

虚拟机安装Ubuntu --- docker教程

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虚拟机安装教程

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虚拟机安装教程

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VirtualBox

Download VirtualBox

Here you will find links to VirtualBox binaries and its source code.

VirtualBox binaries

By downloading, you agree to the terms and conditions of the respective license.

If you're looking for the latest VirtualBox 5.2 packages, see [VirtualBox 5.2 builds](#). Please also 5.2 will remain supported until July 2020.

VirtualBox 6.0.6 platform packages

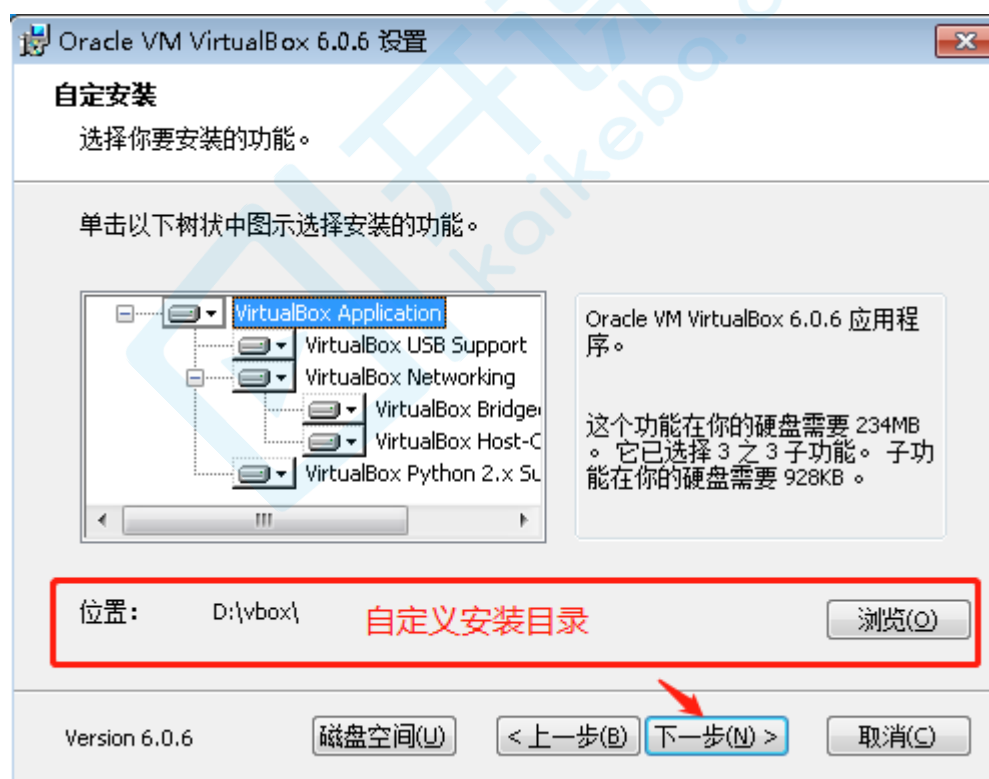
- [Windows hosts](#)
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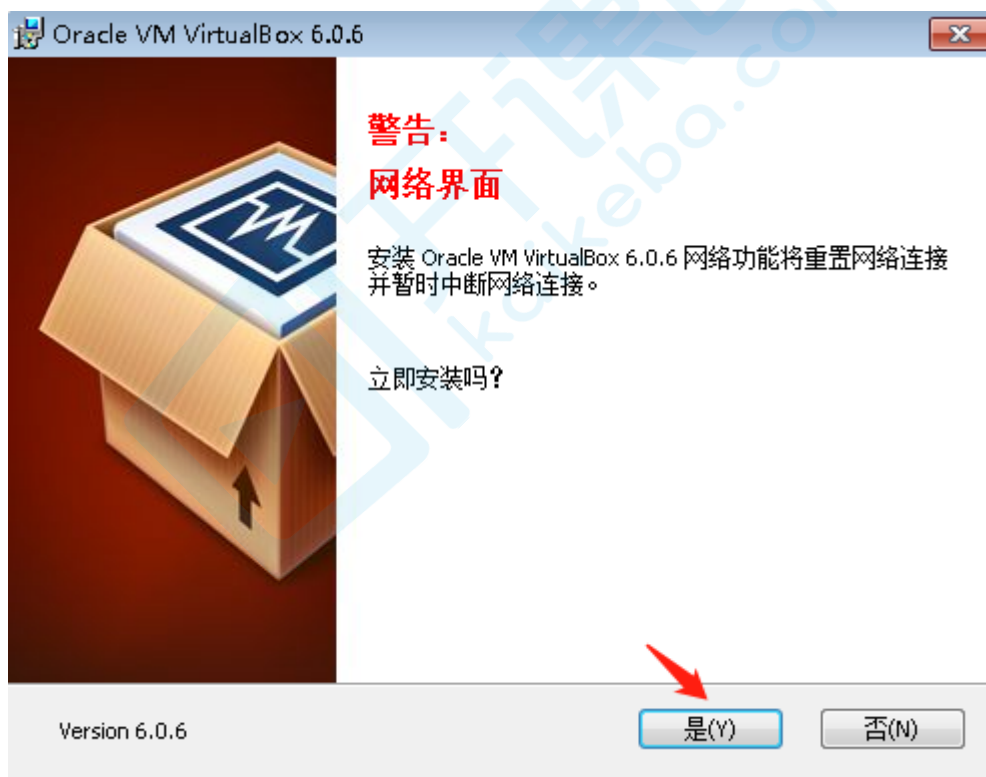
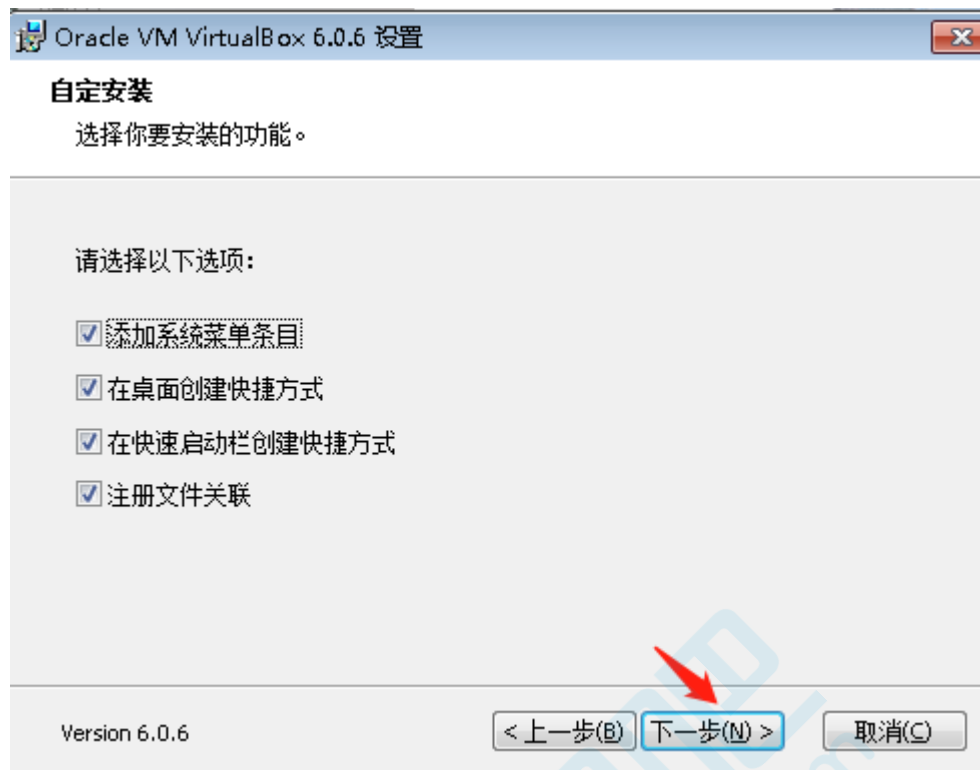
The binaries are released under the terms of the GPL version 2.

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安装

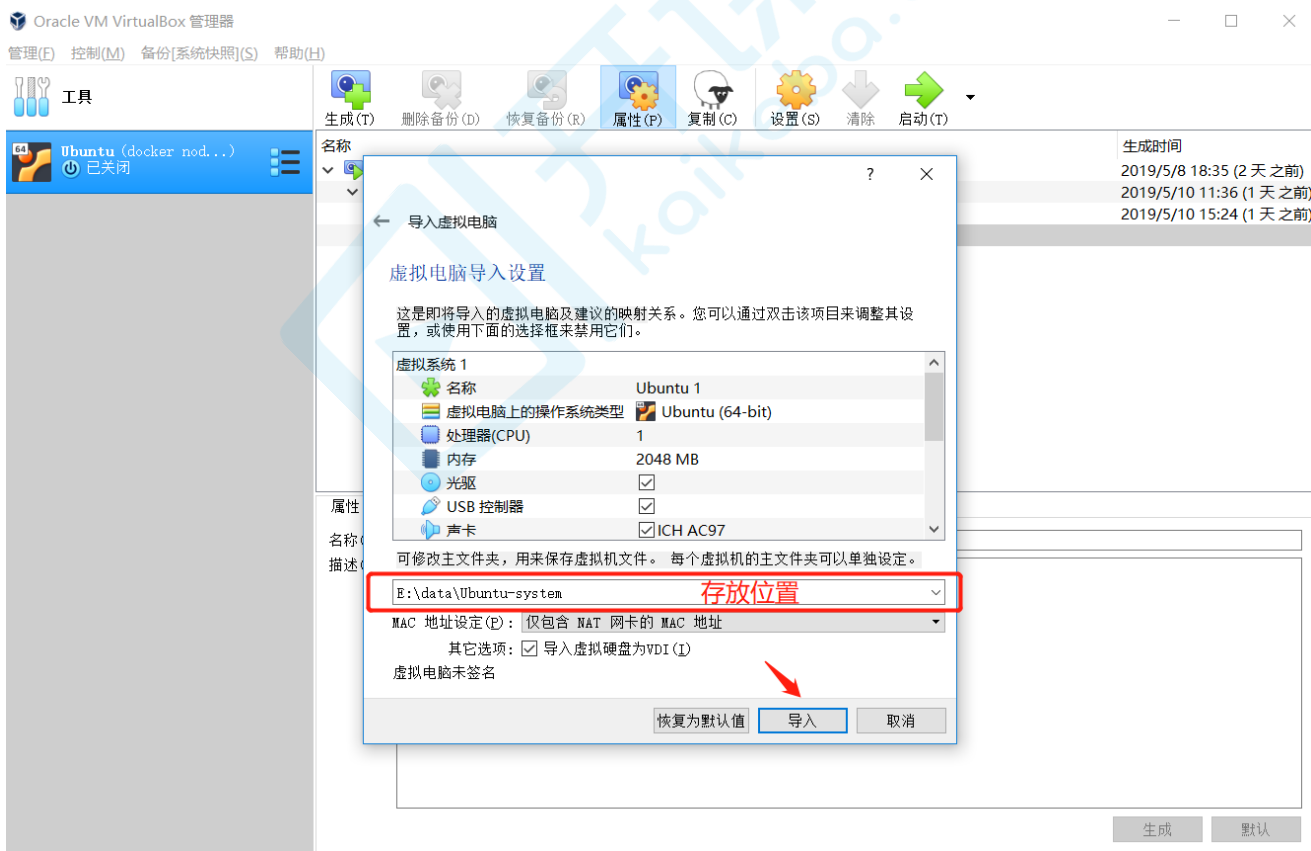
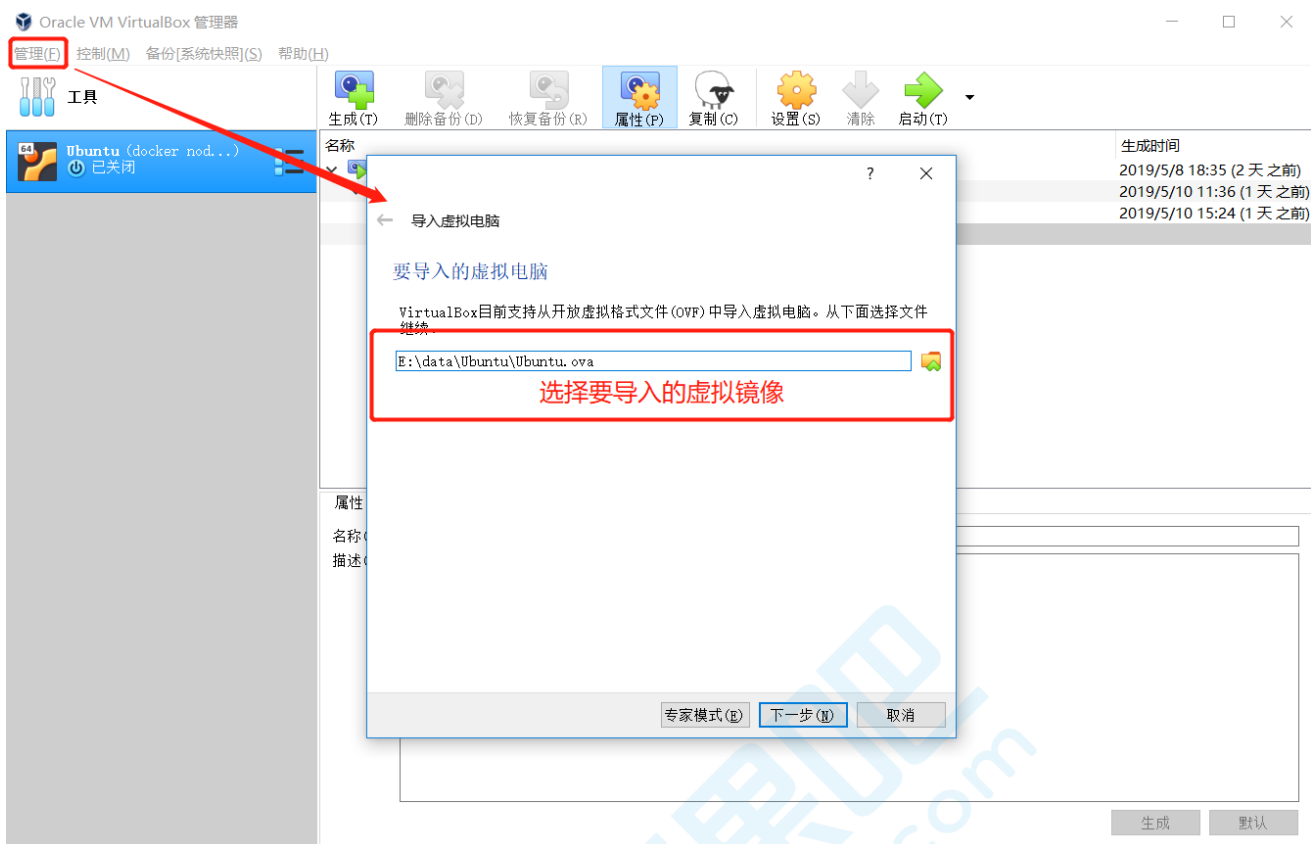
傻瓜式安装



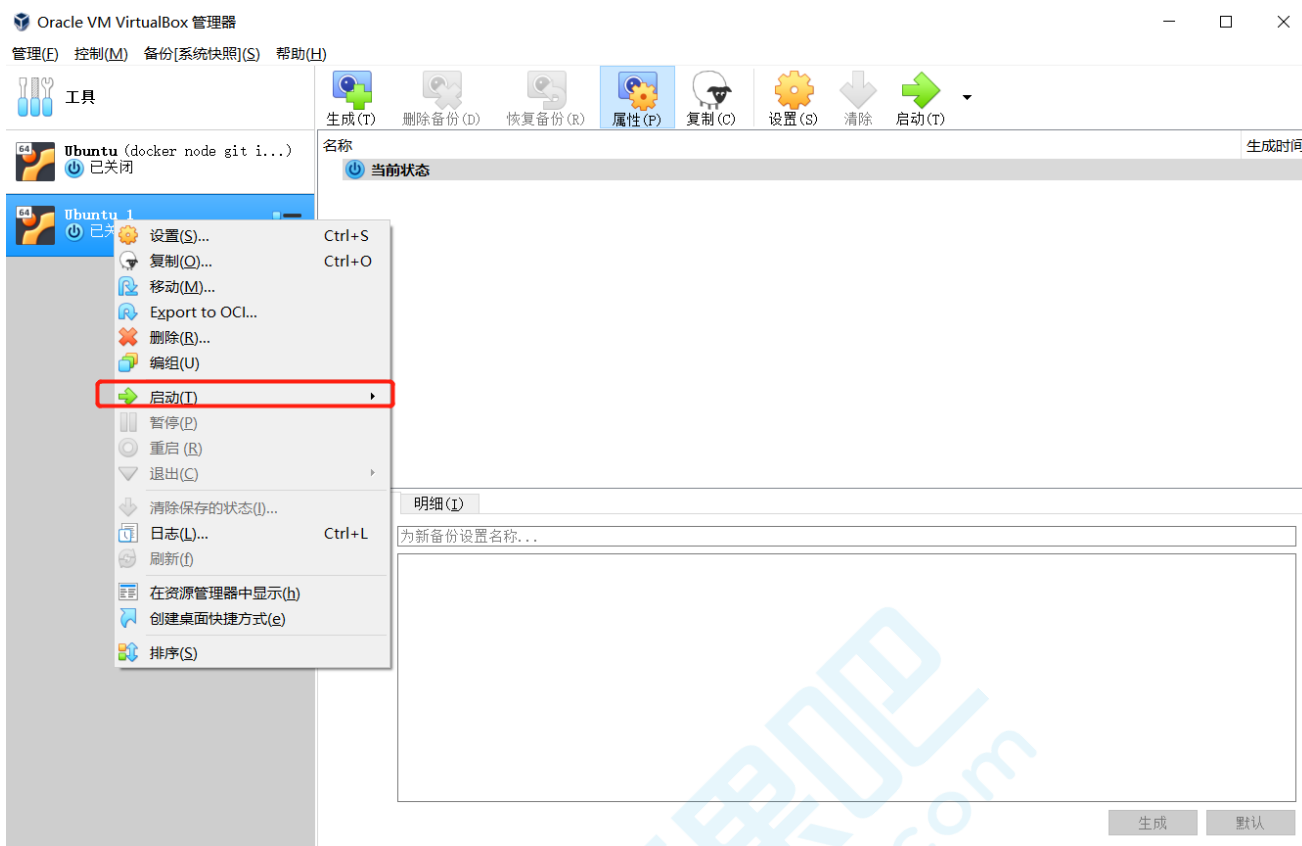




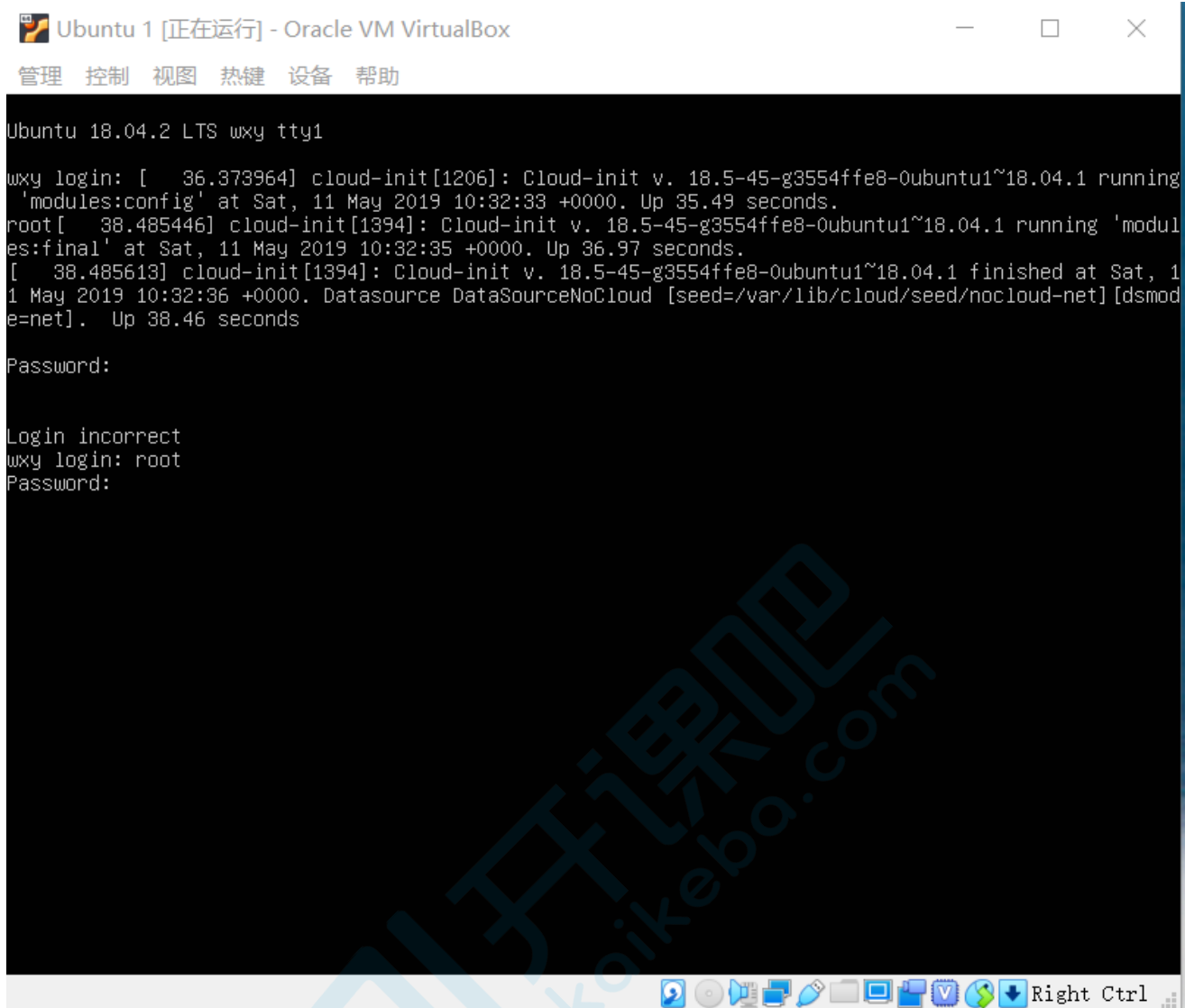
导入虚拟机



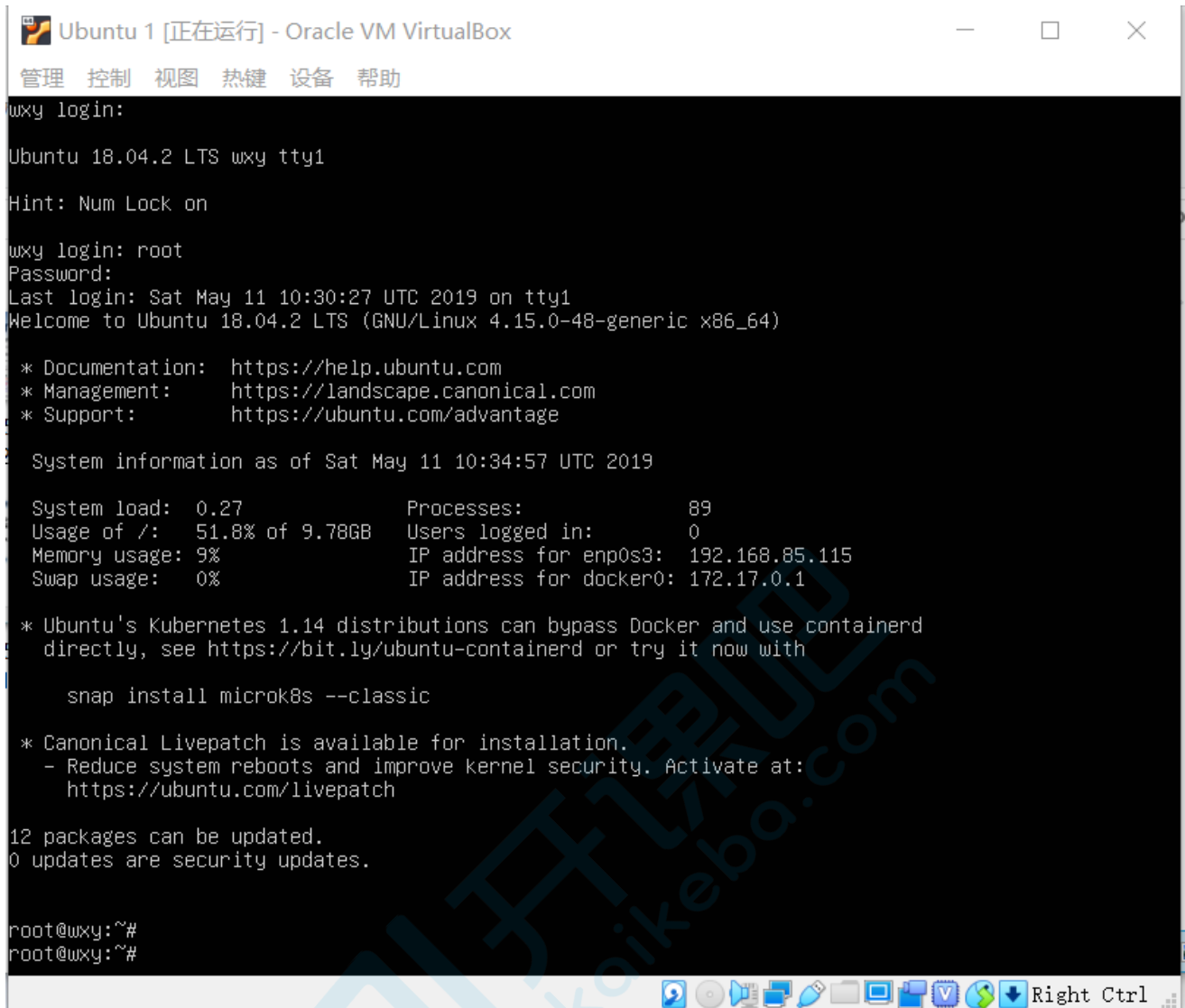
启动虚拟机



输入账户密码、登录 本镜像账户为 root 密码：111111（小伙伴想要修改的话可以自行在ubuntu系统中进行修改）



登录成功



```
Ubuntu 1 [正在运行] - Oracle VM VirtualBox
管理 控制 视图 热键 设备 帮助
wxy login:
Ubuntu 18.04.2 LTS wxy tty1
Hint: Num Lock on
wxy login: root
Password:
Last login: Sat May 11 10:30:27 UTC 2019 on tty1
Welcome to Ubuntu 18.04.2 LTS (GNU/Linux 4.15.0-48-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Sat May 11 10:34:57 UTC 2019

System load:  0.27           Processes:            89
Usage of /:   51.8% of 9.78GB Users logged in:        0
Memory usage: 9%            IP address for enp0s3: 192.168.85.115
Swap usage:   0%            IP address for docker0: 172.17.0.1

 * Ubuntu's Kubernetes 1.14 distributions can bypass Docker and use containerd
   directly, see https://bit.ly/ubuntu-containerd or try it now with

   snap install microk8s --classic

 * Canonical Livepatch is available for installation.
   - Reduce system reboots and improve kernel security. Activate at:
     https://ubuntu.com/livepatch

12 packages can be updated.
0 updates are security updates.

root@wxy:~#
root@wxy:~#
```

通过ssh登录

windows子系统ssh登录服务器(MAC直接使用终端登录)

利用 `ifconfig` 查看服务器ip地址


```
Ubuntu 1 [正在运行] - Oracle VM VirtualBox
管理 控制 视图 热键 设备 帮助

root@wxy:~# ifconfig
docker0: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500
    inet 172.17.0.1 netmask 255.255.0.0 broadcast 172.17.255.255
    ether 02:42:37:7c:0c:af txqueuelen 0 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.43.73 netmask 255.255.255.0 broadcast 192.168.43.255
    inet6 2409:8900:8700:6cdd:a00:27ff:fe53:cb9f prefixlen 64 scopeid 0x0<global>
    inet6 fe80::a00:27ff:fe53:cb9f prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:53:cb:9f txqueuelen 1000 (Ethernet)
    RX packets 437 bytes 473677 (473.6 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 282 bytes 21316 (21.3 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 102 bytes 7850 (7.8 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 102 bytes 7850 (7.8 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

ifconfig查看服务器IP地址

打开Windows子系统，连接虚拟机（没有的小伙伴自行下载）

```
ssh root@192.168.43.73
# root 为用户名
# ip地址
```

```
root@wxy: ~
root@LAPTOP-GAHBV025:~# ssh root@192.168.43.73 ssh 登录
root@192.168.43.73's password: 输入密码
Welcome to Ubuntu 18.04.2 LTS (GNU/Linux 4.15.0-48-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Sun May 12 16:25:47 UTC 2019

System load:  0.1               Processes:    90
Usage of /:   51.8% of 9.78GB   Users logged in: 1
Memory usage: 10%              IP address for enp0s3: 192.168.43.73
Swap usage:  0%                IP address for docker0: 172.17.0.1

 * Ubuntu's Kubernetes 1.14 distributions can bypass Docker and use containerd
   directly, see https://bit.ly/ubuntu-containerd or try it now with

   snap install microk8s --classic

 * Canonical Livepatch is available for installation.
   - Reduce system reboots and improve kernel security. Activate at:
     https://ubuntu.com/livepatch

12 packages can be updated.
0 updates are security updates.

Last login: Sun May 12 16:23:52 2019 from 192.168.43.143
root@wxy:~#
```

配置ssh免密登录

我们看到上述操作需要登录密码，比较繁琐，接下来我们设置ssh免密登录

服务器生成公钥

```
ssh-keygen -t rsa
```

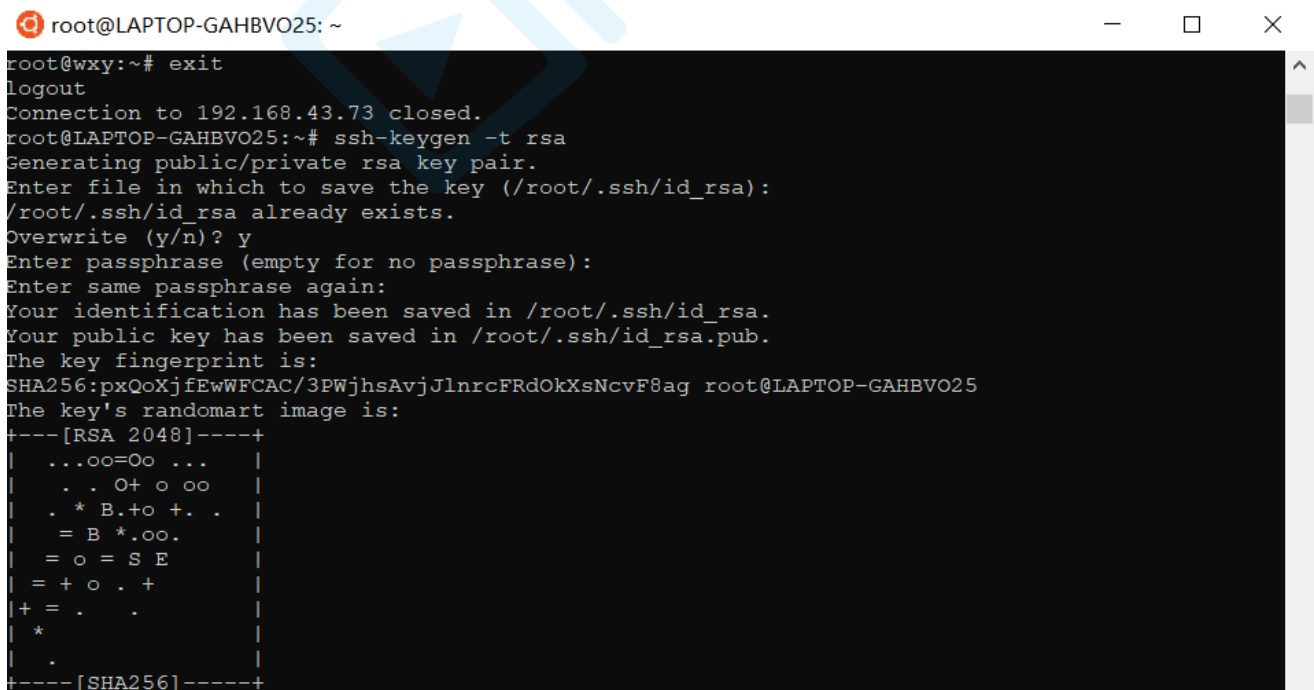


```
root@wxy:~# ssh-keygen -t rsa
Generating public/private rsa key pair.
Enter file in which to save the key (/root/.ssh/id_rsa):
/root/.ssh/id_rsa already exists.
Overwrite (y/n)? y
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /root/.ssh/id_rsa.
Your public key has been saved in /root/.ssh/id_rsa.pub.
The key fingerprint is:
SHA256:jwEqz+g9x78mAH0KskyvKQ0FKSe4JjX7vo7TcgU+xxs root@wxy
The key's randomart image is:
+---[RSA 2048]-----+
|..                    |
|*+                   |
|,*+ .               |
|+0= 0...            |
|=+0=. = S           |
|0. ** E +           |
| 0+00* 0. .         |
|.++0= = .           |
|. 0=++ +0.          |
+---[SHA256]-----+
```

windows子系统生成公钥

MAC本的如果之前在本机生成过公钥就不需要此步骤,因为重新生成会把之前的公钥给覆盖掉

exit退出刚才ssh登录的虚拟机用户, 同样的方法 `ssh-keygen -t rsa` 在windows子系统生成公钥



```
root@LAPTOP-GAHBVO25: ~
root@wxy:~# exit
logout
Connection to 192.168.43.73 closed.
root@LAPTOP-GAHBVO25:~# ssh-keygen -t rsa
Generating public/private rsa key pair.
Enter file in which to save the key (/root/.ssh/id_rsa):
/root/.ssh/id_rsa already exists.
Overwrite (y/n)? y
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /root/.ssh/id_rsa.
Your public key has been saved in /root/.ssh/id_rsa.pub.
The key fingerprint is:
SHA256:pxQoXjfeWwFCAC/3PWjhsAvjJlnrcFRdOkXsNcvF8ag root@LAPTOP-GAHBVO25
The key's randomart image is:
+---[RSA 2048]-----+
|...oo=Oo ...        |
| . . O+ o oo         |
| . * B.+o +. .       |
| = B *.oo.           |
| = o = S E           |
| = + o . +           |
|+ = . .              |
| *                   |
| .                   |
+---[SHA256]-----+
```

```
cd .ssh //进入ssh目录
ls //查看文件
cat id_rsa.pub //查看公钥
```

```
root@LAPTOP-GAHBVO25: ~/.ssh
root@LAPTOP-GAHBVO25:~# cd .ssh
root@LAPTOP-GAHBVO25:~/.ssh# ls
id_rsa id_rsa.pub known_hosts
root@LAPTOP-GAHBVO25:~/.ssh# cat id_rsa.pub
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQCA6AXjy6zbLKJNPxr5HqnIZhy7n49jADeLkhY4vBfqvmdfVZKEW4dVm5
29+4KrfmYG6ji2PT2tInMaCCoMokDRBRAJ5FJg0b6gLKs/OC5Fv8R+/58ApQxSF24nXrQxa0Fr3tAmZAa7M7tvplhVQgA
qtBDVZB39EGyr5W9Jtklk+/XzT6WCZAqklUw6gBniB7r80LUMEYRd5YaVoplsXOAWs47YaCwUWq9wDQlGBrHouUFyb9xd
ChEs3syrg+T6f57ThbZoiAoLMjZe8ldavVBrlz21Dzfe95HlAXBnUcxZT/DdlYLMz7BkfBnX5FTNJ8T41B/LX9rvrDq3e
jcahqQFj root@LAPTOP-GAHBVO25
root@LAPTOP-GAHBVO25:~/.ssh#
root@LAPTOP-GAHBVO25:~/.ssh#
```

将公钥拷贝到服务器上

```
root@LAPTOP-GAHBVO25: ~/.ssh
root@LAPTOP-GAHBVO25:~/.ssh# scp id_rsa.pub root@192.168.43.73:/root
root@192.168.43.73's password:
id_rsa.pub
root@LAPTOP-GAHBVO25:~/.ssh#
```

将公钥拷贝到服务器
输入密码

将公钥加入信任列表

```
ls //服务器根目录可以看到拷贝过来id_rsa.pub文件
cat id_rsa.pub >> ~/.ssh/authorized_keys //将公钥加入信任列表
```

```
Ubuntu 1 [正在运行] - Oracle VM VirtualBox
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root@wxy:~# ls
id_rsa.pub
root@wxy:~# cat id_rsa.pub >> ~/.ssh/authorized_keys
root@wxy:~#
root@wxy:~#
root@wxy:~#
```

将公钥加入信任列表

ssh免密登录完成

```
root@wxy: ~
root@LAPTOP-GAHBVO25:~# ssh root@192.168.43.73
Welcome to Ubuntu 18.04.2 LTS (GNU/Linux 4.15.0-48-generic x86_64)

* Documentation:  https://help.ubuntu.com
* Management:    https://landscape.canonical.com
* Support:       https://ubuntu.com/advantage

System information as of Sun May 12 17:11:22 UTC 2019

System load:  0.0               Processes:           90
Usage of /:   51.8% of 9.78GB   Users logged in:    1
Memory usage: 10%              IP address for enp0s3: 192.168.43.73
Swap usage:   0%               IP address for docker0: 172.17.0.1

* Ubuntu's Kubernetes 1.14 distributions can bypass Docker and use containerd
  directly, see https://bit.ly/ubuntu-containerd or try it now with

  snap install microk8s --classic

* Canonical Livepatch is available for installation.
  - Reduce system reboots and improve kernel security. Activate at:
    https://ubuntu.com/livepatch

12 packages can be updated.
0 updates are security updates.

Last login: Sun May 12 17:11:10 2019 from 192.168.43.143
root@wxy:~#
```

本虚拟机镜像当中已安装node,git,docker小伙伴可自行使用

```
docker -v //查看docker版本号
```

```
root@wxy: ~
root@wxy:~# docker -v
Docker version 18.09.6, build 481bc77
root@wxy:~#
```

下边就可以尽情的使用docker了

需要注意的是windows中因为没有linux,所以才安装子系统进行操作

MAC中直接使用自带终端代替windows子系统就行,因为默认为一台linux服务器