Challenge-2:

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

Answer/Output-1: **Code snippet in Python that uses the Azure SDK for Python to extract metadata of an Azure Virtual Machine Scale Set (VMSS) and outputs the metadata in JSON format:**

Cloud provider	: **Microsoft Azure**
Resource provider	: **Python & Azure SDK**
Prog.Language	: **Python**
Pre-reqs	: azure-identity and azure-mgmt-compute packages to be installed *(pip install azure-identity azure-mgmt-compute)*

Brief summary:

The below code uses the Azure SDK to authenticate using the default Azure credentials and query & retrieve the Azure Virtual Machine Scale set (VMSS) metadata. It extracts relevant metadata properties from the VMSS object and stores them in a dictionary.

Finally, it converts the metadata dictionary to JSON format using the **json.dumps()** function and prints the JSON output.

We can further customize the code to extract additional metadata properties (or) perform specific operations with the VMSS metadata as needed for reference.

Python Code:

```
from azure.identity import DefaultAzureCredential

from azure.mgmt.compute import ComputeManagementClient

import json


# Azure subscription ID

subscription_id = "<GoodLifeMedicals_Dev>"


# Resource group name and VMSS name

resource_group_name = "<GLM_DEV_RG_01>"

vmss_name = "<USE1-VD-VMSS-01>"


# Create an instance of DefaultAzureCredential class for authentication

credential = DefaultAzureCredential()
```

```
# Create a ComputeManagementClient using the credentials and subscription ID
compute_client = ComputeManagementClient(credential, subscription_id)

# Get VMSS metadata
vmss = compute_client.virtual_machine_scale_sets.get(resource_group_name, vmss_name)

# Extract relevant metadata from VMSS
metadata = {
    "id": vmss.id,
    "name": vmss.name,
    "location": vmss.location,
    "sku": vmss.sku.name,
    "capacity": vmss.sku.capacity,
    "virtual_machine_profile": vmss.virtual_machine_profile,
    # Add more metadata properties as needed
}

# Convert metadata to JSON format
metadata_json = json.dumps(metadata, indent=4)

# Output the metadata in JSON format
print(metadata_json)
```