✅ **kubectl Installed and Configured**

✅ **Windows kubectl Configured for IntelliJ**

**Create a shortcut to run the following script in powershell**

**"powershell -ExecutionPolicy Bypass -File C:\Scripts\wsl.ps1"**

**wsl bash -c "**

**sudo service docker start;**

**if ! minikube status | grep -q 'Running'; then**

**minikube start --driver=docker;**

**fi;**

**kubectl get nodes;**

**exec bash**

**"**

**Copy the kube config from wsl to windows mount and the three certs then change the paths**

**cp ~/.kube/config /mnt/c/Users/pfcit2/.kube/config**

**apiVersion: v1**

**clusters:**

**- cluster:**

**certificate-authority: ca.crt**

**extensions:**

**- extension:**

**last-update: Tue, 11 Mar 2025 14:45:36 GMT**

**provider: minikube.sigs.k8s.io**

**version: v1.35.0**

**name: cluster\_info**

**server: https://127.0.0.1:32771**

**name: minikube**

**contexts:**

**- context:**

**cluster: minikube**

**extensions:**

**- extension:**

**last-update: Tue, 11 Mar 2025 14:45:36 GMT**

**provider: minikube.sigs.k8s.io**

**version: v1.35.0**

**name: context\_info**

**namespace: default**

**user: minikube**

**name: minikube**

**current-context: minikube**

**kind: Config**

**preferences: {}**

**users:**

**- name: minikube**

**user:**

**client-certificate: client.crt**

**client-key: client.key**