LESSON 2



YAML

Ansible Lab Setup

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ANSIBLE & DEVOPS

LESSON 2

Installing Ansible and Building a Lab

Control and managed nodes, installing with pip or dnf, SSH keys, ansible.cfg and the first

The Lab Design

Host	IP	Role
control	192.168.56.10	Ansible control node
web1	192.168.56.11	Rocky Linux, nginx
web2	192.168.56.12	Ubuntu, nginx
db1	192.168.56.13	Rocky Linux, PostgreSQL

- A lab needs one control node and a few managed nodes. Use virtual machines with VirtualBox …
- Our lab: control, two web servers and one database server, running Rocky Linux and Ubuntu.

01

Installing Ansible

terminal

```
$ python3 -m pip install --user ansible
$ sudo dnf install ansible-core        # RHEL, Rocky
$ sudo apt install ansible             # Ubuntu
$ ansible --version
ansible [core 2.17.5]
  python version = 3.12.3
```

- The control node must be Linux or macOS; on Windows, use WSL. Install with pip, or with the …
- ansible-core is the engine; the ansible package adds the community collections of modules.

02

SSH Keys

terminal

```
$ ssh-keygen -t ed25519 -C "ansible@control"
$ for h in web1 web2 db1; do ssh-copy-id ansible@$h; done
$ ssh ansible@web1 hostname
web1
```

- Ansible logs in with SSH, so set up key-based login. Create a key on the control node and …
- Use a dedicated user, such as ansible, with sudo rights on the managed nodes.

03

ansible.cfg

ansible.cfg

```
[defaults]
inventory         = ./inventory.ini
remote_user       = ansible
host_key_checking = True
forks             = 20

[privilege_escalation]
become        = True
become_method = sudo
```

- An ansible.cfg in your project folder sets defaults: where the inventory is, which user to …
- Ansible reads the file in the current folder first, so each project can have its own settings.

04

The First Command

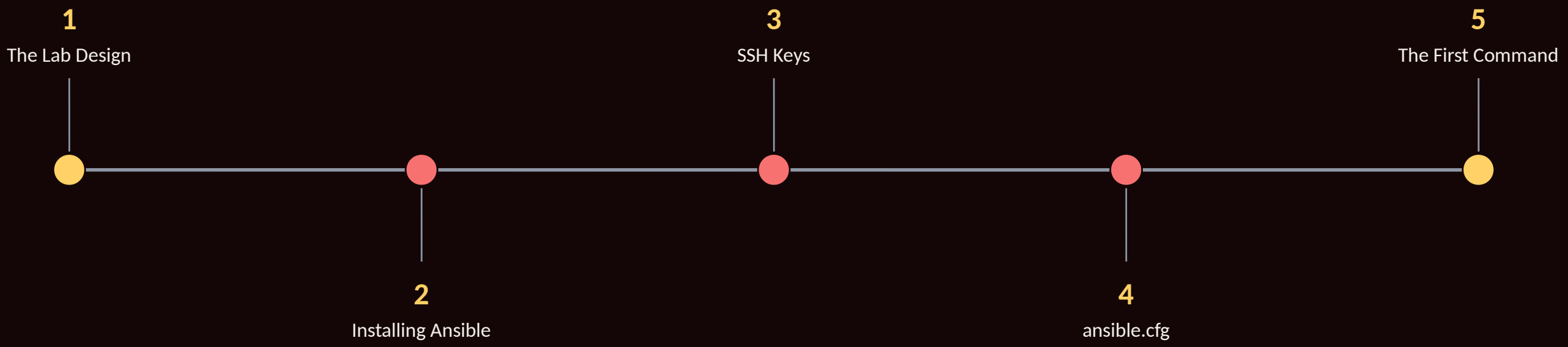
terminal

```
$ ansible all -m ping
web1 | SUCCESS => { "ping": "pong" }
web2 | SUCCESS => { "ping": "pong" }
db1  | SUCCESS => { "ping": "pong" }
```

- The ping module tests that Ansible can log in and run Python on each host. It is not an …
- Green pong means success; red means check SSH, the user or Python on that host.

05

Lesson Map


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Sources and Further Reading

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terminal

```
$ ssh-keygen -t ed25519 -C "ansible@control"
$ for h in web1 web2 db1; do ssh-copy-id ansible@$h; done
$ ssh ansible@web1 hostname
web1
```

Thank you for watching

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