Lab 3: Azure Storage Account & Locks

Objective

1. Create an Azure Storage Account
2. Remove the Resource lock
3. Create an Azure Storage Account with jobs.

Note:

1. Steps to log into VM (Each participant will have a separate user/pwd)
    a. Open in a private window https://training.datacouch.io/pluralsight
    b. Enter the provided username and password.

    All the following steps are to be done within the Virtual Machine.

    c. Steps to Log into Azure Portal (4-5 participants will be in each group)
        i. Go to https://portal.azure.com
        ii. Login with the supplied credentials (username and password).
            1. Each group has a unique integer for their login [1-4] eg. **usergroup[1-4]** that will remain same for the duration of the course.
            2. Complete username and Password will be provided in the class.
            3. Each usergroup has an associated resource group which is **rg-usergroup[1-4]**

Section 1: Create an Azure Storage Account

Steps

1. Login into the Virtual Machine
2. On the GitHub portal, go to the repo that you created in Lab1. You would need access to the Secret and variable that you have created in that repo. If you don't have that, please complete Lab1 till the portion of creating the Secret and variable.
3. Create a new file under ./github/workflows/ and name it **"azurestorageaccountv1.yml"** and copy and paste the following code.

```
on: workflow_dispatch

name: AzureStorageAccountv1

jobs:
  azure-github:
    runs-on: ubuntu-latest
    steps:
      - name: Log in with Azure with RG SP with contri access
        uses: azure/login@v1
        with:
          creds: '${{ secrets.AZURE_CREDENTIALS }}'


      - name: Running a sample AZ CLI command to create a Storage Account
        uses: azure/CLI@v1
        with:
          azcliversion: latest
          inlineScript: |
            echo "Create a storage account"
            az storage account create -n "sa"${{github.run_id}} -g ${{vars.RG_NAME}} -l eastus --sku Standard_LRS --kind StorageV2
```

4. We have configured this workflow to run manually. Click on Actions again. Then click on the workflow name **"AzureStorageAccountv1"** and click on **"Run workflow"**.
5. Wait for the workflow to start the job and it should fail. Review the error from the logs.

Section 2: Remove the resource lock

Steps

1. Login into the Virtual Machine
2. Login into Azure Portal
3. Type **"Resource Groups"** on the search bar and select "Resource Groups" from dropdown.
4. Select/Click your resource group
5. Click on "**Locks**" from the left pane.
6. Click on **"Delete"** to delete the ReadOnlyLock.
7. Go back to your GitHub repo and run the **AzureStorageAccountv1** workflow again. Wait for it to finish
8. Go to Azure portal and your resource group, you should see a storage account created under the Resource group.

Section 3: Create an Azure Storage Account with jobs.

Steps:

1. Go to your GitHub repo.
2. Go to settings and click on **"secrets and variables".** Click on **Actions**.
    a. On the right side, click on **"New repository secret"** .

i. Name: **AZURE_MAIN_CREDENTIALS**
ii. Secret: <Please ask for the secret when you reach this step>
iii. Paste the entire JSON and click on **“Add Secret”**

1. Create a new file under ./github/workflows/ and name it **“azurestorageaccountv2.yml”** and copy and paste the following code.

```
on: workflow_dispatch
name: AzureStorageAccountv2

jobs:
  main-login-and-remove-lock:
    runs-on: ubuntu-latest
    steps:
      - name: Log in with Azure Main Account
        uses: azure/login@v1
        with:
          creds: '${{ secrets.AZURE_MAIN_CREDENTIALS }}'

      - name: Running a sample AZ CLI command to unlock lock
        uses: azure/CLI@v1
        with:
          azcliversion: latest
          inlineScript: |
            echo "Delete the read only lock"
            az group lock delete -n ReadOnlyLock -g ${{ vars.RG_NAME }}

      - name: Logging out of AZ main account
        uses: azure/CLI@v1
        with:
          azcliversion: latest
          inlineScript: |
            echo "logging out..."
                az logout
                az cache purge
                az account clear

  create-storage-account:
    needs: main-login-and-remove-lock
    runs-on: ubuntu-latest
    steps:
      - name: Log in with Azure with RG SP with contri access
        uses: azure/login@v1
        with:
          creds: '${{ secrets.AZURE_CREDENTIALS }}'

      - name: Running a sample AZ CLI command to create a Storage Account
        uses: azure/CLI@v1
        with:
          azcliversion: latest
          inlineScript: |
            echo "Create a storage account"
            az storage account create -n "sa"${{github.run_id}} -g ${{vars.RG_NAME}} -l eastus --sku
Standard_LRS --kind StorageV2

      - name: Logging out of AZ account
        uses: azure/CLI@v1
        with:
          azcliversion: latest
          inlineScript: |
            echo "logging out..."
                az logout
                az cache purge
                az account clear

  main-login-and-enable-lock:
    needs: create-storage-account
    runs-on: ubuntu-latest
    steps:
      - name: Log in with Azure Main Account
        uses: azure/login@v1
        with:
          creds: '${{ secrets.AZURE_MAIN_CREDENTIALS }}'

      - name: Running a AZ CLI command to lock
        uses: azure/CLI@v1
        with:
          azcliversion: latest
          inlineScript: |
            echo "Create the read only lock"
            az group lock create --lock-type ReadOnly -n ReadOnlyLock -g ${{ vars.RG_NAME }}

      - name: Logging out of AZ main account
        uses: azure/CLI@v1
        with:
          azcliversion: latest
          inlineScript: |
            echo "logging out."
                az logout
                az cache purge
                az account clear
```

2. We have configured this workflow to run manually. Click on Actions again. Then click on the workflow name “**AzureStorageAccountv2**” and click on **“Run workflow**”.
3. Wait for the workflow to start the jobs and review the 3 jobs. Once the jobs are finished, you will see both the Storage Account and the lock on your resource group.

End of Lab.