

DevOps Retest Cheatsheet - Jenkins, Linux, Python, Ansible, Kubernetes

Jenkins

- Freestyle vs Pipeline Jobs: Use Pipeline for automation (Jenkinsfile)

- Basic Jenkinsfile:

```
pipeline {  
    agent any  
  
    stages {  
        stage('Build') { steps { echo 'Building...' } }  
        stage('Test') { steps { echo 'Testing...' } }  
        stage('Deploy') { steps { echo 'Deploying...' } }  
    }  
}
```

- Webhook: GitHub > Settings > Webhook > Point to Jenkins endpoint

- Plugins: GitHub Integration, Docker, Kubernetes, Pipeline

Linux

- File Permissions: `chmod 755 file`, `chown user:group file`

- Process Management: `ps aux`, `top`, `kill -9 PID`, `nice -n 10 cmd`

- Network: `ifconfig`, `netstat -tuln`, `curl`, `ping`

- Shell Scripting:

```
for i in {1..5}; do echo $i; done
```

```
if [ $x -eq 1 ]; then echo yes; fi
```

- File Ops: `grep "text" file`, `awk '{print $1}'`, `sed 's/old/new/g'`

Python

- Data Types: `str`, `int`, `list`, `dict`

- Loops: `for x in list: print(x)`

- File Handling:

```
with open('file.txt') as f:
```

```
    data = f.read()
```

- Exception:

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```
try: x = 1/0
```

```
except ZeroDivisionError: print("Error")
```

- List Comp: [x for x in range(5) if x%2==0]

Ansible

- Inventory File: [webservers]

server1 ansible_host=IP

- Basic Playbook:

- hosts: all

tasks:

- name: Install package

apt: name=apache2 state=present

- Roles: ansible-galaxy init <role_name>

- ansible-vault create secret.yml

- Templates: config.j2 with {{ variable }}

Kubernetes

- Commands: kubectl get pods, kubectl apply -f file.yaml

- Pod YAML:

apiVersion: v1

kind: Pod

metadata: {name: mypod}

spec:

containers:

- name: app

image: nginx

- Deployment + Service: Use kind: Deployment and kind: Service

- Scaling: kubectl scale deployment app --replicas=3

- RBAC: Role + RoleBinding + ServiceAccount