LESSON 7

site.yml

```
notify: Restart nginx
handlers:
  - name: Restart nginx
```

YAML

when, loop & handlers

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ANSIBLE & DEVOPS

LESSON 7

Conditionals, Loops and Handlers

when, loop, loop_control, handlers and notify, blocks with rescue, tags

Conditionals with when

os.yml

```yaml
- name: Install Apache on Red Hat family
  ansible.builtin.dnf:
    name: httpd
  when: ansible_facts['os_family'] == 'RedHat'

- name: Install Apache on Debian family
  ansible.builtin.apt:
    name: apache2
    update_cache: true
  when: ansible_facts['os_family'] == 'Debian'
```

- when runs a task only if a condition is true. Write the expression without curly braces. ...
- The classic use: choose tasks by operating system family.

01

Loops

users.yml

```yaml
- name: Create team accounts
  ansible.builtin.user:
    name: "{{ item.name }}"
    groups: "{{ item.groups }}"
  loop:
    - { name: mariam, groups: wheel }
    - { name: ahmad,  groups: developers }
    - { name: zahra,  groups: developers }
  loop_control:
    label: "{{ item.name }}"
```

- loop repeats a task for every item in a list, and item holds the current value. Loop over …
- loop_control with label keeps the output short and readable.

02

Handlers

nginx.yml

```
tasks:
  - name: Deploy nginx config
    ansible.builtin.template:
      src: nginx.conf.j2
      dest: /etc/nginx/nginx.conf
      validate: nginx -t -c %s
    notify: Restart nginx

handlers:
  - name: Restart nginx
    ansible.builtin.service:
      name: nginx
      state: restarted
```

- A handler is a task that runs only when notified, and only once, at the end of the play. ...
- If the configuration did not change, there is no restart, so the service stays undisturbed.

03

Blocks, rescue and always

deploy.yml

```yaml
- block:
    - name: Deploy new release
      ansible.builtin.unarchive:
        src: app-2.0.tar.gz
        dest: /opt/app
  rescue:
    - name: Restore previous release
      ansible.builtin.command: /opt/app/bin/rollback
  always:
    - name: Notify the team
      ansible.builtin.debug:
        msg: "Deploy finished on {{ inventory_hostname }}"
```

- block groups tasks so they share settings like become or when. rescue runs if any task in …
- Use it to roll back a failed deployment cleanly.

04

Tags

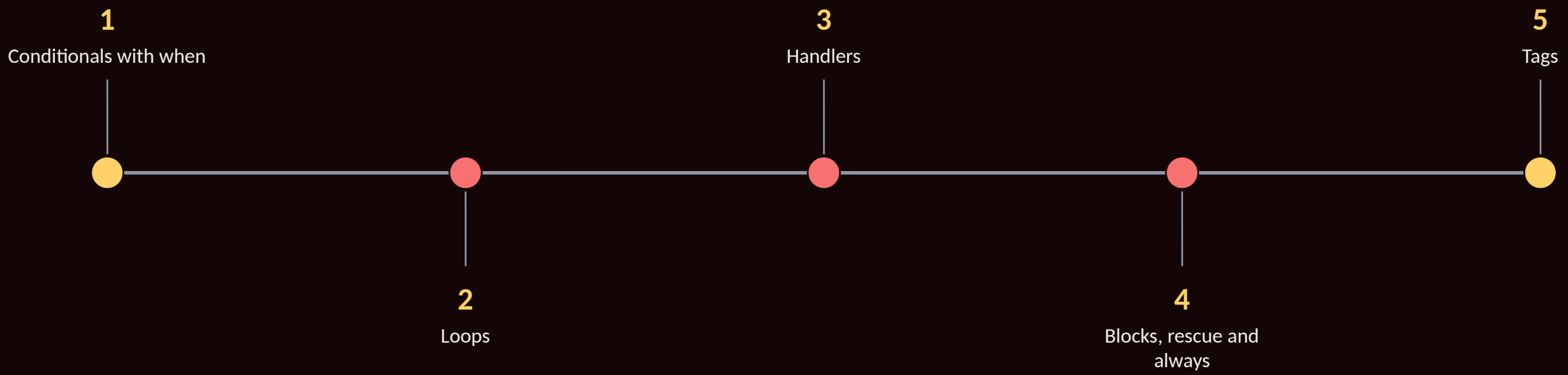
terminal

```
$ ansible-playbook site.yml --list-tags
      TASK TAGS: [config, packages, users]
$ ansible-playbook site.yml --tags config
$ ansible-playbook site.yml --skip-tags packages
```

- Tags label tasks so you can run only part of a playbook. dash dash tags runs the tagged …
- Tag tasks by purpose, such as packages, config and users.

05

Lesson Map


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Conditionals with when
2
Loops
3
Handlers
4
Blocks, rescue and always
5
Tags

Sources and Further Reading

os.yml

```yaml
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  ansible.builtin.dnf:
    name: httpd
  when: ansible_facts['os_family'] == 'RedHat'

- name: Install Apache on Debian family
  ansible.builtin.apt:
    name: apache2
    update_cache: true
  when: ansible_facts['os_family'] == 'Debian'
```

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nginx.yml

```yaml
tasks:
  - name: Deploy nginx config
    ansible.builtin.template:
      src: nginx.conf.j2
      dest: /etc/nginx/nginx.conf
      validate: nginx -t -c %s
    notify: Restart nginx

handlers:
  - name: Restart nginx
    ansible.builtin.service:
      name: nginx
      state: restarted
```

Thank you for watching

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