Terraform .8 changes

Hello! And welcome back to the Terraform and Ansible for AWS Course on Linux Academy!

In the time since I have released this course, Terraform has upgraded from version .7 to .8. There are a few exciting changes with this version, such as the Terraform Console! But the change that most affects this project is the inclusion of “here documents”. These HEREDOCS were delimited by the letters EOF in our script and were used to instruct Bash to interpret the strings that followed it as literal, including newlines in the strings.

Previously, in version .7, Terraform interpreted all newlines in the code as newlines, now Terraform requires HEREDOC delimiters, just as Bash does, to interpret newlines in strings.

To allow our code to work properly, we must enclose these sections of code in other HEREDOC delimiters to instruct Terraform to interpret those as literal since Terraform now doesn’t interpret newlines as literal.

There are two areas in the script that requires this, one is in the “local-exec” provisioner code for the dev instance here

|  |
| --- |
| provisioner "local-exec" { |
|  | command = "cat <<EOF > aws\_hosts |
|  | [dev] |
|  | ${aws\_instance.dev.public\_ip} |
|  | [dev:vars] |
|  | s3code=${aws\_s3\_bucket.code.bucket} |
|  | EOF" |
|  | } |

Terraform gets confused by the usage of EOF here, since it doesn’t match the proper format it looks for and causes a script error. To fix this, we use:

336 provisioner "local-exec" {

337 command = <<EOP

338 cat <<EOD > aws\_hosts

339 [dev]

340 ${aws\_instance.dev.public\_ip}

341 [dev:vars]

342 s3code=${aws\_s3\_bucket.code.bucket}

343 EOD

344 EOP

345 }

As you can see, I used different letters to delimit each section to prevent the script from getting confused, and I also removed the quotes around the script as the HEREDOC interprets as literal, removing the need for quotes.

The other area of the script that we use a HEREDOC is when creating the AMI,

|  |
| --- |
| provisioner "local-exec" { |
|  | command = "cat <<EOF > userdata |
|  | #!/bin/bash |
|  | /usr/bin/aws s3 sync s3://${aws\_s3\_bucket.code.bucket} /var/www/html/ |
|  | /bin/touch /var/spool/cron/root |
|  | sudo /bin/echo '\*/5 \* \* \* \* aws s3 sync s3://${aws\_s3\_bucket.code.bucket} /var/www/html/' >> /var/spool/cron/root |
|  | EOF" |
|  | } |
|  | } |

I have included the corrected code for the local provisioner here:

395 provisioner "local-exec" {

396 command = <<EOF

397 cat <<EOT > userdata

398 #!/bin/bash

399 /usr/bin/aws s3 sync s3://${aws\_s3\_bucket.code.bucket} /var/www/html/

400 /bin/touch /var/spool/cron/root

401 sudo /bin/echo '\*/5 \* \* \* \* aws s3 sync s3://${aws\_s3\_bucket.code.bucket} /var/www/html/' >> /var/spool/cron/root

402 EOT

403 EOF

404 }

405 }

Now, if you’ve made those changes, the rest of the script should be fine and you can Terraform Apply to deploy the infrastructure!