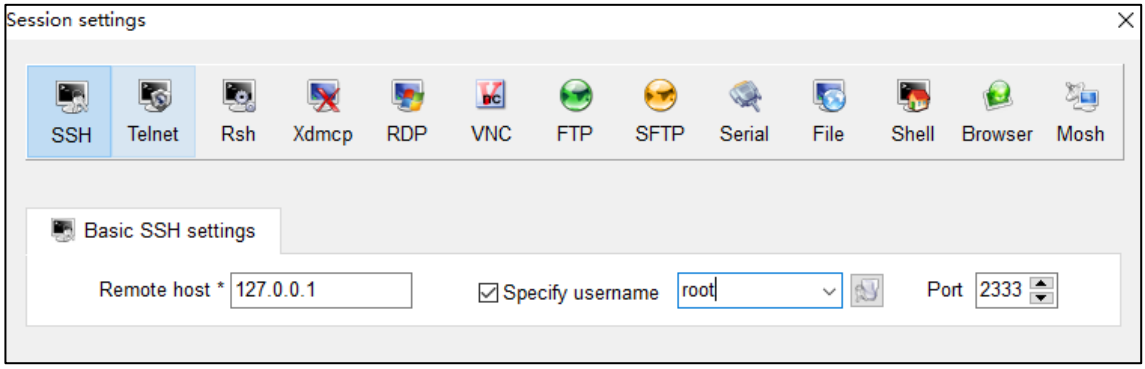
1.1 Kubernetes 架构介绍实验

步骤 1 登陆环境

在 SSH 工具中输入登陆环境信息，主机地址为 127.0.0.1，用户名为 root，密码 Huawei@123，端口号 2333



步骤 2 查看节点状态：

```
[root@k8s-master /]# kubectl get node
NAME         STATUS   ROLES    AGE   VERSION
k8s-master   Ready    master   9d    v1.14.3
k8s-node1    Ready    <none>   9d    v1.14.3
k8s-node2    Ready    <none>   9d    v1.14.3
```

步骤 3 查看 Docker 运行状态

登录 k8s-master 节点和 node 节点，使用如下命令查看 docker 状态：

```
[root@k8s-node1]# systemctl status docker
```

如 docker 运行状态正常，回显如下：

```
● docker.service - Docker Application Container Engine
   Loaded: loaded (/usr/lib/systemd/system/docker.service; enabled; vendor
preset: disabled)
   Active: active (running) since Sun 2019-04-28 18:00:36 CST; 2 weeks 3
days ago
```

步骤 4 在所有节点查看 kubelet 运行状态

使用如下命令：

```
[root@k8s-node1]# systemctl status kubelet
```

```
● kubelet.service - kubelet: The Kubernetes Node Agent
   Loaded: loaded (/usr/lib/systemd/system/kubelet.service; enabled; vendor
preset: disabled)
```

```
  Drop-In: /usr/lib/systemd/system/kubelet.service.d
           └─10-kubeadm.conf
   Active: active (running) since Sun 2019-04-28 17:15:03 CST; 2 weeks 3
days ago
```

步骤 5　在 Master 节点查看封装到 Pod 中的组件的状态。

```
[root@k8s-master]# kubectl get pods --field-selector spec.nodeName=k8s-master -
-namespace=kube-system
```

回显可以看到：

```
NAME                                 READY   STATUS    RESTARTS   AGE
coredns-fb8b8dccf-j4kn5              1/1     Running   3          18d
coredns-fb8b8dccf-mx6pw              1/1     Running   3          18d
etcd-k8s-master                      1/1     Running   2          18d
kube-apiserver-k8s-master            1/1     Running   3          18d
kube-controller-manager-k8s-master   1/1     Running   2          18d
kube-flannel-ds-amd64-lfs1h          1/1     Running   3          18d
kube-proxy-dt69s                     1/1     Running   2          18d
kube-scheduler-k8s-master            1/1     Running   2          18d
kubernetes-dashboard-5f798cc594      1/1     Running   3          18d
```

步骤 6　在 Node 节点查看封装到 Pod 中的系统组件：

```
[root@k8s-node1]# kubectl get pods --field-selector spec.nodeName=k8s-node2 --
namespace=kube-system
```

回显如下

```
NAME                          READY   STATUS    RESTARTS   AGE
kube-flannel-ds-amd64-7tn6g   1/1     Running   2          18d
kube-proxy-q8xmm              1/1     Running   2          18d
```

步骤 7　查看现有 namespace

```
[root@k8s-master]kubectl get namespace
```

或者简写命令

```
[root@k8s-master]kubectl get ns
```

或查看完整信息

```
[root@k8s-master]# kubectl get namespace -o wide
```

```
NAME              STATUS   AGE
default           Active   9d
kube-node-lease   Active   9d
kube-public       Active   9d
kube-system       Active   9d
```

步骤 8 创建 namespace

```
[root@k8s-master /]# kubectl create namespace new-namespace
namespace/new-namespace created
```

步骤 9 再次查看 namespace 清单

```
[root@k8s-master]kubectl get namespace
```

可以看到 namespace 中的可以看到已创建的 namespace

```
NAME              STATUS   AGE
default           Active   9d
kube-node-lease   Active   9d
kube-public       Active   9d
kube-system       Active   9d
new-namespace     Active   21m
```

步骤 10 删除刚刚创建的 namespace

```
[root@k8s-master]kubectl delete namespace new-namespace
```