Simpli-Project

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Source Code

demo-sg.tf

```
resource "aws_security_group" "demo-sg" {
  name        = "demo-sg-name"
  description = "Demo security group for demo instance"


  ingress {
    description = "ssh"
    from_port   = 22
    to_port     = 22
    protocol    = "tcp"
    cidr_blocks = ["0.0.0.0/0"]
  }

  ingress {
    description = "http"
    from_port   = 80
    to_port     = 80
    protocol    = "tcp"
    cidr_blocks = ["0.0.0.0/0"]
  }

  ingress {
    description = "http"
    from_port   = 8080
    to_port     = 8080
    protocol    = "tcp"
    cidr_blocks = ["0.0.0.0/0"]
  }

  egress {
    from_port   = 0
    to_port     = 0
    protocol    = "-1"
    cidr_blocks = ["0.0.0.0/0"]
  }

  tags = {
    Name = "demo-sg-tag"
  }
}
```

demo-key.tf

```
resource "aws_key_pair" "ec2-key" {
  key_name   = "demo-key"
  public_key = tls_private_key.demo-private.public_key_openssh
}

resource "local_file" "key-gen" {
  content         = tls_private_key.demo-private.private_key_pem
  filename        = "demo-key.pem"
  file_permission = "0400"
}

resource "tls_private_key" "demo-private" {
  algorithm = "RSA"
  rsa_bits  = 4096
}
```

demo-ec2.tf

```
provider "aws" {
  region = "us-east-1"
}



resource "aws_instance" "demo-instance" {
  ami                         = "ami-053b0d53c279acc90"
  instance_type               = "t2.micro"
  associate_public_ip_address = true
  security_groups             = [aws_security_group.demo-sg.name]
  key_name                    = "demo-key"



  connection {
    type        = "ssh"
    user        = "ubuntu"
    private_key = tls_private_key.demo-private.private_key_pem
    host        = aws_instance.demo-instance.public_ip
  }

  provisioner "file" {
    source      = "installation-scripts"
    destination = "/tmp/installation-scripts"
  }

  provisioner "remote-exec" {
    inline = [
      "chmod +x /tmp/installation-scripts/install-jenkins.sh",
      "/tmp/installation-scripts/install-jenkins.sh",
      "chmod +x /tmp/installation-scripts/install-ansible.sh",
      "/tmp/installation-scripts/install-ansible.sh",
      "chmod +x /tmp/installation-scripts/install-docker.sh",
      "/tmp/installation-scripts/install-docker.sh",
      "chmod +x /tmp/installation-scripts/setting.sh",
      "/tmp/installation-scripts/setting.sh",
    ]
  }


  tags = {
    Name = "demo-instance"
  }
}

output "instance-ip" {
  value = aws_instance.demo-instance.public_ip
}
```

install-jenkins.sh

```
#!/bin/bash
# Install Jenkins on Ubuntu
curl -fsSL https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key | sudo tee \
/usr/share/keyrings/jenkins-keyring.asc > /dev/null
echo deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] \
https://pkg.jenkins.io/debian-stable binary/ | sudo tee \
/etc/apt/sources.list.d/jenkins.list > /dev/null
sudo apt-get update
sudo apt-get install default-jre -y
sudo apt-get install jenkins -y
```

install-ansible.sh

```
#!/bin/bash
# Install Ansible on Ubuntu
sudo apt install software-properties-common -y
sudo add-apt-repository --yes --update ppa:ansible/ansible
sudo apt install ansible -y
```

install-docker.sh

```
#!/bin/bash
# Install Docker on Ubuntu
sudo apt-get install ca-certificates curl gnupg -y
sudo install -m 0755 -d /etc/apt/keyrings
curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -
o /etc/apt/keyrings/docker.gpg
sudo chmod a+r /etc/apt/keyrings/docker.gpg
echo \
  "deb [arch="$(dpkg --print-architecture)"
signed-by=/etc/apt/keyrings/docker.gpg] https://download.docker.com/linux/ubuntu
\
  "$(. /etc/os-release && echo "$VERSION_CODENAME")" stable" | \
  sudo tee /etc/apt/sources.list.d/docker.list > /dev/null

sudo apt-get update
sudo apt-get install docker-ce docker-ce-cli containerd.io docker-buildx-plugin
docker-compose-plugin -y
sudo chmod 777 /var/run/docker.sock
```

setting.sh

```
#!/bin/bash
# installing ansible plugin
pass=$(sudo cat /var/lib/jenkins/secrets/initialAdminPassword)
url=$(curl api.ipify.org)

wget http://$url:8080/jnlpJars/jenkins-cli.jar
echo "############################################################"
echo "Jenkins default password: " $pass
echo "############################################################"
java -jar jenkins-cli.jar -s http://$url:8080/ -auth admin:$pass install-plugin
ansible
sudo systemctl restart jenkins
```

deploy.yml

```
---
- hosts: localhost
  tasks:
    - name: Pull-app
      docker_container:
        name: my-app
        image: thoratshubham/portfolio:latest
        state: started
        detach: yes
        ports:
        - "80:8000"
```

Jenkinsfile

```
 pipeline {
        agent any
        parameters {
            string(name: 'myInput', description: 'Some pipeline parameters')
        }
        stages {
            stage('Fetch code') {
                steps {
                    script {
                        git 'https://github.com/net-wizard/simpli-project.git'
                    }
                }
            }
            stage('Deploy app') {
                steps {
                    script {
                        ansiblePlaybook installation: 'Ansible', playbook:
'deploy.yml'
                    }
                }
            }
        }
    }
```