LESSON 6

site.yml

```yaml
vars:
  app_name: school
path: "/opt/{{ app_name }}"
```

YAML

Variables & Facts

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ANSIBLE & DEVOPS

LESSON 6

Variables, Facts and register

Defining variables, Jinja2 expressions, facts with setup, register, debug and precedenc

Defining Variables

app.yml

```
- hosts: web
  vars:
    app_name: school
    app_port: 8080
  tasks:
    - name: Create app directory
      ansible.builtin.file:
        path: "/opt/{{ app_name }}"
        state: directory

# ansible-playbook app.yml -e app_port=9090
```

- Variables can live in a play's vars section, in vars files, in group_vars and host_vars, or ...
- Use them with double curly braces. When a value starts with a variable, quote the whole value.

01

Facts

terminal

```
$ ansible web1 -m setup -a "filter=ansible_distribution*"
"ansible_distribution": "Rocky",
"ansible_distribution_major_version": "9",
$ ansible web1 -m setup -a "filter=ansible_default_ipv4"
"address": "192.168.56.11"
```

- At the start of each play, Ansible gathers facts: operating system, IP addresses, memory, ...
- Use them to adapt, for example choosing the package name for Red Hat or Debian.

02

register and debug

check.yml

```yaml
- name: Check disk space
  ansible.builtin.command: df -h /
  register: disk
  changed_when: false

- name: Show result
  ansible.builtin.debug:
    msg: "{{ inventory_hostname }}: {{ disk.stdout_lines[1] }}"
```

- register saves a task's result into a variable: its output, return code and whether it …
- Together they let one task make decisions based on another.

03

Filters

filters.yml

```
- ansible.builtin.debug:
    msg:
      - "{{ app_env | default('production') }}"
      - "{{ app_name | upper }}"
      - "{{ groups['web'] | join(', ') }}"
      - "{{ ansible_memtotal_mb // 1024 }} GB RAM"
```

- Jinja2 filters transform values with a pipe: default gives a fallback, upper and lower ...
- The default filter prevents errors when a variable is not defined.

04

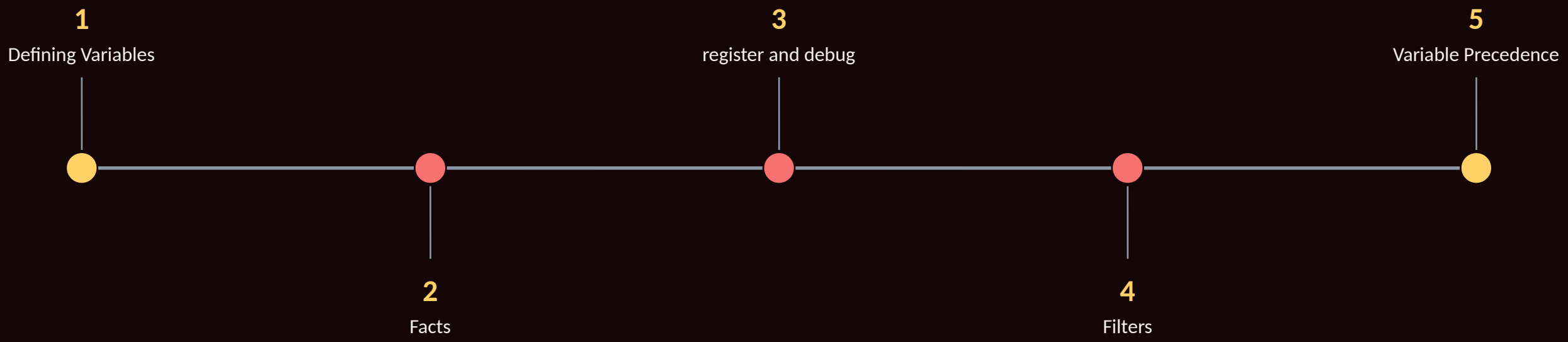
Variable Precedence



- role defaults — weakest
- group_vars — all → groups
- host_vars · play vars — more specific

05

Lesson Map


1
Defining Variables
2
Facts
3
register and debug
4
Filters
5
Variable Precedence

Sources and Further Reading

app.yml

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check.yml

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Thank you for watching

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