### **🚀 Step-by-Step Guide to Deploying a Spring Boot App on Minikube using Kubernetes 🎯**

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### **Step 1: Create a New Directory**

This command creates a new directory named task4 in the current working directory.

**Code:**

mkdir task4

### **Step 2: Navigate to the Directory**

This command moves you into the task4 directory.

**Code:**

cd task4

### **Step 3: Create a YAML Configuration File**

This command opens the **sample.yaml** file in the Vim text editor.

If the file does not exist, Vim will create it.

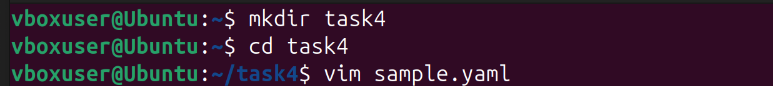
Inside Vim:

* Press **i** to enter insert mode.
* Write your Kubernetes YAML configuration (e.g., a deployment or service).
* Press **ESC**, type **:wq**, and press **Enter** to save and exit.

**Code:**

vim sample.yaml

**Screenshot:**



**Step 4: Apply the YAML Configuration Using kubectl**

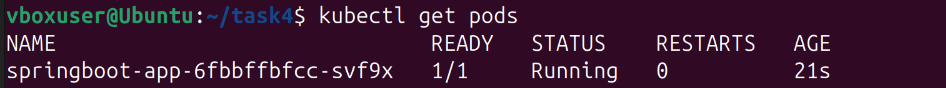
This command deploys resources defined in sample.yaml to the Kubernetes cluster.

Ensure that **Minikube** or another Kubernetes cluster is running before executing this.

**Code:**

kubectl apply -f sample.yaml

**Screenshot:**

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### **Step 5: Check Running Pods**

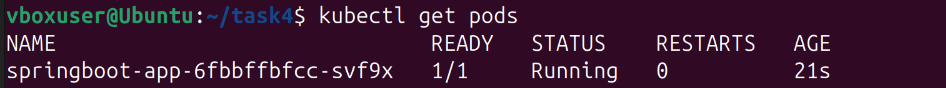
This command lists all running pods in the Kubernetes cluster.

It provides details such as pod name, status, restarts, and age.

**Code:**

kubectl get pods

**Screenshot:**

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**Step 6: Expose the Spring Boot Application via Minikube**

This command exposes the springboot-app service in Minikube.

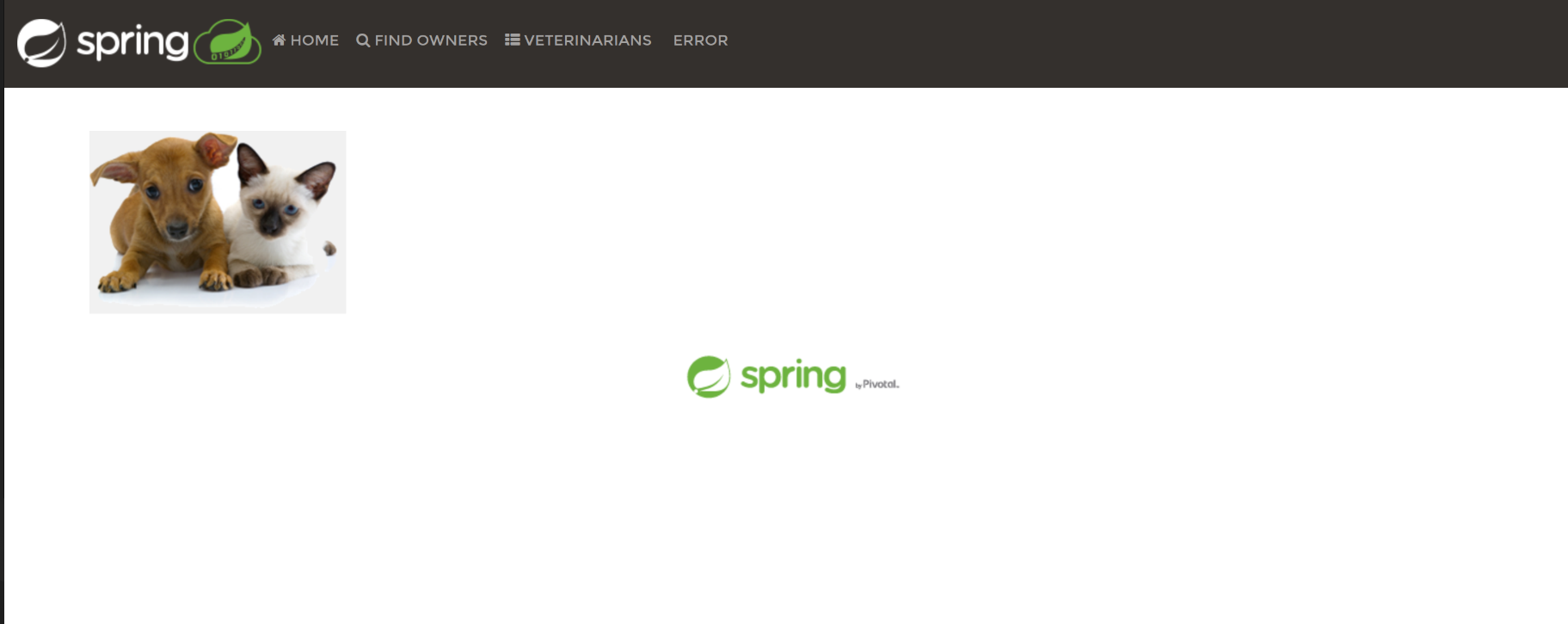
It opens the application in a web browser by forwarding traffic to a local machine-accessible URL.

**Code:**

minikube service springboot-app

**Screenshot:**

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### **Prerequisites:**

**1)Minikube installed and running**

**Code:**

minikube start

**2)kubectl installed and configured**

**Code:**

kubectl version --client

**3)A valid sample.yaml file containing Kubernetes resource definitions (e.g., Deployment, Service).**