Jenkins CI

Notes

Creating a Terraform pipeline that provisions VMs using Jenkins

Sadly wsl2 doesn't provide nested VMs and deployment fails

Sorry for the crappy pdf but conversion from markdown to pdf sucks

1. Creating terraform files

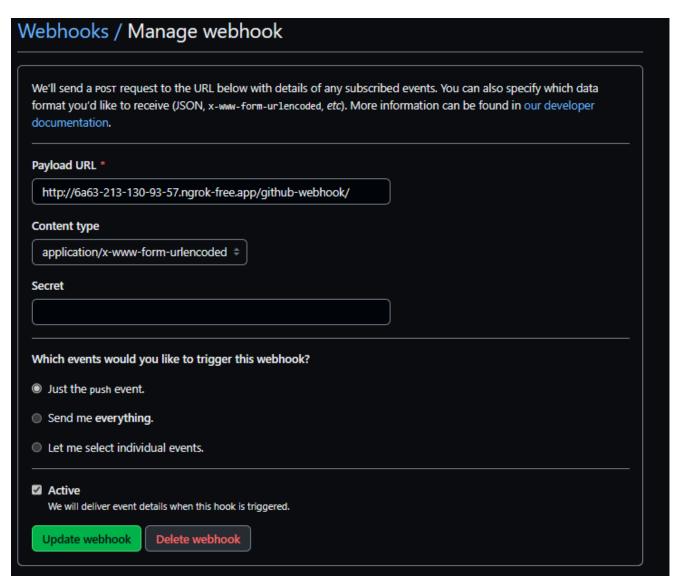
```
terraform {
required_providers {
  virtualbox = {
    source = "terra-farm/virtualbox"
    version = "0.2.2-alpha.1"
  }
}
}
# There are currently no configuration options for the provider itself.
resource "virtualbox_vm" "node" {
         = 3
count
name
         = format("node-%02d", count.index + 1)
image
         = "https://app.vagrantup.com/ubuntu/boxes/bionic64/versions/20180903.0.0/providers/virtualbox.box"
cpus
        = 2
memory = "512 mib"
status = "poweroff"
network_adapter {
                = "hostonly"
  type
  host_interface = "vboxnet1"
}
}
output "IPAddr" {
value = element(virtualbox_vm.node.*.network_adapter.0.ipv4_address, 1)
}
output "IPAddr_2" {
value = element(virtualbox_vm.node.*.network_adapter.0.ipv4_address, 2)
}
```

2. Creating Jenkins script

```
pipeline {
  tools {
      terraform 'terraform'
      }
triggers {
     githubPush()
  agent any
  stages {
      stage('Fetch repository') {
          steps {
              sh 'pwd'
          }
      }
      stage('initialize') {
          steps {
                  dir('Homework-19') {
                      sh 'pwd'
                      sh 'ls'
                      sh 'terraform init'
                  }
          }
      }
      stage('apply') {
          steps {
              dir('Homework-19') {
                   sh 'terraform apply -auto-approve'
              }
          }
      }
      stage('update virtualboxes') {
          steps {
              sh 'ansible'
          }
      }
  }
}
```

3. Setting up Github hooks

• Using ngrok for estableshing a tunnel with the local jenkins server



4. Running the pipes

Stage View

