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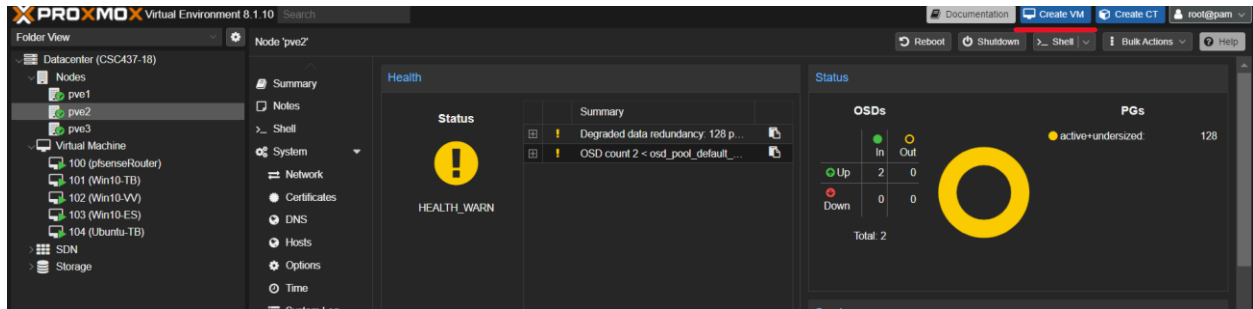
CSC 437

Taylor Myers

## Final Project

Log into your ProxMox Server and select the node you want to create the VM on.

Click on the “Create VM” Button in the top right corner of the screen.



Give it a unique VM ID and Name, hit Next. Select the storage as “local” and pick the Ubuntu ISO file, hit Next. Enable the QEMU agent, hit Next. Keep defaults, hit Next. Set the cores to 2, hit Next. Set the memory to 4096, hit Next. Keep defaults, hit Next. Confirm your settings and hit Finish.

Create: Virtual Machine

General OS System Disks CPU Memory Network Confirm

Key ↑	Value
agent	1
cores	2
cpu	x86-64-v2-AES
ide2	ISOs:iso/ubuntu-23.10-live-server-amd64.iso,media=cdrom
memory	4096
name	Ubuntu-Minecraft-VV
net0	virtio,bridge=vbr0,firewall=1
nodename	pve1
numa	0
ostype	l26
scsi0	PVEpools:32,iothread=on
scsihw	virtio-scsi-single
sockets	1
vmid	106

☐ Start after created

Advanced ☐ Back Finish

In your node, select your VM and hit Start.

Select your desired settings for the VM and hit continue until the system restarts. You should be presented with this page.

```
Ubuntu 23.10 minecraft tty1

minecraft login: vash
Password:
Welcome to Ubuntu 23.10 (GNU/Linux 6.5.0-28-generic x86_64)
```

Navigate to this website “<https://docs.docker.com/engine/install/ubuntu/>” and follow the instructions.

### Step 1: Set Up the Docker Repository

**# Add Docker's official GPG key:**

```
sudo apt-get update

sudo apt-get install ca-certificates curl

sudo install -m 0755 -d /etc/apt/keyrings

sudo curl -fsSL https://download.docker.com/linux/ubuntu/gpg -o /etc/apt/keyrings/docker.asc

sudo chmod a+r /etc/apt/keyrings/docker.asc

# Add the repository to Apt sources:

echo \

"deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.asc]
https://download.docker.com/linux/ubuntu \

$(. /etc/os-release && echo "$VERSION_CODENAME") stable" | \

sudo tee /etc/apt/sources.list.d/docker.list > /dev/null

sudo apt-get update
```

### Step 2: Install the Docker Packages

```
sudo apt-get install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin
```

### Step 3: Verify that the Installation was Successful

```
sudo docker run hello-world
```

You should get this as a response if the install was successful.

```
vash@minecraft:~$ sudo docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
c1ec31eb5944: Pull complete
Digest: sha256:a26bfff933ddc26d5cdf7faa98b4aae1e3ec20c4985e6f87ac0973052224d24302
Status: Downloaded newer image for hello-world:latest

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
1. The Docker client contacted the Docker daemon.
2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
   (amd64)
3. The Docker daemon created a new container from that image which runs the
   executable that produces the output you are currently reading.
4. The Docker daemon streamed that output to the Docker client, which sent it
   to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
$ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
https://hub.docker.com/

For more examples and ideas, visit:
https://docs.docker.com/get-started/

vash@minecraft:~$
```

Put the following code into a file and name it “docker-compose.yml”

```
1  version: "3.8"
2
3  services:
4    mc:
5      image: itzg/minecraft-server
6      environment:
7        EULA: "true"
8      ports:
9        - "25565:25565"
10     volumes:
11       - data:/data
12     stdin_open: true
13     tty: true
14     restart: unless-stopped
15   volumes:
16     data: {}
```

Save the file in its own directory.

Run the following command in the same directory where you saved the file.

```
sudo docker compose up -d
```

Open Minecraft on your Machine and Navigate to the direct connection button on the Multiplayer page.

Put in the ip address of the server and the port specified in the file in the following format.

“IP Address” : “Port”

