QUESTION 1

Machine list

Zeus (FE-75-2B-2D-A9-61) = 192.168.x.2 = Ubuntu 20.04 w/ GUI (2GB)

Hades (BE-F1-79-D7-0F-28) = 192.168.x.3 = Ubuntu 20.04 (1GB)

Poseidon (BE-7D-68-B3-72-7C) = 192.168.x.4 = Windows 2016 Server (4GB)

Apollo (DA-9B-E1-27-98-13) = 192.168.x.5 = Ubuntu 20.04 (1GB)

You will create a tar.bz2 file named wvulogin.tar.bz2. Replace wvulogin with your wvulogin name. All files should untar into a directory named wvulogin/. For each machine there should be a subdirectory for that machine name. For example, files for zeus would be located at wvulogin/zeus.

You must install the machines in the following order. Poseidon, Zeus, Hades, Apollo. All ansible scripts must be run from zeus and use ssh.

Sanity Checks [4/4]

[2/2] PDFs are PDFs

[2/2] Correct Directory structure used

**Zeus [18/18]**

[2/2] Fully automated install (Install Poseidon first). Provide a screenshot of the fully automated install in progress

**In screenshots.pdf**

[2/2] Install ansible. Provide a screenshot of CLI command to install ansible.

**In screenshots.pdf**

[2/2] Add a gui environment. Provide a screenshot of the GUI environment.

**In screenshots.pdf**

[2/2] Add cybe466grader account and set a password. Provide ansible code.

  - name: Add cybe46grader

    user:

      name: cybe466grader

      password: '$6$r9ATy2aj$KIvT4YCKZlRKJSiWnF4NMsXmOizBXC1P11.JwyCeXrcYh3fBdluhi.p2JFy2rvVjzpiTD9jaNHR.p4RQd.NMm.'

      groups:

        - sudo

      state: present

      shell: /bin/bash

[2/2] Give cybe466grader account administrative privileges. Provide ansible code

groups:

        - sudo

      state: present

      shell: /bin/bash

[2/2] Change loud password. Provide ansible code.

- name: Change user password

    user:

      name: loud

      update\_password: always

      password: '$6$mO.q/2M1NUb$bU0zPRwih56kU00QjtiFSLO9uMoqQa6YedJutY0NjUYWPJ6wqGzYh6/GOsAVYyRauh.Zyi6xVlweLzxAAmIg51'

[4/4] Proper documentation on how to run ansible code. Provide at least one screenshot of something executing with description.

**In screenshots.pdf and readme.pdf**

[2/2] Screenshot of web browser showing URL on windows server where the user-data file exists.

**In screenshots.pdf**

What to submit?

zeus/ansible = All ansible code

zeus/README.pdf = Documentation on how to run ansible code

zeus/screenshot.pdf = All screenshots in a single PDF w/ description

**Hades [26/26]**

[2/2] Fully automated install (Install Poseidon first). Provide a screenshot of the fully automated install in progress

**In screenshots.pdf**

[2/2] Configure hostname. Provide full ansible code

  - name: Set the hostname

    hostname:

      name: hades

[2/2] Change loud account password. Provide full ansible code.

  - name: Change user password

    user:

      name: loud

      update\_password: always

      password: '$6$mO.q/2M1NUb$bU0zPRwih56kU00QjtiFSLO9uMoqQa6YedJutY0NjUYWPJ6wqGzYh6/GOsAVYyRauh.Zyi6xVlweLzxAAmIg51'

[4/4] Configure a virtual host for www. Make the document root be /srv/www-data/www. Provide full ansible code.

  - name: Install apache

    apt: name=apache2 update\_cache=yes state=latest

  - name: Create document root

    file:

      path: "/srv/www-data/www"

      state: directory

      owner: "loud"

      mode: '0755'

  - name: Copy www config file

    copy:

      src: "www.wag0004.internal.conf"

      dest: "/etc/apache2/sites-available/www.wag0004.internal.conf"

  - name: Enable http site

    shell: /usr/sbin/a2ensite www.wag0004.internal

[4/4] Enable https. Make it use the same document root as the www virtual host. Provide full ansible code.

  - name: Copy https config file

    copy:

      src: "default-ssl.conf"

      dest: "/etc/apache2/sites-available/default-ssl.conf"

  - name: Copy apache2.conf file

    copy:

      src: "apache2.conf"

      dest: "/etc/apache2/apache2.conf"

  - name: enabled ssl

    apache2\_module: name=ssl state=present

  - name: Enable https site

    shell: /usr/sbin/a2ensite default-ssl

    notify: Reload Apache

[2/2] Add cybe466grader account and set a password. Provide full ansible code.

  - name: Add cybe46grader

    user:

      name: cybe466grader

      password: '$6$r9ATy2aj$KIvT4YCKZlRKJSiWnF4NMsXmOizBXC1P11.JwyCeXrcYh3fBdluhi.p2JFy2rvVjzpiTD9jaNHR.p4RQd.NMm.'

      groups:

        - sudo

      state: present

      shell: /bin/bash

[2/2] cybe466grader password. Provide full ansible code.

  - name: Add cybe46grader

    user:

      name: cybe466grader

      password: '$6$r9ATy2aj$KIvT4YCKZlRKJSiWnF4NMsXmOizBXC1P11.JwyCeXrcYh3fBdluhi.p2JFy2rvVjzpiTD9jaNHR.p4RQd.NMm.'

      groups:

        - sudo

      state: present

      shell: /bin/bash

[2/2] Give cybe466grader account administrative privileges. Provide full ansible code.

  - name: Add cybe46grader

    user:

      name: cybe466grader

      password: '$6$r9ATy2aj$KIvT4YCKZlRKJSiWnF4NMsXmOizBXC1P11.JwyCeXrcYh3fBdluhi.p2JFy2rvVjzpiTD9jaNHR.p4RQd.NMm.'

      groups:

        - sudo

      state: present

      shell: /bin/bash

[2/2] Add user account named dbremoteuser. Provide full ansible code.

  - name: Add dbremoteuser

    user:

      name: dbremoteuser

      password: '$6$DRV8qmcvWOwC$UT8Y3dCYLAcJ0u.8xJ.jPdAMD7p2XqQv8Zcfhm7K86yCIwuM1fAmj6kSKpOtxExIhqOVmqvQqS9nBGFtNFEGT0'

      state: present

      shell: /bin/bash

[4/4] Proper documentation on how to run ansible code. Provide at least one screenshot of something executing with description.

**In screenshots.pdf and readme.pdf**

What to submit

hades/ansible = All ansible code

hades/README.pdf = Documentation on how to run ansible code

hades/screenshot.pdf = All screenshots in a single PDF w/ description

**Poseidon [28/28]**

Machine list

**Zeus** (FE-75-2B-2D-A9-61) = 192.168.x.2 = Ubuntu 20.04 w/ GUI (2GB)

**Hades** (BE-F1-79-D7-0F-28) = 192.168.x.3 = Ubuntu 20.04 (1GB)

**Poseidon** (BE-7D-68-B3-72-7C) = 192.168.x.4 = Windows 2016 Server (4GB)

**Apollo** (DA-9B-E1-27-98-13) = 192.168.x.5 = Ubuntu 20.04 (1GB)

[2/2] Install Windows 2016 Server Core. Provide screenshot of install with correct IP and hostname logged in as local administrator

[2/2] Add correct dhcp reservation for hades. Powershell.

**Add-DHCPServerReservation -ScopeID 192.168.100.0 -IPAddress 192.168.100.3 -ClientID “BE-F1-79-D7-0F-28” -Description “Hades”**

[2/2] Add correct dhcp reservation for zeus. Powershell.

**Add-DHCPServerReservation -ScopeID 192.168.100.0 -IPAddress 192.168.100.2 -ClientID “FE-75-2B-2D-A9-61” -Description “Zeus”**

[2/2] Add correct dhcp reservation for apollo. Powershell.

**Add-DHCPServerReservation -ScopeID 192.168.100.0 -IPAddress 192.168.100.5 -ClientID “DA-9B-E1-27-98-13” -Description “Apollo”**

[2/2] Add correct A record for zeus. Powershell.

**Add-DNSServerResourceRecordA -Name “zeus” -ZoneName “wag0004.internal” -IPAddress “192.168.100.2” -TimeToLive 01:00:00**

[2/2] Add correct A record for hades. Powershell.

**Add-DNSServerResourceRecordA -Name “hades” -ZoneName “wag0004.internal” -IPAddress “192.168.100.3” -TimeToLive 01:00:00**

[2/2] Add correct A record for poseidon. Powershell.

**Add-DNSServerResourceRecordA -Name “poseidon” -ZoneName “wag0004.internal” -IPAddress “192.168.100.4” -TimeToLive 01:00:00**

[2/2] Add correct A record for apollo. Powershell.

**Add-DNSServerResourceRecordA -Name “apollo” -ZoneName “wag0004.internal” -IPAddress “192.168.100.5” -TimeToLive 01:00:00**

[2/2] Add a CNAME for www that points to hades. Powershell.

**Add-DNSServerResourceRecordCName -HostNameAlias hades.wag0004.internal -Name www -ZoneName wag0004.internal**

[2/2] Install IIS and configure for doing automated linux installations. Powershell.

**Install-WindowsFeature -Name Web-Server -IncludeManagementTools**

[2/2] Add cybe466grader account and set a password. Powershell.

#Add cybe466grader account

Write-Output "Enter a new password:"

$Password = Read-Host -AsSecureString

New-LocalUser "cybe466grader" -Password $Password

Set-LocalUser -Name "cybe466grader" -PasswordNeverExpires $true

[2/2] Give cybe466grader account admin privileges. Powershell.

Add-LocalGroupMember -Group "Administrators" -Member "cybe466grader"

[4/4] Proper documentation on how to run powershell scripts. Provide at least one screenshot of something executing with description.

**In screenshots.pdf and readme.pdf**

What to submit

poseidon/powershell = All powershell code

poseidon/README.pdf = Documentation on how to run powershell scripts

posiedon/screenshot.pdf = All screenshots in a single PDF w/ description

**Apollo [24/24]**

[2/2] Install Ubuntu 20.04 on apollo. (Install Poseidon first). Provide screenshot of fully automated install.

**In screenshots.pdf**

[2/2] Configure hostname. Provide full ansible code

  tasks:

  - name: Set the hostname

    hostname:

      name: apollo

[2/2] Change loud account password. Provide full ansible code.

  - name: Change user password

    user:

      name: loud

      update\_password: always

      password: '$6$mO.q/2M1NUb$bU0zPRwih56kU00QjtiFSLO9uMoqQa6YedJutY0NjUYWPJ6wqGzYh6/GOsAVYyRauh.Zyi6xVlweLzxAAmIg51'

[2/2] Add a user account named dbuser to the system. Ansible

  - name: Add dbuser

    user:

      name: dbuser

      password: '$6$v/k7N3Lnk2Kl$BtVVPtwN708qMtmAgbR4M.BqXjBWy4QKmOqibQXHt9S54/dzKiZ5JmXAyuw82u3KQpNJXJ4eDC790RurZKK2g.'

      state: present

      shell: /bin/bash

[2/2] Install mariadb. Ansible

  - name: Install mariadb

    apt: name=mariadb-server update\_cache=yes state=latest

  - name: start mariadb

    service:

      name: mariadb

      enabled: true

      state: started

  - name: Install pymysql

    apt: name=python3-pymysql update\_cache=yes state=latest

[2/2] Create a database named dbuserdatabase. Ansible

  - name: Create dbuserdatabase

    mysql\_db:

      login\_unix\_socket: /var/run/mysqld/mysqld.sock

      name: dbuserdatabase

      state: present

[2/2] Give access to dbuserdatabase to dbuser on apollo from localhost. Ansible

  - name: Database user dbuser

    community.mysql.mysql\_user:

      login\_unix\_socket: /var/run/mysqld/mysqld.sock

      name: dbuser

      password: dbuser

      priv: '\*.\*:ALL,GRANT'

      state: present

[2/2] Add a cybe466grader account. Ansible

  - name: Add cybe46grader

    user:

      name: cybe466grader

      password: '$6$r9ATy2aj$KIvT4YCKZlRKJSiWnF4NMsXmOizBXC1P11.JwyCeXrcYh3fBdluhi.p2JFy2rvVjzpiTD9jaNHR.p4RQd.NMm.'

      groups:

        - sudo

      state: present

      shell: /bin/bash

[2/2] cybe466grader password. Ansible

  - name: Add cybe46grader

    user:

      name: cybe466grader

      password: '$6$r9ATy2aj$KIvT4YCKZlRKJSiWnF4NMsXmOizBXC1P11.JwyCeXrcYh3fBdluhi.p2JFy2rvVjzpiTD9jaNHR.p4RQd.NMm.'

      groups:

        - sudo

      state: present

      shell: /bin/bash

[2/2] Give cybe466grader account administrative privileges. Ansible.

  - name: Add cybe46grader

    user:

      name: cybe466grader

      password: '$6$r9ATy2aj$KIvT4YCKZlRKJSiWnF4NMsXmOizBXC1P11.JwyCeXrcYh3fBdluhi.p2JFy2rvVjzpiTD9jaNHR.p4RQd.NMm.'

      groups:

        - sudo

      state: present

      shell: /bin/bash

[4/4] Documentation on how to run ansible code.

**In readme.pdf**

What to submit

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apollo/README.pdf = Documentation on how to run ansible code. Provide at least one screenshot of something executing with description.

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