**Networking and Servers**

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**Question 1**

Deploy a website on localhost using either apache2 or nginx. Create a DNS name for this website as ‘awesomeweb’. You can use any web template you want or can write your own simple html code. Write a detailed documentation with steps involved.

**Solution:**

**For Ubuntu with Apache**

Step 1: Install Apache2

* sudo apt update
* sudo apt install apache2

Step 2: Configure Virtual Host

1. Create a configuration file for the virtual host.
   * + sudo nano /etc/apache2/sites-available/awesomeweb.conf

<VirtualHost \*:80>

ServerName awesomeweb

DocumentRoot /var/www/awesomeweb

ErrorLog ${APACHE\_LOG\_DIR}/error.log

CustomLog ${APACHE\_LOG\_DIR}/access.log combined

</VirtualHost>

1. Enable the virtual host:
   * + sudo a2ensite awesomeweb.conf

Step 3: Create DNS entry (Edit Hosts File)

1. Open the hosts file in the editor:
   * + sudo nano /etc/hosts
2. Add the following line:
   * + 127.0.0.1 awesomeweb

Step 4: Prepare Website Files

1. Create the website directory:
   * + sudo mkdir /var/www/awesomeweb
2. Place your website files (HTML) in the /var/www/awesomeweb directory.

Step 5: Restart Apache2

* + sudo service apache2 restart

Step 6: Open <http://awesomeweb> in web browser

* + chrome http://awesomeweb

**For Ubuntu with Nginx**

Step 1: Install Nginx

* sudo apt update
* sudo apt install nginx

Step 2: Configure Virtual Host

1. Create a configuration file for the virtual host.
   * + sudo nano /etc/nginx/sites-available/awesomeweb

server {

listen 80;

server\_name awesomeweb;

root /var/www/awesomeweb;

access\_log /var/log/nginx/awesomeweb.access.log;

error\_log /var/log/nginx/awesomeweb.error.log;

location / {

index index.html;

}

}

1. Enable the virtual host:
   * + sudo ln -s /etc/nginx/sites-available/awesomeweb /etc/nginx/sites-enabled/

Step 3: Create DNS entry (Edit Hosts File)

1. Open the hosts file in the editor:
   * + sudo nano /etc/hosts
2. Add the following line:
   * + 127.0.0.1 awesomeweb

Step 4: Prepare Website Files

1. Create the website directory:
   * + sudo mkdir /var/www/awesomeweb
2. Place your website files (HTML) in the /var/www/awesomeweb directory.

Step 5: Restart Nginx

* + sudo service nginx restart

Step 6: Open <http://awesomeweb> in web browser

* + firefox http://awesomeweb

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**Question 2**

A website can have many subdomains and different services are running on them. Write a Python script to check the status of the subdomains which are up or down. The script should automatically check the status every min and should update it in tabular format on the screen. Write a detailed documentation of it.

**Solution:**