**Technical Challenge**

We understand your time is precious, but as discussed, we ask each applicant to take on our small challenges.

(Answers should be uploaded to a public GIT repository – ensuring there is nothing KPMG sensitive in the test below - there is no need for anything to be)

There is no right or wrong approach and we're certainly not expecting war and peace 😊.

**Challenge #1**

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

**Files for Solution to challenge 1.**

**1.3-Tier Architecture.pptx ,2. AppGateway.json ,3. Virtual\_Network.json, 4. AzureSQL.json,**

**5.KeyVault.json ,6. TrafficManager.json, 7.VM.json ,8. LoadBalancer.json**

**Challenge #2**

We need to write code that will query the meta data of an instance within AWS or Azure or GCP 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 (<https://docs.aws.amazon.com/>)

·         Azure Documentation (<https://docs.microsoft.com/en-us/azure/?product=featured>)

·         Google Documentation (<https://cloud.google.com/docs>)

**Files for Solution to challenge 2.**

**Query\_Metadata.ps1**

**Challenge #3**

We have a nested object. We would like a function where you pass in the object and a key and get back the value.

The choice of language and implementation 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.*

**Files for Solution to challenge 3.**

**KeyValue.ps1**

[*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.*

**Once this has been completed, please send us the publicly accessible Github link, and be prepared to present this to the panel in the next round of interview.**