Lab 5: Azure Container Registry

Objective

1. Provision an Azure Container Registry
2. Push an image to the registry
3. Login to ACR through Github Repo

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: Provision an Azure Container Registry

Steps

1. Login into the Virtual Machine
2. Login into Azure Portal
3. Type **"Container registries"** on the search bar and select "Container registries" from dropdown.
4. Click on **"+Create"** button
5. **Basics Tab**
    a. Select the resource group from the dropdown.
    b. Give unique name to ACR as **"learnacr"+"group number"+"participant id"** add your group number and instance as suffix e.g. if your group number is 4 and participant id is 22, name the acr as **"learnacr402"** .
    c. Location: Choose **East US**
    d. SKU: Select **"Standard"**

e. Click on **"Next: Networking"**

6. **Networking Tab**
    a. Don't change the defaults and click on **"Next: Encryption"**
7. **Encryption Tab**
    a. Don't change the defaults and click on **"Review + Create"**
8. **Review+Create Tab**
    a. Let the validation run and pass.
    b. Click on **"Create"** and wait for the deployment to complete.
    c. Click on **"Go to resource"**. This will take you to the overview page of the newly created registry.
    d. Copy the value of **"Login server"**
9. **Access Keys**
    a. On the registry, click on Access keys under Settings.
    b. Enable **"Admin User"** and copy the **value of password**

Section 2: Push an image to the registry

Steps

1. Login into the Virtual Machine
2. Open "VS Code Terminal" or "Terminal"
3. Type **"az acr import -n <name of your acr> --source docker.io/library/nginx:latest -t nginx:mycopy".**
4. Once completed, go to Container registry on Azure portal and click on **"Repositories"**. You should see "nginx" under list of repositories.

Section 3: Login to ACR through Github Repo

Steps

1. Login into the Virtual Machine
2. Go to you GitHub repo
3. Go to settings and click on **"secrets and variables".** Click on **Actions**.
    a. On the right side, click on **"New repository secret"** .
        i. Name: **ACR_PWD**
        ii. Secret: Paste the value of the password that you copied from previous step.
4. Go to Actions and click on **"New workflow"** and click on **"set up a workflow yourself"**
5. Rename the file as **"Azureacr.yml"** and copy and paste the below contents and commit and save the file.
   Please change the name of the registry and username marked in red.

```yaml
on: [workflow_dispatch]

name: AzureACR

jobs:
  azureacr:
    runs-on: ubuntu-latest

    steps:
      - name: Login to Azure
        uses: azure/login@v1
        with:
          creds: '${{ secrets.AZURE_CREDENTIALS }}'

      - name: ACR Login
        uses: docker/login-action@v2
        with:
          registry: <acr name>.azurecr.io
          username: <acr name>
          password: ${{ secrets.ACR_PWD }}


      - name: Show repos from ACR
        uses: azure/CLI@v1
        with:
          azcliversion: latest
          inlineScript: |
            echo "Show the current Repos"
            az acr list -o table
```

6. We have configured this workflow to run manually. Click on Actions again. Then click on the workflow name "**AzureACR**" and click on **"Run workflow**".

End of Lab.