**Solution: Deploy Your First Kubernetes Cluster**

The kubeconfig file and kubectl commands are the 2 main components that permits the interaction with a Kubernetes cluster.

Let's take a closer look at cluster configuration details.

* kubeconfig
  + K3s stores the kubeconfig file under /etc/rancher/k3s/k3s.yaml path
  + API server - https://127.0.0.1:6443
  + authentication mechanism - username (admin) and password
* kubectl commands
  + kubectl cluster-info to get the control plane and add-ons endpoints
  + Kubernetes master is running at https://127.0.0.1:6443
  + CoreDNS is running at https://127.0.0.1:6443/api/v1/namespaces/kube-system/services/kube-dns:dns/proxy
  + Metrics-server is running at https://127.0.0.1:6443/api/v1/namespaces/kube-system/services/https:metrics-server:/proxy
  + kubectl get nodes - to get all the nodes in the cluster
  + NAME STATUS ROLES AGE VERSION
  + localhost Ready master 74m v1.18.9+k3s1
  + kubectl get nodes -o wide - to get extra details about the nodes, including internal IP
  + NAME STATUS ROLES AGE VERSION INTERNAL-IP EXTERNAL-IP OS-IMAGE KERNEL-VERSION CONTAINER-RUNTIME
  + localhost Ready master 74m v1.18.9+k3s1 10.0.2.15 <none> openSUSE Leap 15.2 5.3.18-lp152.47-default containerd://1.3.3-k3s2
  + kubectl describe node node-name - to get all the configuration details about the node, including the allocated pod CIDR
  + kubectl describe node localhost | grep CIDR
  + PodCIDR: 10.42.0.0/24
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