List of Assignments

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Assignment No.1

Title-

Install Google App Engine. Create hello world app and other simple web applications using python/java

Steps-

a. Download python from-https://www.python.org/downloads/

b. Download Google Cloud SDK from- https://cloud.google.com/sdk/docs/install#windows

c. Launch the installer and follow the prompts

d. Perform initial setup by running *gcloud init*

e. Grant authorization to Cloud SDK tools to access Google Cloud

f. Write python file with hello world statement

g. Write app.yaml configuration file

h. Open the shell

i. Run the application with the following command in shell:

j. *cmd> py google-cloud-sdk\bin\dev_appserver.py <path to the directory where application reside>*

k. Open the web browser and type *http://localhost:8000*

Video Link-

https://www.youtube.com/watch?v=7UtLfGnmh1U

Assignment No.2

Title-

Use GAE launcher to launch the web applications

Steps-

a. Already you have installed google cloud SDK and python
b. Write the configuration file
c. Write the web application file
d. Deploy and run it

Video Link-

https://www.youtube.com/watch?v=KrN7yg2Kqxo

Assignment No.3

Title-

Find a procedure to transfer the files from one virtual machine to another virtual machine

Steps-

a. Download and install Oracle's Virtual Box- https://www.virtualbox.org/wiki/Downloads
b. Download Ubuntu VMDK Image-

   https://app.vagrantup.com/bento/boxes/ubuntu-18.04

c. Launch Virtualbox and create a new VM
d. Click on new and mention the Name and the machine folder along with the Type and Version of the Machine to be created.
e. Assign memory size for our VM (1024 MB sufficient for now).
f. Select the option *Use an existing virtual hard disk file* and locate the downloaded VMDK image and create VM
g. Now we have to create a NAT Network so go to *File -> Preferences -> Network -> Add a New NAT Network (Click on +)*
h. Right click and edit the Network name and CIDR if needed.
i. Repeat the process of launching the VM for 2 instances
j. Now go to the setting, go to the network setting and change the adapter to NAT Network and select the NAT Network you made
k. Launch the VM now
l. Install the net-tools to know the IP's of the instance
m. create a file and write something into it

n. If your file is on the VM with IP **172.168.2.4** and the second VM's IP is **172.168.2.5**.

o. Transfer the file using **SCP**

p. $ scp tranfer.txt vagrant@172.168.2.5:/home/vagrant

q. Check for the file in the Second VM under the **/home/vagrant** directory

Video Link-

https://www.youtube.com/watch?v=0MaS0nZCTZc

Assignment No.4

Title-

Find a procedure to launch virtual machine using try stack (Online Open stack Demo Version)

References-

a. https://www.amazonaws.cn/en/getting-started/tutorials/launch-a-virtual-machine/
b. https://docs.microsoft.com/en-us/azure/virtual-machines/windows/quick-create-portal
c. https://cloud.google.com/compute/docs/instances/create-start-instance

Steps-

a. Launch an Amazon EC2 Instance
b. Configure your Instance
c. Connect to your Instance
d. Terminate Your Instance

Video Link-

https://www.youtube.com/watch?v=i-Od-CELQoI

Assignment No.5

Title-

Design and deploy a web application in a PaaS environment

Steps-

a. Login to the AWS console

b. Find for AWS Amplify in the services

c. Get Started with Amplify service

d. Click on Host a Web App

e. Then choose to launch it with Github and authenticate your GitHub account for the same

f. After that choose the Repository containing your source code

g. Then Launch the application with the default configurations provided by AWS Amplify

Video Link-

https://www.youtube.com/watch?v=12Thoc5MsF8

Assignment No.6

Title-

Design an Assignment to retrieve, verify, and store user credentials using Firebase Authentication, the Google App Engine standard environment, and Google Cloud Data store

Steps-

a. Install required software's as per the requirement
b. Install all the packages which are needed for firebase (firebase-admin , express etc)
c. And follow the steps as per the references-

References-

https://firebase.google.com/docs/reference/admin
https://firebase.google.com/docs/auth/admin
https://firebase.google.com/docs/admin/setup
https://cloud.google.com/appengine/docs/standard/python/configuration-files
https://livebook.manning.com/book/google-cloud-platform-in-action/chapter-11/