PLAYBOOK BASICS RECAP

TERMINOLOGY

```
Playbook
  Play (Group A)
    Role
    Role


  Play (Group B)
    Role
    Task

```
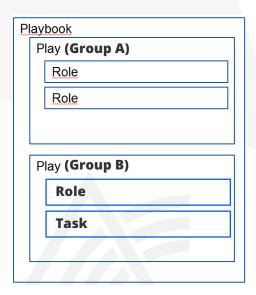
- **Inventory** - Defines the known hosts

- **Module** - Ansible Python library for one aspect

- **Task** - Parameterized call of a module

- **Role** - Modularization of related tasks

- **Play** - Tasks/roles for a host/group

- **Playbook** - YAML file with plays

A PLAYBOOK WITH ONE PLAY AND TWO TASKS

```yaml
---
- Name: Install Webserver
  hosts: all
  tasks:
    - name: Install Nginx
      ansible.builtin.apt:
        name: nginx

    - name: Start service Nginx
      ansible.builtin.service:
        name: nginx
        state: started
        enabled: true
```

A PLAYBOOK WITH TWO PLAYS AND TWO TASKS EACH

```yaml
---
- name: Install DB
  hosts: db
  tasks:
    - name: Install MySQL
      ansible.builtin.apt: name=mysql-server
    - name: Start Service MySQL
      ansible.builtin.service: name=mysql-server

- name: Install Webserver
  hosts: webservers
  tasks:
    - name: Install Nginx
      ansible.builtin.apt: name=nginx
    - name: Install Nginx
      ansible.builtin.service: name=nginx
```

YAML NOTES AND PLAYBOOK BEST PRACTICES

- File always start with ---

- Correct indentation is important!

- File extension .yml or .yaml

- Comments begin with #

- Quotation marks optional for parameter values (a must for variable references)

```yaml
---
- name: Install
  hosts: webserver # comment
  tasks:
    - name: Install Nginx
      ansible.builtin.apt:
        name: nginx

    - name: Install Something
      ansible.builtin.apt:
        name: "{{something}}"
```

- Best practice:
  - Specification of the parameters in dictionary-style (see example)
  - name for each task

EXECUTION OF PLAYBOOKS

■ Playbooks are executed with `ansible-playbook`

```
> ansible-playbook -b site.yml

PLAY [all] ***************************************************************

GATHERING FACTS ***********************************************************
ok: [192.168.20.10]

TASK: [Install Nginx] *****************************************************
changed: [192.168.20.10]

TASK: [Start service Nginx] ***********************************************
changed: [192.168.20.10]

PLAY RECAP ****************************************************************
192.168.20.10              : ok=3    changed=2    unreachable=0    failed=0
```

The execution sequence of the tasks corresponds to their declaration

EXECUTION RIGHTS OF ANSIBLE

- The ssh-user used by Ansible requires sudo rights

- Tasks are executed privileged with `-b` (command line) or `become:yes` (playbook)

```yaml
---
- name: Install Webserver
  hosts: all
  become: true # applies to all tasks
  tasks:
    - name: Install Nginx
      become: true # only this task
      ansible.builtin.apt:
        name: nginx

    - name: Start service Nginx
      ansible.builtin.service:
        name: nginx
        state: started
        enabled: true
```