WRITE ANSIBLE, GET CONTAINERS

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THIS TALK IS PRESENTED BY...

- This guy
- ~~Ops~~ Engineer
- * project contributor
- Redhatter
- Container fanboy

ANSIBLE

- Agentless automation system.
- Config-management, application deployment, ...
- Simplicity.
- Easy to write.
- Great documentation.

ANSIBLE II

- Modules.
- Tasks.
- Plays.
- Playbooks.
- Roles.
- Variables.

CONTAINERS

- Isolated processes which...
- Oh, wait.
- You
- Already
- Know
- This
- Right?

ANSIBLE CONTAINER

- Manages lifecycle of an application.
    - From development to deployment in cloud.
- Leverages Ansible roles from Ansible Galaxy.
- Uses containers.
- Container recipe is the Ansible language (not Dockerfile).

GLOSSARY (FILESYSTEM STRUCTURE)

```
ansible
├── container.yml
├── main.retry
├── main.yml
└── requirements.txt
```

GLOSSARY (MAIN.YML)

```yaml
- hosts: django
  roles:
  - django-gunicorn

- hosts: nginx
  roles:
  - role: ansible.nginx-container
    ASSET_PATHS:
    - /tmp/static
    PROXY: yes
    PROXY_PASS: http://django:8080
    PROXY_LOCATION: "~* /(admin|api)"
```

GLOSSARY (CONTAINER.YML)

```
version: '2'
defaults:
  POSTGRES_USER: django
  POSTGRES_PASSWORD: sesame
  POSTGRES_DB: django
  DJANGO_USER: django
  DJANGO_PORT: 8080
services:
```

GLOSSARY (CONTAINER.YML) II

```yaml
services:
  django:
    image: centos:7
    environment:
      DATABASE_URL: pgsql://{{ POSTGRES_USER }}:{{ ...
    expose:
    - '{{ DJANGO_PORT }}'
    links:
    - postgresql
    user: '{{ DJANGO_USER }}'
    command: ['/usr/bin/dumb-init', '/bin/gunicorn...
    dev_overrides:
      command: [/usr/bin/dumb-init, '/bin/python', manage...
        '0.0.0.0:{{ DJANGO_PORT }}']
      volumes:
      - $PWD:{{ DJANGO_ROOT }}
      depends_on:
      - postgresql
```

GLOSSARY (CONTAINER.YML) III

```
nginx:
  image: centos:7
  ports:
  - {{ DJANGO_PORT }}:8000
  user: nginx
  links:
  - django
  command: ['/usr/bin/dumb-init', 'nginx', '-c', '/etc/ng...
  dev_overrides:
    ports: []
    command: /bin/false
```

DEMO

- [github] ansible/ansible-container-demo
- [youtube] Init
- [youtube] Build
- [youtube] Run
- [youtube] Shipit
- [youtube] Deploy

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FUTURE STEPS

- Big rewrite is coming:
  - Conductor container.
  - Injecting runtime environment (virtualenv) into provisioned container image.
  - `main.yml` is gone.
  - `container.yml` now has only base image and list of Ansible roles.
  - Dockerfile → "ansible-container project" convertor.

QUESTIONS ARE WELCOME!

TomasTomecek/ansible-container-talk
ansible/ansible-container-demo
ansible/ansible-container
@TomasTomec