CSDO1010 Assignment 3

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# Repo:

https://github.com/PaulKrznaric/yorku-devops-assignment3

# Proof:

## Terraform Apply:

Text

Description automatically generated with medium confidence  
> terraform apply

module.vpc.aws\_vpc.tf\_vpc: Refreshing state... [id=vpc-0228ca6b9b7f8b42d]

module.compute.aws\_key\_pair.aws-key: Refreshing state... [id=webserver]

module.vpc.aws\_internet\_gateway.tf\_igw: Refreshing state... [id=igw-06c30a8a784defd6f]

module.vpc.aws\_subnet.tf\_public\_subnet: Refreshing state... [id=subnet-0fe73b367711cb9fc]

module.vpc.aws\_security\_group.tf\_public\_sg: Refreshing state... [id=sg-09cf8757c78c815df]

module.vpc.aws\_route\_table.tf\_public\_route: Refreshing state... [id=rtb-0c86f826673999212]

module.compute.aws\_instance.webserver: Refreshing state... [id=i-0ac2208b728cc1349]

module.vpc.aws\_route\_table\_association.tf\_public\_assoc: Refreshing state... [id=rtbassoc-0a02a1ec9a2649465]

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following

symbols:

-/+ destroy and then create replacement

Terraform will perform the following actions:

# module.compute.aws\_instance.webserver is tainted, so must be replaced

-/+ resource "aws\_instance" "webserver" {

~ arn = "arn:aws:ec2:us-east-1:765987856902:instance/i-0ac2208b728cc1349" -> (known after apply)

~ availability\_zone = "us-east-1a" -> (known after apply)

~ cpu\_core\_count = 1 -> (known after apply)

~ cpu\_threads\_per\_core = 1 -> (known after apply)

- disable\_api\_termination = false -> null

- ebs\_optimized = false -> null

- hibernation = false -> null

+ host\_id = (known after apply)

- iam\_instance\_profile = "" -> null

~ id = "i-0ac2208b728cc1349" -> (known after apply)

~ instance\_initiated\_shutdown\_behavior = "stop" -> (known after apply)

~ instance\_state = "running" -> (known after apply)

~ ipv6\_address\_count = 0 -> (known after apply)

~ ipv6\_addresses = [] -> (known after apply)

- monitoring = false -> null

~ outpost\_arn = "" -> (known after apply)

~ password\_data = "" -> (known after apply)

~ placement\_group = "" -> (known after apply)

~ primary\_network\_interface\_id = "eni-0991a1917dd317abe" -> (known after apply)

~ private\_dns = "ip-10-0-1-220.ec2.internal" -> (known after apply)

~ private\_ip = "10.0.1.220" -> (known after apply)

~ public\_dns = "ec2-54-221-158-214.compute-1.amazonaws.com" -> (known after apply)

~ public\_ip = "54.221.158.214" -> (known after apply)

~ secondary\_private\_ips = [] -> (known after apply)

~ security\_groups = [] -> (known after apply)

tags = {

"Name" = "webserver\_tf"

}

~ tenancy = "default" -> (known after apply)

# (9 unchanged attributes hidden)

~ capacity\_reservation\_specification {

~ capacity\_reservation\_preference = "open" -> (known after apply)

+ capacity\_reservation\_target {

+ capacity\_reservation\_id = (known after apply)

}

}

- credit\_specification {

- cpu\_credits = "standard" -> null

}

+ ebs\_block\_device {

+ delete\_on\_termination = (known after apply)

+ device\_name = (known after apply)

+ encrypted = (known after apply)

+ iops = (known after apply)

+ kms\_key\_id = (known after apply)

+ snapshot\_id = (known after apply)

+ tags = (known after apply)

+ throughput = (known after apply)

+ volume\_id = (known after apply)

+ volume\_size = (known after apply)

+ volume\_type = (known after apply)

}

~ enclave\_options {

~ enabled = false -> (known after apply)

}

+ ephemeral\_block\_device {

+ device\_name = (known after apply)

+ no\_device = (known after apply)

+ virtual\_name = (known after apply)

}

~ metadata\_options {

~ http\_endpoint = "enabled" -> (known after apply)

~ http\_put\_response\_hop\_limit = 1 -> (known after apply)

~ http\_tokens = "optional" -> (known after apply)

}

+ network\_interface {

+ delete\_on\_termination = (known after apply)

+ device\_index = (known after apply)

+ network\_interface\_id = (known after apply)

}

~ root\_block\_device {

~ delete\_on\_termination = true -> (known after apply)

~ device\_name = "/dev/xvda" -> (known after apply)

~ encrypted = false -> (known after apply)

~ iops = 100 -> (known after apply)

+ kms\_key\_id = (known after apply)

~ tags = {} -> (known after apply)

~ throughput = 0 -> (known after apply)

~ volume\_id = "vol-0d6a129d247441caf" -> (known after apply)

~ volume\_size = 8 -> (known after apply)

~ volume\_type = "gp2" -> (known after apply)

}

}

# module.compute.aws\_key\_pair.aws-key must be replaced

-/+ resource "aws\_key\_pair" "aws-key" {

~ arn = "arn:aws:ec2:us-east-1:765987856902:key-pair/webserver" -> (known after apply)

~ fingerprint = "97:89:f9:0d:15:34:21:6a:a6:ba:75:8a:c2:cb:7d:20" -> (known after apply)

~ id = "webserver" -> (known after apply)

~ key\_pair\_id = "key-0ce5375558efdc2d5" -> (known after apply)

~ public\_key = "ssh-rsa  paulkrznaric@gmail.com" -> "ssh-rsa  paulkrznaric@Pauls-MBP.local" # forces replacement

- tags = {} -> null

~ tags\_all = {} -> (known after apply)

# (1 unchanged attribute hidden)

}

Plan: 2 to add, 0 to change, 2 to destroy.

Changes to Outputs:

+ Apache-Webserver-Public-URL = (known after apply)

Do you want to perform these actions?

Terraform will perform the actions described above.

Only 'yes' will be accepted to approve.

Enter a value: yes

module.compute.aws\_instance.webserver: Destroying... [id=i-0ac2208b728cc1349]

module.compute.aws\_instance.webserver: Still destroying... [id=i-0ac2208b728cc1349, 10s elapsed]

module.compute.aws\_instance.webserver: Still destroying... [id=i-0ac2208b728cc1349, 20s elapsed]

module.compute.aws\_instance.webserver: Still destroying... [id=i-0ac2208b728cc1349, 30s elapsed]

module.compute.aws\_instance.webserver: Still destroying... [id=i-0ac2208b728cc1349, 40s elapsed]

module.compute.aws\_instance.webserver: Destruction complete after 41s

module.compute.aws\_key\_pair.aws-key: Destroying... [id=webserver]

module.compute.aws\_key\_pair.aws-key: Destruction complete after 1s

module.compute.aws\_key\_pair.aws-key: Creating...

module.compute.aws\_key\_pair.aws-key: Creation complete after 0s [id=webserver]

module.compute.aws\_instance.webserver: Creating...

module.compute.aws\_instance.webserver: Still creating... [10s elapsed]

module.compute.aws\_instance.webserver: Still creating... [20s elapsed]

module.compute.aws\_instance.webserver: Still creating... [30s elapsed]

module.compute.aws\_instance.webserver: Still creating... [40s elapsed]

module.compute.aws\_instance.webserver: Provisioning with 'file'...

module.compute.aws\_instance.webserver: Still creating... [50s elapsed]

module.compute.aws\_instance.webserver: Provisioning with 'remote-exec'...

module.compute.aws\_instance.webserver (remote-exec): Connecting to remote host via SSH...

module.compute.aws\_instance.webserver (remote-exec): Host: 54.163.18.216

module.compute.aws\_instance.webserver (remote-exec): User: ec2-user

module.compute.aws\_instance.webserver (remote-exec): Password: false

module.compute.aws\_instance.webserver (remote-exec): Private key: true

module.compute.aws\_instance.webserver (remote-exec): Certificate: false

module.compute.aws\_instance.webserver (remote-exec): SSH Agent: true

module.compute.aws\_instance.webserver (remote-exec): Checking Host Key: false

module.compute.aws\_instance.webserver (remote-exec): Target Platform: unix

module.compute.aws\_instance.webserver (remote-exec): Connected!

module.compute.aws\_instance.webserver (remote-exec): Loaded plugins: extras\_suggestions,

module.compute.aws\_instance.webserver (remote-exec): : langpacks, priorities,

module.compute.aws\_instance.webserver (remote-exec): : update-motd

module.compute.aws\_instance.webserver (remote-exec): Existing lock /var/run/yum.pid: another copy is running as pid 3145.

module.compute.aws\_instance.webserver (remote-exec): Another app is currently holding the yum lock; waiting for it to exit...

module.compute.aws\_instance.webserver (remote-exec): The other application is: yum

module.compute.aws\_instance.webserver (remote-exec): Memory : 50 M RSS (342 MB VSZ)

module.compute.aws\_instance.webserver (remote-exec): Started: Sun Dec 5 03:06:19 2021 - 00:05 ago

module.compute.aws\_instance.webserver (remote-exec): State : Running, pid: 3145

module.compute.aws\_instance.webserver (remote-exec): Another app is currently holding the yum lock; waiting for it to exit...

module.compute.aws\_instance.webserver (remote-exec): The other application is: yum

module.compute.aws\_instance.webserver (remote-exec): Memory : 82 M RSS (375 MB VSZ)

module.compute.aws\_instance.webserver (remote-exec): Started: Sun Dec 5 03:06:19 2021 - 00:07 ago

module.compute.aws\_instance.webserver (remote-exec): State : Running, pid: 3145

module.compute.aws\_instance.webserver (remote-exec): Another app is currently holding the yum lock; waiting for it to exit...

module.compute.aws\_instance.webserver (remote-exec): The other application is: yum

module.compute.aws\_instance.webserver (remote-exec): Memory : 155 M RSS (448 MB VSZ)

module.compute.aws\_instance.webserver (remote-exec): Started: Sun Dec 5 03:06:19 2021 - 00:09 ago

module.compute.aws\_instance.webserver (remote-exec): State : Running, pid: 3145

module.compute.aws\_instance.webserver: Still creating... [1m0s elapsed]

module.compute.aws\_instance.webserver (remote-exec): No packages marked for update

module.compute.aws\_instance.webserver (remote-exec): Installing ansible

module.compute.aws\_instance.webserver (remote-exec): Loaded plugins: extras\_suggestions,

module.compute.aws\_instance.webserver (remote-exec): : langpacks, priorities,

module.compute.aws\_instance.webserver (remote-exec): : update-motd

module.compute.aws\_instance.webserver (remote-exec): Cleaning repos: amzn2-core

module.compute.aws\_instance.webserver (remote-exec): ...: amzn2extra-ansible2

module.compute.aws\_instance.webserver (remote-exec): ...: amzn2extra-docker

module.compute.aws\_instance.webserver (remote-exec): 12 metadata files removed

module.compute.aws\_instance.webserver (remote-exec): 4 sqlite files removed

module.compute.aws\_instance.webserver (remote-exec): 0 metadata files removed

module.compute.aws\_instance.webserver (remote-exec): Loaded plugins: extras\_suggestions,

module.compute.aws\_instance.webserver (remote-exec): : langpacks, priorities,

module.compute.aws\_instance.webserver (remote-exec): : update-motd

module.compute.aws\_instance.webserver (remote-exec): amzn2-core | 3.7 kB 00:00

module.compute.aws\_instance.webserver (remote-exec): amzn2extra-ansib | 3.0 kB 00:00

module.compute.aws\_instance.webserver (remote-exec): amzn2extra-docke | 3.0 kB 00:00

module.compute.aws\_instance.webserver (remote-exec): (1/7): amzn2-core/ | 2.5 kB 00:00

module.compute.aws\_instance.webserver (remote-exec): (2/7): amzn2-core/ | 424 kB 00:00

module.compute.aws\_instance.webserver (remote-exec): (3/7): amzn2extra- | 86 kB 00:00

module.compute.aws\_instance.webserver (remote-exec): (4/7): amzn2extra- | 76 B 00:00

module.compute.aws\_instance.webserver (remote-exec): (5/7): amzn2extra- | 39 kB 00:00

module.compute.aws\_instance.webserver (remote-exec): (6/7): amzn2extra- | 4.7 kB 00:00

module.compute.aws\_instance.webserver (remote-exec): (7/7): amzn2-c 21% | 13 MB --:-- ETA

module.compute.aws\_instance.webserver (remote-exec): (7/7): amzn2-c 51% | 30 MB 00:01 ETA

module.compute.aws\_instance.webserver (remote-exec): (7/7): amzn2-c 84% | 50 MB 00:00 ETA

module.compute.aws\_instance.webserver (remote-exec): (7/7): amzn2-core/ | 58 MB 00:01

module.compute.aws\_instance.webserver (remote-exec): Resolving Dependencies

module.compute.aws\_instance.webserver (remote-exec): --> Running transaction check

module.compute.aws\_instance.webserver (remote-exec): ---> Package ansible.noarch 0:2.9.23-1.amzn2 will be installed

module.compute.aws\_instance.webserver (remote-exec): --> Processing Dependency: sshpass for package: ansible-2.9.23-1.amzn2.noarch

module.compute.aws\_instance.webserver (remote-exec): --> Processing Dependency: python-paramiko for package: ansible-2.9.23-1.amzn2.noarch

module.compute.aws\_instance.webserver (remote-exec): --> Processing Dependency: python-keyczar for package: ansible-2.9.23-1.amzn2.noarch

module.compute.aws\_instance.webserver (remote-exec): --> Processing Dependency: python-httplib2 for package: ansible-2.9.23-1.amzn2.noarch

module.compute.aws\_instance.webserver (remote-exec): --> Processing Dependency: python-crypto for package: ansible-2.9.23-1.amzn2.noarch

module.compute.aws\_instance.webserver (remote-exec): --> Running transaction check

module.compute.aws\_instance.webserver (remote-exec): ---> Package python-keyczar.noarch 0:0.71c-2.amzn2 will be installed

module.compute.aws\_instance.webserver (remote-exec): ---> Package python2-crypto.x86\_64 0:2.6.1-13.amzn2.0.3 will be installed

module.compute.aws\_instance.webserver (remote-exec): --> Processing Dependency: libtomcrypt.so.1()(64bit) for package: python2-crypto-2.6.1-13.amzn2.0.3.x86\_64

module.compute.aws\_instance.webserver (remote-exec): ---> Package python2-httplib2.noarch 0:0.18.1-3.amzn2 will be installed

module.compute.aws\_instance.webserver (remote-exec): ---> Package python2-paramiko.noarch 0:1.16.1-3.amzn2.0.2 will be installed

module.compute.aws\_instance.webserver (remote-exec): --> Processing Dependency: python2-ecdsa for package: python2-paramiko-1.16.1-3.amzn2.0.2.noarch

module.compute.aws\_instance.webserver (remote-exec): ---> Package sshpass.x86\_64 0:1.06-1.amzn2.0.1 will be installed

module.compute.aws\_instance.webserver (remote-exec): --> Running transaction check

module.compute.aws\_instance.webserver (remote-exec): ---> Package libtomcrypt.x86\_64 0:1.18.2-1.amzn2.0.1 will be installed

module.compute.aws\_instance.webserver (remote-exec): --> Processing Dependency: libtommath >= 1.0 for package: libtomcrypt-1.18.2-1.amzn2.0.1.x86\_64

module.compute.aws\_instance.webserver (remote-exec): --> Processing Dependency: libtommath.so.1()(64bit) for package: libtomcrypt-1.18.2-1.amzn2.0.1.x86\_64

module.compute.aws\_instance.webserver (remote-exec): ---> Package python2-ecdsa.noarch 0:0.13.3-1.amzn2.0.1 will be installed

module.compute.aws\_instance.webserver (remote-exec): --> Running transaction check

module.compute.aws\_instance.webserver (remote-exec): ---> Package libtommath.x86\_64 0:1.0.1-4.amzn2.0.1 will be installed

module.compute.aws\_instance.webserver (remote-exec): --> Finished Dependency Resolution

module.compute.aws\_instance.webserver (remote-exec): Dependencies Resolved

module.compute.aws\_instance.webserver (remote-exec): ========================================

module.compute.aws\_instance.webserver (remote-exec): Package

module.compute.aws\_instance.webserver (remote-exec): Arch Version

module.compute.aws\_instance.webserver (remote-exec): Repository Size

module.compute.aws\_instance.webserver (remote-exec): ========================================

module.compute.aws\_instance.webserver (remote-exec): Installing:

module.compute.aws\_instance.webserver (remote-exec): ansible

module.compute.aws\_instance.webserver (remote-exec): noarch 2.9.23-1.amzn2

module.compute.aws\_instance.webserver (remote-exec): amzn2extra-ansible2 17 M

module.compute.aws\_instance.webserver (remote-exec): Installing for dependencies:

module.compute.aws\_instance.webserver (remote-exec): libtomcrypt

module.compute.aws\_instance.webserver (remote-exec): x86\_64 1.18.2-1.amzn2.0.1

module.compute.aws\_instance.webserver (remote-exec): amzn2extra-ansible2 409 k

module.compute.aws\_instance.webserver (remote-exec): libtommath

module.compute.aws\_instance.webserver (remote-exec): x86\_64 1.0.1-4.amzn2.0.1

module.compute.aws\_instance.webserver (remote-exec): amzn2extra-ansible2 36 k

module.compute.aws\_instance.webserver (remote-exec): python-keyczar

module.compute.aws\_instance.webserver (remote-exec): noarch 0.71c-2.amzn2

module.compute.aws\_instance.webserver (remote-exec): amzn2extra-ansible2 218 k

module.compute.aws\_instance.webserver (remote-exec): python2-crypto

module.compute.aws\_instance.webserver (remote-exec): x86\_64 2.6.1-13.amzn2.0.3

module.compute.aws\_instance.webserver (remote-exec): amzn2extra-ansible2 476 k

module.compute.aws\_instance.webserver (remote-exec): python2-ecdsa

module.compute.aws\_instance.webserver (remote-exec): noarch 0.13.3-1.amzn2.0.1

module.compute.aws\_instance.webserver (remote-exec): amzn2extra-ansible2 94 k

module.compute.aws\_instance.webserver (remote-exec): python2-httplib2

module.compute.aws\_instance.webserver (remote-exec): noarch 0.18.1-3.amzn2

module.compute.aws\_instance.webserver (remote-exec): amzn2extra-ansible2 125 k

module.compute.aws\_instance.webserver (remote-exec): python2-paramiko

module.compute.aws\_instance.webserver (remote-exec): noarch 1.16.1-3.amzn2.0.2

module.compute.aws\_instance.webserver (remote-exec): amzn2extra-ansible2 259 k

module.compute.aws\_instance.webserver (remote-exec): sshpass

module.compute.aws\_instance.webserver (remote-exec): x86\_64 1.06-1.amzn2.0.1

module.compute.aws\_instance.webserver (remote-exec): amzn2extra-ansible2 22 k

module.compute.aws\_instance.webserver (remote-exec): Transaction Summary

module.compute.aws\_instance.webserver (remote-exec): ========================================

module.compute.aws\_instance.webserver (remote-exec): Install 1 Package (+8 Dependent packages)

module.compute.aws\_instance.webserver (remote-exec): Total download size: 19 M

module.compute.aws\_instance.webserver (remote-exec): Installed size: 110 M

module.compute.aws\_instance.webserver (remote-exec): Downloading packages:

module.compute.aws\_instance.webserver (remote-exec): (1/9): libtomcrypt | 409 kB 00:00

module.compute.aws\_instance.webserver (remote-exec): (2/9): libtommath- | 36 kB 00:00

module.compute.aws\_instance.webserver (remote-exec): (3/9): python-keyc | 218 kB 00:00

module.compute.aws\_instance.webserver (remote-exec): (4/9): python2-cry | 476 kB 00:00

module.compute.aws\_instance.webserver (remote-exec): (5/9): python2-ecd | 94 kB 00:00

module.compute.aws\_instance.webserver (remote-exec): (6/9): python2-htt | 125 kB 00:00

module.compute.aws\_instance.webserver (remote-exec): (7/9): python2-par | 259 kB 00:00

module.compute.aws\_instance.webserver (remote-exec): (8/9): ansible-2.9 | 17 MB 00:00

module.compute.aws\_instance.webserver (remote-exec): (9/9): sshpass-1.0 | 22 kB 00:00

module.compute.aws\_instance.webserver (remote-exec): ----------------------------------------

module.compute.aws\_instance.webserver (remote-exec): Total 53 MB/s | 19 MB 00:00

module.compute.aws\_instance.webserver (remote-exec): Running transaction check

module.compute.aws\_instance.webserver (remote-exec): Running transaction test

module.compute.aws\_instance.webserver (remote-exec): Transaction test succeeded

module.compute.aws\_instance.webserver (remote-exec): Running transaction

module.compute.aws\_instance.webserver: Still creating... [1m10s elapsed]

module.compute.aws\_instance.webserver (remote-exec): Installing : sshpass- [ ] 1/9

module.compute.aws\_instance.webserver (remote-exec): Installing : sshpass- [### ] 1/9

module.compute.aws\_instance.webserver (remote-exec): Installing : sshpass- [####### ] 1/9

module.compute.aws\_instance.webserver (remote-exec): Installing : sshpass- [######## ] 1/9

module.compute.aws\_instance.webserver (remote-exec): Installing : sshpass-1.06-1.amz 1/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [ ] 2/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [# ] 2/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [## ] 2/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [#### ] 2/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [##### ] 2/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [###### ] 2/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [######## ] 2/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2-httplib2-0 2/9

module.compute.aws\_instance.webserver (remote-exec): Installing : libtomma [ ] 3/9

module.compute.aws\_instance.webserver (remote-exec): Installing : libtomma [####### ] 3/9

module.compute.aws\_instance.webserver (remote-exec): Installing : libtomma [######## ] 3/9

module.compute.aws\_instance.webserver (remote-exec): Installing : libtommath-1.0.1-4 3/9

module.compute.aws\_instance.webserver (remote-exec): Installing : libtomcr [ ] 4/9

module.compute.aws\_instance.webserver (remote-exec): Installing : libtomcr [# ] 4/9

module.compute.aws\_instance.webserver (remote-exec): Installing : libtomcr [## ] 4/9

module.compute.aws\_instance.webserver (remote-exec): Installing : libtomcr [### ] 4/9

module.compute.aws\_instance.webserver (remote-exec): Installing : libtomcr [#### ] 4/9

module.compute.aws\_instance.webserver (remote-exec): Installing : libtomcr [##### ] 4/9

module.compute.aws\_instance.webserver (remote-exec): Installing : libtomcr [###### ] 4/9

module.compute.aws\_instance.webserver (remote-exec): Installing : libtomcr [####### ] 4/9

module.compute.aws\_instance.webserver (remote-exec): Installing : libtomcr [######## ] 4/9

module.compute.aws\_instance.webserver (remote-exec): Installing : libtomcrypt-1.18.2 4/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [ ] 5/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [# ] 5/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [## ] 5/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [### ] 5/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [#### ] 5/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [##### ] 5/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [###### ] 5/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [####### ] 5/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [######## ] 5/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2-crypto-2.6 5/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python-k [ ] 6/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python-k [# ] 6/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python-k [## ] 6/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python-k [### ] 6/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python-k [#### ] 6/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python-k [##### ] 6/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python-k [###### ] 6/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python-k [####### ] 6/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python-k [######## ] 6/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python-keyczar-0.7 6/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [ ] 7/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [# ] 7/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [## ] 7/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [### ] 7/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [#### ] 7/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [##### ] 7/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [###### ] 7/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [####### ] 7/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [######## ] 7/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2-ecdsa-0.13 7/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [ ] 8/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [# ] 8/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [## ] 8/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [### ] 8/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [#### ] 8/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [##### ] 8/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [###### ] 8/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [####### ] 8/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2- [######## ] 8/9

module.compute.aws\_instance.webserver (remote-exec): Installing : python2-paramiko-1 8/9

module.compute.aws\_instance.webserver (remote-exec): Installing : ansible- [ ] 9/9

module.compute.aws\_instance.webserver (remote-exec): Installing : ansible- [# ] 9/9

module.compute.aws\_instance.webserver (remote-exec): Installing : ansible- [## ] 9/9

module.compute.aws\_instance.webserver (remote-exec): Installing : ansible- [### ] 9/9

module.compute.aws\_instance.webserver (remote-exec): Installing : ansible- [#### ] 9/9

module.compute.aws\_instance.webserver (remote-exec): Installing : ansible- [##### ] 9/9

module.compute.aws\_instance.webserver (remote-exec): Installing : ansible- [###### ] 9/9

module.compute.aws\_instance.webserver (remote-exec): Installing : ansible- [####### ] 9/9

module.compute.aws\_instance.webserver (remote-exec): Installing : ansible- [######## ] 9/9

module.compute.aws\_instance.webserver (remote-exec): Installing : ansible-2.9.23-1.a 9/9

module.compute.aws\_instance.webserver: Still creating... [1m20s elapsed]

module.compute.aws\_instance.webserver (remote-exec): Verifying : python2-ecdsa-0.13 1/9

module.compute.aws\_instance.webserver (remote-exec): Verifying : libtommath-1.0.1-4 2/9

module.compute.aws\_instance.webserver (remote-exec): Verifying : python2-crypto-2.6 3/9

module.compute.aws\_instance.webserver (remote-exec): Verifying : ansible-2.9.23-1.a 4/9

module.compute.aws\_instance.webserver (remote-exec): Verifying : python-keyczar-0.7 5/9

module.compute.aws\_instance.webserver (remote-exec): Verifying : libtomcrypt-1.18.2 6/9

module.compute.aws\_instance.webserver (remote-exec): Verifying : python2-paramiko-1 7/9

module.compute.aws\_instance.webserver (remote-exec): Verifying : python2-httplib2-0 8/9

module.compute.aws\_instance.webserver (remote-exec): Verifying : sshpass-1.06-1.amz 9/9

module.compute.aws\_instance.webserver (remote-exec): Installed:

module.compute.aws\_instance.webserver (remote-exec): ansible.noarch 0:2.9.23-1.amzn2

module.compute.aws\_instance.webserver (remote-exec): Dependency Installed:

module.compute.aws\_instance.webserver (remote-exec): libtomcrypt.x86\_64 0:1.18.2-1.amzn2.0.1

module.compute.aws\_instance.webserver (remote-exec): libtommath.x86\_64 0:1.0.1-4.amzn2.0.1

module.compute.aws\_instance.webserver (remote-exec): python-keyczar.noarch 0:0.71c-2.amzn2

module.compute.aws\_instance.webserver (remote-exec): python2-crypto.x86\_64 0:2.6.1-13.amzn2.0.3

module.compute.aws\_instance.webserver (remote-exec): python2-ecdsa.noarch 0:0.13.3-1.amzn2.0.1

module.compute.aws\_instance.webserver (remote-exec): python2-httplib2.noarch 0:0.18.1-3.amzn2

module.compute.aws\_instance.webserver (remote-exec): python2-paramiko.noarch 0:1.16.1-3.amzn2.0.2

module.compute.aws\_instance.webserver (remote-exec): sshpass.x86\_64 0:1.06-1.amzn2.0.1

module.compute.aws\_instance.webserver (remote-exec): Complete!

module.compute.aws\_instance.webserver (remote-exec): 0 ansible2=latest enabled \

module.compute.aws\_instance.webserver (remote-exec): [ =2.4.2 =2.4.6 =2.8 =stable ]

module.compute.aws\_instance.webserver (remote-exec): 2 httpd\_modules available [ =1.0 =stable ]

module.compute.aws\_instance.webserver (remote-exec): 3 memcached1.5 available \

module.compute.aws\_instance.webserver (remote-exec): [ =1.5.1 =1.5.16 =1.5.17 ]

module.compute.aws\_instance.webserver (remote-exec): 5 postgresql9.6 available \

module.compute.aws\_instance.webserver (remote-exec): [ =9.6.6 =9.6.8 =stable ]

module.compute.aws\_instance.webserver (remote-exec): 6 postgresql10 available [ =10 =stable ]

module.compute.aws\_instance.webserver (remote-exec): 9 R3.4 available [ =3.4.3 =stable ]

module.compute.aws\_instance.webserver (remote-exec): 10 rust1 available \

module.compute.aws\_instance.webserver (remote-exec): [ =1.22.1 =1.26.0 =1.26.1 =1.27.2 =1.31.0 =1.38.0

module.compute.aws\_instance.webserver (remote-exec): =stable ]

module.compute.aws\_instance.webserver (remote-exec): 11 vim available [ =8.0 =stable ]

module.compute.aws\_instance.webserver (remote-exec): 15 php7.2 available \

module.compute.aws\_instance.webserver (remote-exec): [ =7.2.0 =7.2.4 =7.2.5 =7.2.8 =7.2.11 =7.2.13 =7.2.14

module.compute.aws\_instance.webserver (remote-exec): =7.2.16 =7.2.17 =7.2.19 =7.2.21 =7.2.22 =7.2.23

module.compute.aws\_instance.webserver (remote-exec): =7.2.24 =7.2.26 =stable ]

module.compute.aws\_instance.webserver (remote-exec): 17 lamp-mariadb10.2-php7.2 available \

module.compute.aws\_instance.webserver (remote-exec): [ =10.2.10\_7.2.0 =10.2.10\_7.2.4 =10.2.10\_7.2.5

module.compute.aws\_instance.webserver (remote-exec): =10.2.10\_7.2.8 =10.2.10\_7.2.11 =10.2.10\_7.2.13

module.compute.aws\_instance.webserver (remote-exec): =10.2.10\_7.2.14 =10.2.10\_7.2.16 =10.2.10\_7.2.17

module.compute.aws\_instance.webserver (remote-exec): =10.2.10\_7.2.19 =10.2.10\_7.2.22 =10.2.10\_7.2.23

module.compute.aws\_instance.webserver (remote-exec): =10.2.10\_7.2.24 =stable ]

module.compute.aws\_instance.webserver (remote-exec): 18 libreoffice available \

module.compute.aws\_instance.webserver (remote-exec): [ =5.0.6.2\_15 =5.3.6.1 =stable ]

module.compute.aws\_instance.webserver (remote-exec): 19 gimp available [ =2.8.22 ]

module.compute.aws\_instance.webserver (remote-exec): 20 docker=latest enabled \

module.compute.aws\_instance.webserver (remote-exec): [ =17.12.1 =18.03.1 =18.06.1 =18.09.9 =stable ]

module.compute.aws\_instance.webserver (remote-exec): 21 mate-desktop1.x available \

module.compute.aws\_instance.webserver (remote-exec): [ =1.19.0 =1.20.0 =stable ]

module.compute.aws\_instance.webserver (remote-exec): 22 GraphicsMagick1.3 available \

module.compute.aws\_instance.webserver (remote-exec): [ =1.3.29 =1.3.32 =1.3.34 =stable ]

module.compute.aws\_instance.webserver (remote-exec): 23 tomcat8.5 available \

module.compute.aws\_instance.webserver (remote-exec): [ =8.5.31 =8.5.32 =8.5.38 =8.5.40 =8.5.42 =8.5.50

module.compute.aws\_instance.webserver (remote-exec): =stable ]

module.compute.aws\_instance.webserver (remote-exec): 24 epel available [ =7.11 =stable ]

module.compute.aws\_instance.webserver (remote-exec): 25 testing available [ =1.0 =stable ]

module.compute.aws\_instance.webserver (remote-exec): 26 ecs available [ =stable ]

module.compute.aws\_instance.webserver (remote-exec): 27 corretto8 available \

module.compute.aws\_instance.webserver (remote-exec): [ =1.8.0\_192 =1.8.0\_202 =1.8.0\_212 =1.8.0\_222 =1.8.0\_232

module.compute.aws\_instance.webserver (remote-exec): =1.8.0\_242 =stable ]

module.compute.aws\_instance.webserver (remote-exec): 28 firecracker available [ =0.11 =stable ]

module.compute.aws\_instance.webserver (remote-exec): 29 golang1.11 available \

module.compute.aws\_instance.webserver (remote-exec): [ =1.11.3 =1.11.11 =1.11.13 =stable ]

module.compute.aws\_instance.webserver (remote-exec): 30 squid4 available [ =4 =stable ]

module.compute.aws\_instance.webserver (remote-exec): 31 php7.3 available \

module.compute.aws\_instance.webserver (remote-exec): [ =7.3.2 =7.3.3 =7.3.4 =7.3.6 =7.3.8 =7.3.9 =7.3.10

module.compute.aws\_instance.webserver (remote-exec): =7.3.11 =7.3.13 =stable ]

module.compute.aws\_instance.webserver (remote-exec): 32 lustre2.10 available \

module.compute.aws\_instance.webserver (remote-exec): [ =2.10.5 =2.10.8 =stable ]

module.compute.aws\_instance.webserver (remote-exec): 33 java-openjdk11 available [ =11 =stable ]

module.compute.aws\_instance.webserver (remote-exec): 34 lynis available [ =stable ]

module.compute.aws\_instance.webserver (remote-exec): 35 kernel-ng available [ =stable ]

module.compute.aws\_instance.webserver (remote-exec): 36 BCC available [ =0.x =stable ]

module.compute.aws\_instance.webserver (remote-exec): 37 mono available [ =5.x =stable ]

module.compute.aws\_instance.webserver (remote-exec): 38 nginx1 available [ =stable ]

module.compute.aws\_instance.webserver (remote-exec): 39 ruby2.6 available [ =2.6 =stable ]

module.compute.aws\_instance.webserver (remote-exec): 40 mock available [ =stable ]

module.compute.aws\_instance.webserver (remote-exec): 41 postgresql11 available [ =11 =stable ]

module.compute.aws\_instance.webserver (remote-exec): 42 php7.4 available [ =stable ]

module.compute.aws\_instance.webserver (remote-exec): 43 livepatch available [ =stable ]

module.compute.aws\_instance.webserver (remote-exec): 44 python3.8 available [ =stable ]

module.compute.aws\_instance.webserver (remote-exec): 45 haproxy2 available [ =stable ]

module.compute.aws\_instance.webserver (remote-exec): 46 collectd available [ =stable ]

module.compute.aws\_instance.webserver (remote-exec): 47 aws-nitro-enclaves-cli available [ =stable ]

module.compute.aws\_instance.webserver (remote-exec): 48 R4 available [ =stable ]

module.compute.aws\_instance.webserver (remote-exec): 49 kernel-5.4 available [ =stable ]

module.compute.aws\_instance.webserver (remote-exec): 50 selinux-ng available [ =stable ]

module.compute.aws\_instance.webserver (remote-exec): 51 php8.0 available [ =stable ]

module.compute.aws\_instance.webserver (remote-exec): 52 tomcat9 available [ =stable ]

module.compute.aws\_instance.webserver (remote-exec): 53 unbound1.13 available [ =stable ]

module.compute.aws\_instance.webserver (remote-exec): 54 mariadb10.5 available [ =stable ]

module.compute.aws\_instance.webserver (remote-exec): 55 kernel-5.10 available [ =stable ]

module.compute.aws\_instance.webserver (remote-exec): 56 redis6 available [ =stable ]

module.compute.aws\_instance.webserver (remote-exec): 57 ruby3.0 available [ =stable ]

module.compute.aws\_instance.webserver (remote-exec): 58 postgresql12 available [ =stable ]

module.compute.aws\_instance.webserver (remote-exec): 59 postgresql13 available [ =stable ]

module.compute.aws\_instance.webserver (remote-exec): 60 mock2 available [ =stable ]

module.compute.aws\_instance.webserver (remote-exec): 61 dnsmasq2.85 available [ =stable ]

module.compute.aws\_instance.webserver: Still creating... [1m30s elapsed]

module.compute.aws\_instance.webserver: Still creating... [1m40s elapsed]

module.compute.aws\_instance.webserver: Still creating... [1m50s elapsed]

module.compute.aws\_instance.webserver: Still creating... [2m0s elapsed]

module.compute.aws\_instance.webserver: Still creating... [2m10s elapsed]

module.compute.aws\_instance.webserver: Still creating... [2m20s elapsed]

module.compute.aws\_instance.webserver (remote-exec): [WARNING]: provided hosts list is empty, only localhost is available. Note that

module.compute.aws\_instance.webserver (remote-exec): the implicit localhost does not match 'all'

module.compute.aws\_instance.webserver (remote-exec): PLAY [Web Server] \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

module.compute.aws\_instance.webserver (remote-exec): TASK [Gathering Facts] \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

module.compute.aws\_instance.webserver (remote-exec): ok: [localhost]

module.compute.aws\_instance.webserver (remote-exec): TASK [Install apache packages] \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

module.compute.aws\_instance.webserver (remote-exec): changed: [localhost]

module.compute.aws\_instance.webserver (remote-exec): TASK [Extract master.zip into /tmp] \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

module.compute.aws\_instance.webserver: Still creating... [2m30s elapsed]

module.compute.aws\_instance.webserver (remote-exec): changed: [localhost]

module.compute.aws\_instance.webserver (remote-exec): TASK [Copy CSCC1030-master directory contents into /var/www/html] \*\*\*\*\*\*\*\*\*\*\*\*\*\*

module.compute.aws\_instance.webserver (remote-exec): changed: [localhost]

module.compute.aws\_instance.webserver (remote-exec): TASK [Ensure httpd is running] \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

module.compute.aws\_instance.webserver (remote-exec): changed: [localhost]

module.compute.aws\_instance.webserver (remote-exec): PLAY RECAP \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

module.compute.aws\_instance.webserver (remote-exec): localhost : ok=5 changed=4 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0

module.compute.aws\_instance.webserver: Creation complete after 2m39s [id=i-020870693b6d668b4]

Apply complete! Resources: 2 added, 0 changed, 2 destroyed.

Outputs:

Apache-Webserver-Public-URL = "http://54.163.18.216"

## Cloud Computing Page: Graphical user interface, website Description automatically generated

## Graphical user interface, website Description automatically generated

## EC2 Instances: (Tons because I had an encrypted ssh key)

Graphical user interface, application, table

Description automatically generated  
Graphical user interface, application, email

Description automatically generated

## SSH:

Graphical user interface, text

Description automatically generated