Setup CI/CD Pipeline for Java MicroServices Application on Azure AKS. Use Azure Devops, Github, K8s ,Terraform, Docker,Docker Hub ,Azure Storage Account, Resource group and required tools

STEPS

1. Create a folder k8s pipeline
2. Copy paste the microservices folder onto it
3. Meanwhile create a project in azure devops
4. Also create a repository in github
5. Push the files in the folder on to the github
6. In the azure, create a pipeline > github>choose the required> choose the repo created >next > create
7. A job will run successful
8. Meanwhile refresh the github and you can see the pipeline created
9. Now in local repo edit the dockerfile and repeat the above procedure and run a job
10. Now for the Java Application to run
11. First connect with github
12. Create kubernet connection ,docker hub connection
13. Meanwhile in Azure Devops (plugins,ssh key,libraries,terraform has to be installed)
14. For ssh key

{# Create Service Account To Create Azure K8S Cluster using Terraform

az login

az ad sp create-for-rbac --role="Contributor" --scopes="/subscriptions/<<azure\_subscription\_id>>"

# Create Public Key for SSH Access

ssh-keygen -m PEM -t rsa -b 4096 # PEM - Privacy Enhanced Mail - Certificate Format RSA- Encryption Algorithm

# ls /Users/rangakaranam/.ssh/id\_rsa.pub

# Get Cluster Credentials

az aks get-credentials --name <<MyManagedCluster>> --resource-group <<MyResourceGroup>>}

1. For Deploying the Java App
2. First Azure (Create resource group,storage account,container)
3. In Azure Devops create a pipeline with the the files provided
4. For K8s

az aks get-credentials --name k8stest\_dev --resource-group kubernetes\_dev

then create pipeline with the files

1. Similarly using Terraform and docker hub
2. Hence you can deploy your application using Azure, Azuredevops, Docker hub ,K8s ,Terraform successfully