**Docker Compose overview**

Docker Compose is a tool for defining and running multi-container applications. It is the key to unlocking a streamlined and efficient development and deployment experience.

Compose **simplifies the control** of your entire **application stack,** making it easy to manage services, networks, and volumes in a single, **comprehensible YAML configuration file**. Then, with a single command, you create and start all the services from your configuration file.

Compose works in all environments; production, staging, development, testing, as well as CI workflows. It also has commands for managing the whole lifecycle of your application:

**Setup of Docker compose in ubuntu**

**sudo apt install docker-compose -y**

**Write docker-compose file**

Example:

version: '3'

services:

  nginx:

    image: nginx

    ports:

      - "8081:80"

    restart: always #Ensure that container restarts automatically if it stops.

**Run compose file**

**docker-compose up -d**

**sudo docker ps**

**sudo docker-compose down**

version: '3'

services:

  nginx1:

    image: nginx

    ports:

      - "8081:80"

    restart: always

    volumes:

    #  Bind mount

      - ./html:/usr/share/nginx/html

  nginx2:

    image: nginx

    ports:

      - "8082:80"

    restart: always

    volumes:

      # Named Volumes

      - Nginx\_VolData:/usr/share/nginx/html

volumes:

  Nginx\_VolData:

**version: '3'**

**services:**

**my\_nginx:**

**image: nginx:latest**

**ports:**

**- "8081:80"**

**restart: always**

**volumes:**

**- my\_volume:/usr/share/nginx/html**

**networks:**

**my\_network:**

**ipv4\_address: '10.0.0.5'**

**up\_nginx:**

**image: nginx:latest**

**ports:**

**- "8082:80"**

**restart: always**

**volumes:**

**- ./html:/usr/share/nginx/html**

**networks:**

**my\_network:**

**ipv4\_address: '10.0.0.2'**

**networks:**

**my\_network:**

**driver: bridge**

**ipam:**

**config:**

**- subnet: 10.0.0.0/24**

**volumes:**

**my\_volume:**

**Wordpress**

**version: '3'**

**services:**

**wordpress\_front:**

**image: wordpress**

**ports:**

**- "8089:80"**

**depends\_on:**

**- mysql**

**environment:**

**WORDPRESS\_DB\_HOST: mysql**

**WORDPRESS\_DB\_USER: root**

**WORDPRESS\_DB\_NAME: wordpress\_mysql**

**WORDPRESS\_DB\_PASSWORD: "admin\_1234"**

**networks:**

**mysql\_nt:**

**ipv4\_address: "10.0.0.55"**

**mysql:**

**image: "mysql:5.7"**

**environment:**

**MYSQL\_DATABASE: wordpress\_mysql**

**MYSQL\_ROOT\_PASSWORD: "admin\_1234"**

**volumes:**

**- ./mysql:/var/lib/mysql**

**networks:**

**mysql\_nt:**

**ipv4\_address: "10.0.0.45"**

**networks:**

**mysql\_nt:**

**ipam:**

**driver: default**

**config:**

**- subnet: "10.0.0.0/24"**

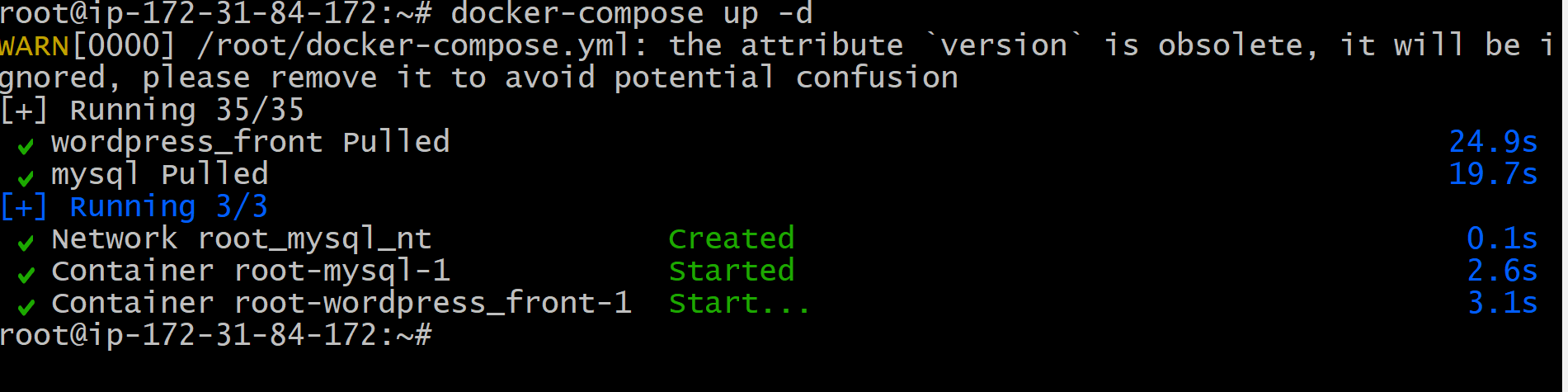
**Run compose file**

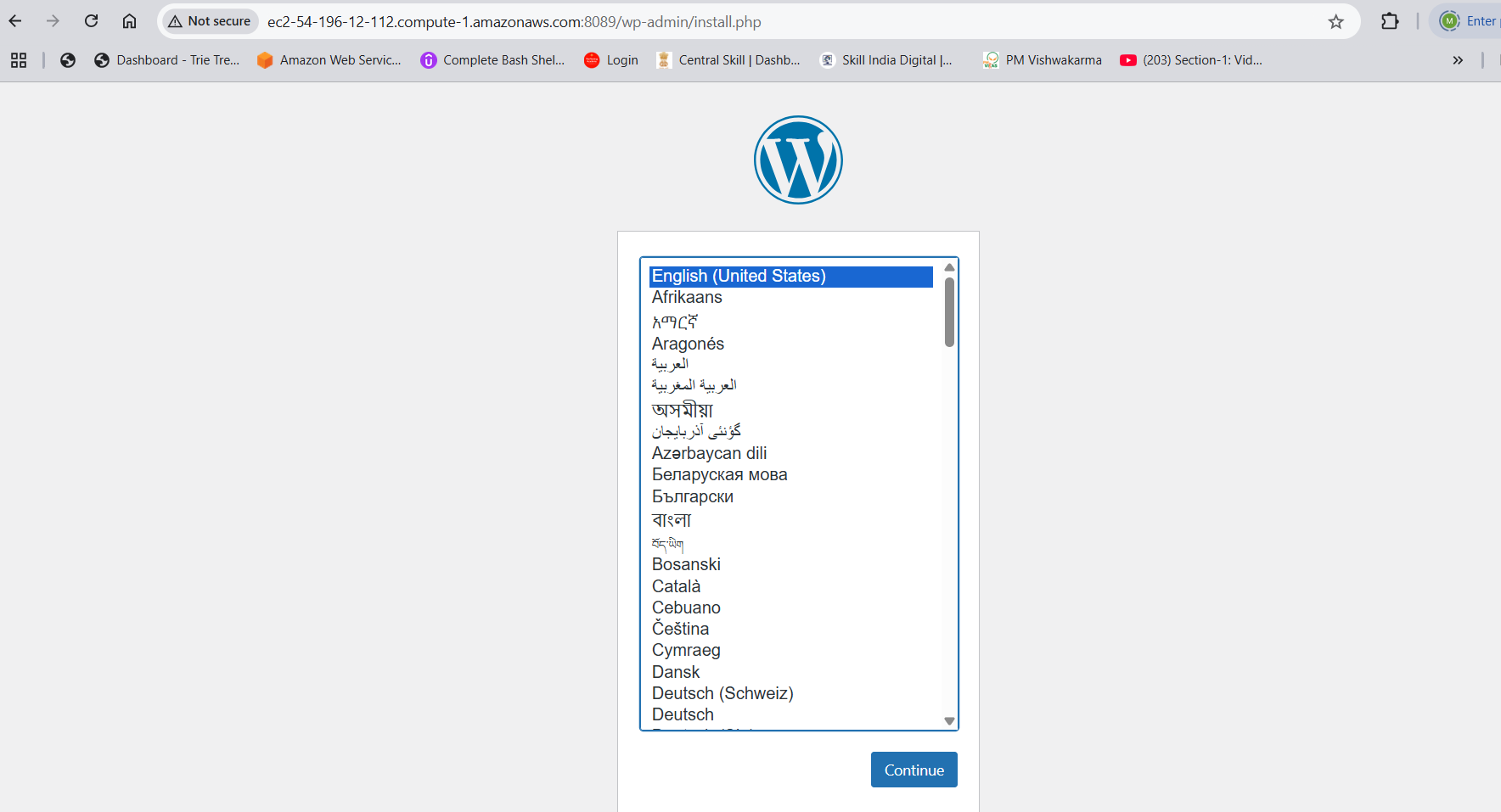
**Compose installation**

**curl -SL https://github.com/docker/compose/releases/download/v2.35.0/docker-compose-linux-x86\_64 -o /usr/local/bin/docker-compose**

**chmod +x /usr/local/bin/docker-compose**

**docker-compose up -d**

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