

DevOps Practicals (Sets 4–6) – Beginner Answers

SET 4

Q1. Ansible Playbook to install & start Nginx:

1■■■ Create file: nginx.yml

2■■■ Add:

- name: Install and Start Nginx

hosts: all

become: yes

tasks:

- name: Install Nginx

apt: name=nginx state=present update_cache=yes

- name: Start Nginx

service: name=nginx state=started enabled=yes

■ Output: Nginx installed and running.

Q2. Run Docker container and view logs:

docker run -d --name myapp <image_name>

docker ps

docker logs myapp

■ Output: Container running, showing app logs.

Q3. Run manual Maven build in Jenkins:

1■■■ In Jenkins → New Item → Freestyle project

2■■■ Add Git repo in Source Code Management

3■■■ Add Build Step: Invoke Maven → Goal: clean install

4■■■ Click Build Now

■ Output: Jenkins console shows 'BUILD SUCCESS'.

SET 5

Q1. Ansible Playbook for Apache2:

1■■■ Create file: apache.yml

2■■■ Add:

- name: Install and Start Apache2

hosts: all

become: yes

tasks:

- name: Install Apache2

apt: name=apache2 state=present update_cache=yes

- name: Start Apache2

service: name=apache2 state=started enabled=yes

■ Output: Apache2 installed and running.

Q2. Dockerfile to build & push image:

FROM ubuntu:latest

RUN apt update && apt install -y nginx

CMD ['nginx','-g','daemon off;']

`docker build -t <username>/nginx-demo .`

`docker login`

`docker push <username>/nginx-demo`

■ Output: Image uploaded to Docker Hub.

Q3. Create Git repo with two commits:

`git init`

`echo 'Version 1' > file.txt`

`git add . && git commit -m 'First commit'`

`echo 'Version 2' > file.txt`

`git commit -am 'Second commit'`

`git remote add origin <repo_url>`

`git push -u origin main`

■ Output: Commits visible on GitHub.

SET 6

Q1. Ansible Playbook for HAProxy:

- name: Install and Start HAProxy

hosts: all

become: yes

tasks:

- name: Update repository

apt: update_cache=yes

- name: Install HAProxy

apt: name=haproxy state=present

- name: Start HAProxy

service: name=haproxy state=started enabled=yes

■ Output: HAProxy installed and running.

Q2. Dockerfile for Python app:

`echo "print('Hello from Docker and Python!')" > app.py`

Dockerfile:

`FROM python:3.9`

`COPY app.py /app/app.py`

`WORKDIR /app`

`CMD ['python','app.py']`

`docker build -t python-hello .`

`docker run python-hello`

■ Output: Hello from Docker and Python!

Q3. Git repo with HTML file:

`git init`

`echo '<h1>Hello</h1>' > index.html`

`git add . && git commit -m 'Initial commit'`

`git remote add origin <repo_url>`

`git push -u origin main`

■ Output: Repo visible on GitHub with index.html.