Thank you for making an application to our DevOps team.

We understand your time is precious, but as discussed we ask each applicant to take on our small challenges. There is no right or wrong approach and we're certainly not expecting war and peace, We would expect no more than 30 minutes per challenge, if at the end of the time you haven’t completed don’t worry just send us what you have. (Upload to a GIT repository)

## Challenge #1

A 3 tier environment is a common setup. Use a tool of your choosing/familiarity create these resources. Please remember we will not be judged on the outcome but more focusing on the approach, style and reproducibility.

## Solution Details:

## I have uploaded the solution to the below mentioned GitRepo:

## https://github.com/AmrutaJakhadi/DevOpsExcersize\_KPMG/tree/main/Q1

## There is a scope for improvement in terraform scripts. Those can be enhanced to move all variables to separate variable files either at each module level or a single consolidate vars.tf file. It will help to update value of any variable in future if needed.

## File names of scripts are self-explanatory. Though the solution is not completely implemented and tested but I have applied all my knowledge of AWS services and Terraform Scripting. If given a chance to explain and implement I will try to complete it.

## Challenge #2

### Summary

We need to write code that will query the meta data of an instance within aws and provide a json formatted output. The choice of language and implementation is up to you.

### Bonus Points

The code allows for a particular data key to be retrieved individually

### Hints

* [Aws Documentation](http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-instance-metadata.html)
* [Azure Documentation](https://docs.microsoft.com/en-us/azure/virtual-machines/windows/instance-metadata-service)
* [Google Documentation](https://cloud.google.com/compute/docs/storing-retrieving-metadata)

## Solution Details:

<https://github.com/AmrutaJakhadi/DevOpsExcersize_KPMG/fetch_metadata_Q2.py>

Output: https://github.com/AmrutaJakhadi/DevOpsExcersize\_KPMG/ Output\_Q2.jpg

## Challenge #3

We have a nested object, we would like a function that you pass in the object and a key and get back the value. How this is implemented is up to you.

### Example Inputs

object = {“a”:{“b”:{“c”:”d”}}}

key = a/b/c

object = {“x”:{“y”:{“z”:”a”}}}

key = x/y/z

value = a

### Hints

We would like to see some tests. [A quick read to help you along the way](https://hexdocs.pm/elixir/master/Kernel.html#get_in/2)

We would expect it in any other language apart from elixir.

Again thank you for spending your precious time on our challenge.

## Solution Details:

I have scripted the solution in Python.

<https://github.com/AmrutaJakhadi/DevOpsExcersize_KPMG/getval_nestedobject_Q3.py>

Output: https://github.com/AmrutaJakhadi/DevOpsExcersize\_KPMG /Output\_Question3.jpg