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MICROSOFT AZURE WORKSHOP-1

azure.microsoft.com/en-in/free/student/
↳ Try azure for free

- In Azure services are known as resources & ec2 as virtual Machine.
- Availability
- AZ
- Region

Resource Gp : Namespace : Similar to
↳ Free Trial
↳ wRG1
↳ (US) East US
>>Create

wRG1
↳ Add
↳ compute
↳ Virtual machine

Instance details
↳ VM name: os1
↳ Region: East US
↳ Availability option: AS

- Availability zone: we can create replicas in diff. AZ.
- Availability Set: To lessen the chance of creating the os in same racks we tell azure to launch them in diff. racks.

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>Create new (AS)
L Name : myaset
L Fault Domain : 3
• Azure gives only atmost 3 OS with A.S
L update domain : 20
• same with update domain

L Image : RHEL8
L Size : B1s
L Auth type : ~~ssh~~ Password
uname : vimal
pass : ____
conf. : ____
L Pub inbound traffic : ~~All traffic~~ ~~SSH~~ Allow selected port
Select inbound port : ssh(22)

>Disk
L OS disk type : Premium SSD
L encryption type : (Default) encryp at-rest

L ws-Vnet (vnet)
L subnet : lab1 (11.0.0.0/24)
L public ip : os1_ip

>> Next : management
>> Next :

launch the vm.

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wincmd

ssh -l nimal 13.68.169.229
↑user ↑pup ip

sudo su - root
rpm -q httpd
↳ installed bec of custom script

free -m
↳ shows memory(RAM)
lscpu
↳ shows cpus
lsblk
↳ shows storage

Home > [illegible] > OS1 > Security Rules > Inbound Rule

Home > [illegible] > OS1
↳ Networking (search)
» Add inbound rule
° we can add rules
(Add Http)

phel

firewall-cmd --list-services
↳ ssh
no http
firewall-cmd --add-service=http

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vi /var/www/html/index.html
<h1>Welcome to rack2</h1>

name> LWRG1
launch one more VM.
↳ VM name: OS2
↳ same region as OS1
↳ availability set.
↳ myaset (AS)

Vnet: LWRG1-custom-vnet
Subnet: 11.0.1.0/24 (Lab1)
(same subnet as OS1)

Select inbound port
↳ ssh
↳ http.

Custom data:
#!/bin/bash
yum install wget -y
echo 'welcom to rack2' >

systemctl enable httpd --now
firewall-cmd --add-service=http
>create.

Load balancer
↳ myLb
↳ Public
↳ myLb1 (Lb ip name)

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Az : zone-redundant
> create.

Add backend pool
ipe ea.
le name : mybackendpool

* we can also use azure through cli
b URL : or cli cmd install.
or through web shell

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MICROSOFT AZURE WORKSHOP-2

- Public & Private cloud
  - Private cloud
    - only accessible by employees
    - eg: openstack
  - accessible by all, publically available

win cmd
Azure cli
az login
az vm list
  - json format
az vm list --output table
  - lists in tabular format

- Kubernetes service by azure : AKS
  - hybrid kind of setup

x
aks (search)
  - kubernetes services.

+ Add
  - Add K8s cluster

win cmd
az group create -l eastus
-n lwgrp1

az aks create -g lwgrp1 -n
kubecluster1 --node-count 2
--generate-ssh-keys
--enable-addons monitoring
- Incorrect Padding
- issue is in python.

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- If in the path if we name space it will give error. Either remove space or rm (--generate-ssh-keys) & generate manually.

ssh-keygen -f lw-ssh

az aks create -g lwgrp1 -n kubecluster1 --node-count 2 --enable-addons monitoring --ssh-key-value lw-ssh.pub

mkdir Desktop/Azure_kube

az aks install-cli --install-location=. Desktop/Azure_kube

↳ If failed. Run as Admin

az aks get-credentials --name kubecluster1 --resource-group lwgrp1

↳ makes our local as a k8s client

kubectl get nodes

↳ master node is not listed bec it is managed by az.

kubectl get pods

kubectl create deploy web1 --image=nimal13

kubectl scale deployment web1 --replicas=5

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kubectl expose deploy web1
--port=80 ~~--type=nodeport~~
--type=LoadBalancer
↳ ~~don't~~ don't use your internal LB. Use LB by Azure.

kubectl get svc
↳ kubernetes clusterIP
↳ web1 load balancer

curl <git_link>

kubectl apply -f my.yml

- PAAS : Azure App service (web app)

create RG : wRGapp
+Add : ~~app service~~ web app
> Create

↳ Instance Details
↳ name: mypyapp
↳ publish: ~~Docker~~ code
↳ os : linux
↳ runtime stack : Python 3.6
↳ region : Central US
↳ App service plan
↳ Create new
↳ myappservice plan

az webapp list --output table
az

Create github repo.
↳ azure-ws-py-code
add .py code

gitbash
git clone <<past repo url>>
cd azure_ws_py_code
vi app.py
>paste example code from azure

vi requirements.txt
Flask >= 1.0, <= 1.1.2

Deployment center
> Go to settings
Src : Github
set the gh acc.
Save

git add .
git commit -m "first".
git push.

· It provides CI/CD like jenkins.
↳ integrated with github

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- We can provide extra storage for our static files like : photos, videos, docs, etc.
- SAAS : blob/S3.

Storage Account.
- Myimgstorage (name)
- region : us east
- performance : Stand.
- acc. kind : blobstorage

upload img.
- copy img url (unique)
- use this url in the py code.

- we can also integrate it with db.

Database
- Types → column | SQL
  - Graph | NO cassandra
  - etc ——.

based on used cases.

Azure Active Dir
- we can create multiple accounts
- similar to IAM in aws.

Identity
- name : minal
- password : ——

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Attach the roles
Role : ___

Access Control (IAM)
↳ view access
↳ here we can view and add power to the users.