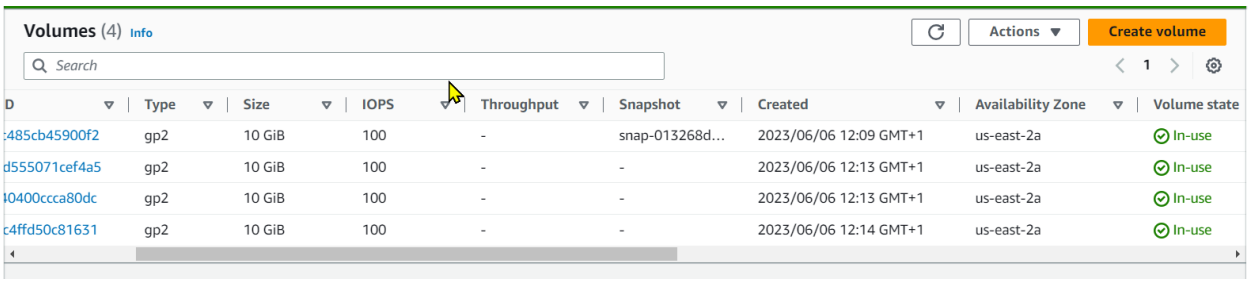
WEB SOLUTION WITH WORDPRESS

Task: Prepare storage infrastructure on two Linux servers and implement a basic web solution using WordPress. WordPress is a free and open-source content management system written in PHP and paired with MySQL or MariaDB as its backend Relational Database Management System (RDBMS).

A: Step 1 — Prepare the Web Server

1. Launch an EC2 instance that will serve as "Web Server". Create 3 volumes in the same AZ as your Web Server EC2, each of 10 GB.



2. Use `df -h` command to see all mounts and free space on your server.

```
xvdh    202:112  0   10G  0 disk
[ec2-user@ip-172-31-1-82 ~]$ df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        4.0M     0  4.0M   0% /dev
tmpfs           385M     0  385M   0% /dev/shm
tmpfs           154M  4.4M  150M   3% /run
/dev/xvda4      9.4G  1.2G  8.2G  13% /
/dev/xvda3      495M  153M  343M  31% /boot
/dev/xvda2      200M  8.0K  200M   1% /boot/efi
tmpfs            77M     0   77M   0% /run/user/1000
[ec2-user@ip-172-31-1-82 ~]$
```

3. Use lsblk utility to view the newly configured partition on each of the 3 disks.

```
The operation has completed successfully.
[ec2-user@ip-172-31-1-82 ~]$ lsblk
NAME    MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
xvda    202:0    0   10G  0 disk
├─xvda1 202:1    0    1M  0 part
├─xvda2 202:2    0  200M  0 part /boot/efi
├─xvda3 202:3    0  500M  0 part /boot
└─xvda4 202:4    0  9.3G  0 part /
xvdf    202:80   0   10G  0 disk
└─xvdf1 202:81   0   10G  0 part
xvdg    202:96   0   10G  0 disk
└─xvdg1 202:97   0   10G  0 part
xvdh    202:112  0   10G  0 disk
└─xvdh1 202:113  0   10G  0 part
[ec2-user@ip-172-31-1-82 ~]$
```

4. Verify that your VG has been created successfully by running sudo vgs

```
[ec2-user@ip-172-31-2-145 ~]$ sudo vgcreate vg-webdata /dev/xvdh1 /dev/xvdg1
/dev/xvdf1
  Volume group "vg-webdata" successfully created
[ec2-user@ip-172-31-2-145 ~]$ sudo vgs
  VG         #PV #LV #SN Attr   VSize   VFree
  vg-webdata   3   0   0 wz--n- <29.99g <29.99g
```

5. Verify that your Logical Volume has been created successfully by running sudo lvs

```
[ec2-user@ip-172-31-2-145 ~]$ sudo lvs
  LV      VG         Attr       LSize  Pool Origin Data%  Meta%  Move Log Cp
y%Sync Convert
  apps-lv vg-webdata -wi-a----- 14.00g

  logs-lv vg-webdata -wi-a----- 14.00g
```

6. Verify the entire setup:

   sudo vgdisplay -v #view complete setup - VG, PV, and LV

   sudo lsblk

```
[ec2-user@ip-172-31-14-251 ~]$ sudo lsblk
NAME                      MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
xvda                      202:0    0   10G  0 disk
├─xvda1                   202:1    0    1M  0 part
├─xvda2                   202:2    0  200M  0 part /boot/efi
├─xvda3                   202:3    0  500M  0 part /boot
└─xvda4                   202:4    0  9.3G  0 part /
xvdf                      202:80   0   10G  0 disk
└─xvdf1                   202:81   0   10G  0 part
  └─webdata--vg-logs--lv 253:1    0   14G  0 lvm  /var/log
xvdg                      202:96   0   10G  0 disk
└─xvdg1                   202:97   0   10G  0 part
  ├─webdata--vg-apps--lv 253:0    0   14G  0 lvm  /var/www/html
  └─webdata--vg-logs--lv 253:1    0   14G  0 lvm  /var/log
xvdh                      202:112  0   10G  0 disk
└─xvdh1                   202:113  0   10G  0 part
  └─webdata--vg-apps--lv 253:0    0   14G  0 lvm  /var/www/html
```

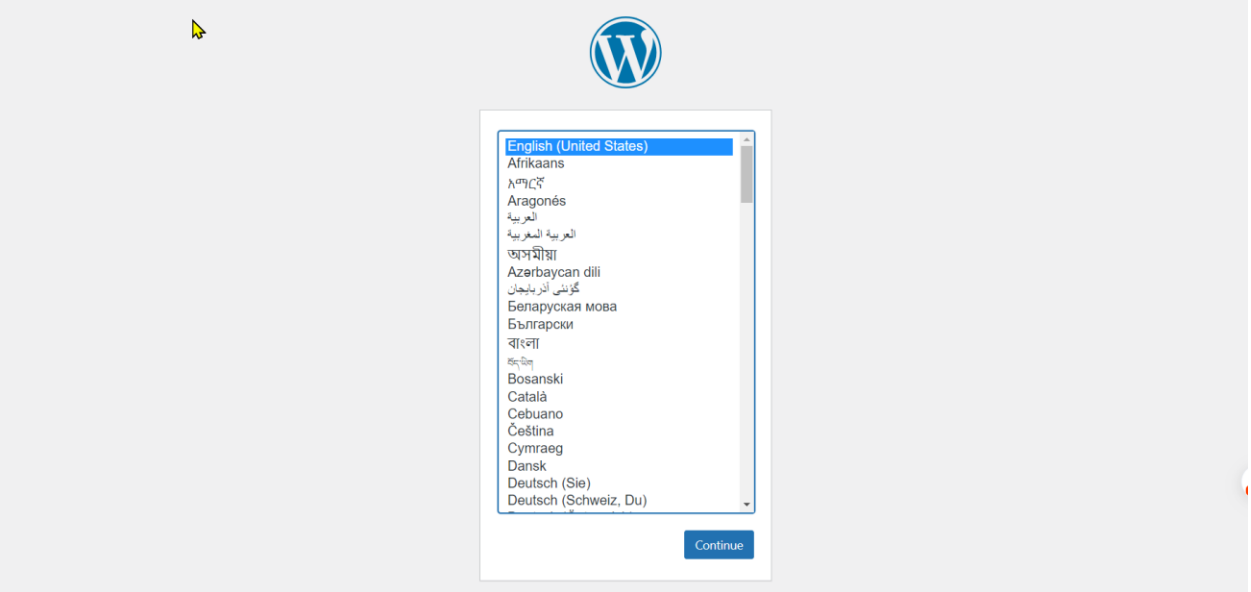
7. Verify your setup by running df -h, output must look like this:

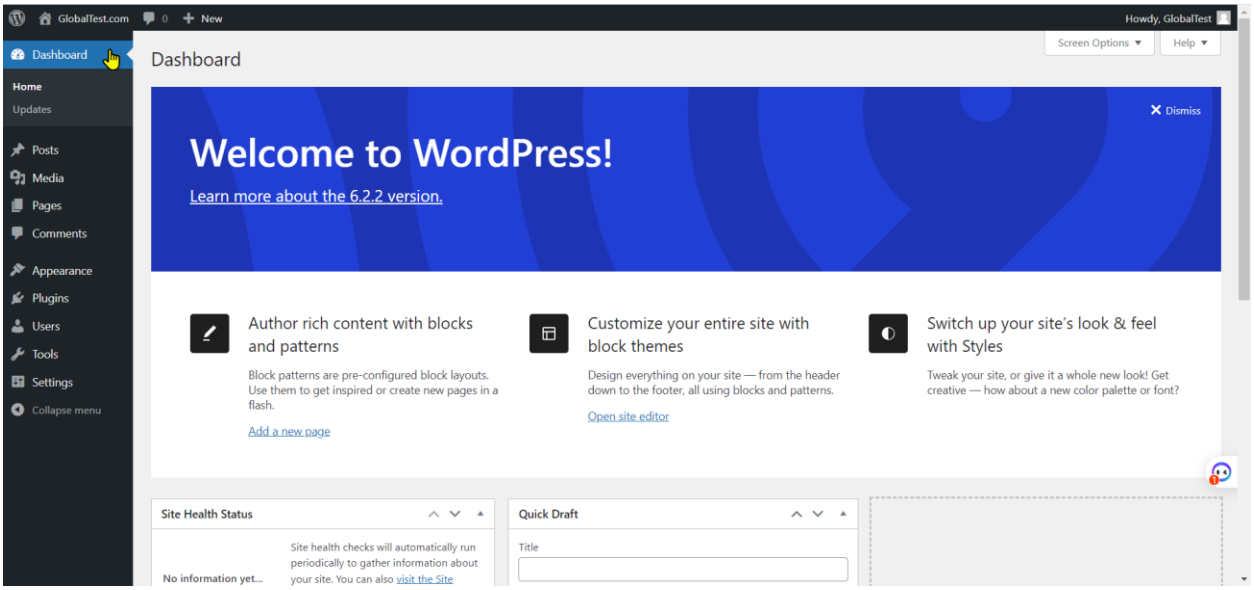
```
[ec2-user@ip-172-31-2-145 ~]$ df -h
Filesystem                      Size  Used Avail Use% Mounted on
devtmpfs                        4.0M     0  4.0M   0% /dev
tmpfs                           385M     0  385M   0% /dev/shm
tmpfs                           154M  4.4M  150M   3% /run
/dev/xvda4                      9.4G  1.3G  8.1G  14% /
/dev/xvda3                      495M  153M  343M  31% /boot
/dev/xvda2                      200M  8.0K  200M   1% /boot/efi
tmpfs                            77M     0   77M   0% /run/user/1000
/dev/mapper/vg--webdata-apps--lv   14G   24K   13G   1% /var/www/html
/dev/mapper/vg--webdata-logs--lv   14G  796K   13G   1% /var/log
[ec2-user@ip-172-31-2-145 ~]$
```

B: Step 2 — Prepare the Database Server

```
[ec2-user@ip-172-31-3-94 ~]$ sudo mount /dev/vg-webdata/db-lv /db
[ec2-user@ip-172-31-3-94 ~]$ df -h
Filesystem                      Size  Used Avail Use% Mounted on
devtmpfs                        4.0M     0  4.0M   0% /dev
tmpfs                           385M     0  385M   0% /dev/shm
tmpfs                           154M  4.4M  150M   3% /run
/dev/xvda4                      9.4G  1.3G  8.1G  14% /
/dev/xvda3                      495M  153M  343M  31% /boot
/dev/xvda2                      200M  8.0K  200M   1% /boot/efi
tmpfs                            77M     0   77M   0% /run/user/1000
/dev/mapper/vg--webdata-db--lv   20G   24K   19G   1% /db
[ec2-user@ip-172-31-3-94 ~]$
```

C: Step 3 — Configure WordPress to connect to remote database.




GlobalTest.com
0
New
Howdy, GlobalTest
Dashboard
Home
Updates
Posts
Media
Pages
Comments
Appearance
Plugins
Users
Tools
Settings
Collapse menu
Dashboard
Screen Options
Help
Dismiss
Welcome to WordPress!
Learn more about the 6.2.2 version.
Author rich content with blocks and patterns
Block patterns are pre-configured block layouts. Use them to get inspired or create new pages in a flash.
Add a new page
Customize your entire site with block themes
Design everything on your site — from the header down to the footer, all using blocks and patterns.
Open site editor
Switch up your site's look & feel with Styles
Tweak your site, or give it a whole new look! Get creative — how about a new color palette or font?
Site Health Status
No information yet...
Site health checks will automatically run periodically to gather information about your site. You can also visit the Site
Quick Draft
Title