Before getting started.

step: 1 **Download an Ubuntu server install and set up on VMWARE.**

Step: 2 **And create a file named playlist.txt on your /home/<ubuntu>/playlist.txt**

Step: 3 **And create a directory named (video) on /home/<ubuntu>/video**

Step: 4 **And upload a <video.mp4> file on video directory**

Step: 5 **To Upload a <fmpeg_Ubuntu_setup >folder on video directory use SCP**

Step: 6 **./ setup_media_server # make execute** chmod +x setup_media_server

Step: 7 **./update_ setup_media_server # make execute** chmod +x update_setup_media_server

Step: 8 **./run.sh # Make excute** chmod +x run.sh

Method : Using SCP (Secure Copy)

SCP is a secure way to transfer files between your local machine and the Ubuntu server.

1. **Ensure SSH is enabled on the Ubuntu server:**
    - **Log in to your Ubuntu server via the VMware console or SSH.**
    - **Install and enable SSH if it's not already installed:**

```
sudo apt update
sudo apt install openssh-server
sudo systemctl enable ssh
sudo systemctl start ssh
```

2. **Find the IP address of the Ubuntu server:**
    - **Run the following command on the Ubuntu server:**

```
ip a
```

    - **Note the IP address (e.g., 192.168.x.x).**
3. **Copy the file using SCP from Windows:**
    - **Open a terminal on Windows (e.g., Command Prompt, PowerShell, or Windows Terminal).**
    - **Use the scp command to transfer the file:**

```
scp "C:\path\to\your\video.mp4" username@ubuntu_server_ip:/path/to/destination/
```

- **Replace:**
  - **C:\path\to\your\video.mp4 with the full path to your video file on Windows.**
  - **username with your Ubuntu server username.**
  - **ubuntu_server_ip with the IP address of your Ubuntu server.**
  - **/path/to/destination/ with the directory on the Ubuntu server where you want to save the file.**

4. **Enter your Ubuntu server password when prompted.**

STEP: 1

How to Use the Script

1. **Save the Script:**
   Save the script as setup_media_server.sh on your Ubuntu server.
2. **Make the Script Executable:**

```
chmod +x setup_media_server.sh
```

3. **Run the Script:**

```
./setup_media_server.sh
```

What the Script Does

1. **Installs Dependencies:**
   - FFmpeg, build tools, and libraries for Nginx.
2. **Compiles and Configures Nginx:**
   - Sets up Nginx with the RTMP module and HLS support.
3. **Creates a Web-Based HLS Player:**
   - Sets up a web page to play the HLS stream.
4. **Sets Up FFmpeg Streaming:**

- Streams a playlist of videos in a loop to the RTMP server.

5. **Automates FFmpeg:**
   - Creates a systemd service to ensure FFmpeg runs continuously.
6. **Displays Success Message:**
   - Provides the URL for the HLS player and the location of the playlist file.

Post-Setup Steps

1. **Edit the Playlist:**
   - Update the /home/ubuntu/playlist.txt file with the paths to your videos.
2. **Access the HLS Player:**
   - Open the HLS player in a browser:

http://<ubuntu_server_ip>/index.html

3. **Test on Hospital TVs:**
   - Use VLC or a web browser on the TVs to access the HLS stream.

STEP: 2

How to Use the Updated Script

Save the Script:

Save the script as update_setup_media_server.sh on your Ubuntu server.

Make the Script Executable:

```
chmod +x update_setup_media_server.sh
```

Run the Script:

```
./update_setup_media_server.sh
```

Enter Video Paths:

When prompted, enter the full paths to your video files.

Type `done` when you're finished.

How It Works

1. Playlist Creation:
    - The script prompts you to enter the full paths to your video files.
    - It validates each path to ensure the file exists.
    - You can type done to finish adding files.
2. Playlist File:
    - The playlist file is created at /home/ubuntu/playlist.txt.
    - It contains the paths to the videos you entered.
3. FFmpeg Streaming:
    - FFmpeg streams the videos in the playlist in a loop.
4. Automation:
    - A systemd service is created to ensure FFmpeg runs continuously.

How to Use the Updated Script

1. Save the Script:
   Save the script as setup_media_server.sh on your Ubuntu server.
2. Make the Script Executable:

```
chmod +x setup_media_server.sh
```

3. Run the Script:

```
./setup_media_server.sh
```

4. Enter Video Paths:
    - When prompted, enter the full paths to your video files.
    - Type done when you're finished.

Example Interaction

Enter the full path to a video file (or type 'done' to finish):
/home/ubuntu/videos/video1.mp4

Added: /home/ubuntu/videos/video1.mp4

Enter the full path to a video file (or type 'done' to finish):
/home/ubuntu/videos/video2.mp4

Added: /home/ubuntu/videos/video2.mp4

Enter the full path to a video file (or type 'done' to finish): done

Playlist created at: /home/ubuntu/playlist.txt

Post-Setup Steps

1. Access the HLS Player:
   Open the HLS player in a browser:

http://<ubuntu_server_ip>/index.html

2. Edit the Playlist:
   If you need to update the playlist later, edit the file:

```
nano /home/ubuntu/playlist.txt
```

3. Restart FFmpeg:
   If you update the playlist, restart the FFmpeg service:

```
sudo systemctl restart ffmpeg-stream.service
```

Steps to Use:

1. Save the script as run.sh:

```
nano run.sh
```

Paste the script and save it (CTRL + X, then Y, then Enter).

2. Make it executable:

```
chmod +x run.sh
```

3. Run the script:

```
./run.sh
```

This will continuously loop your playlist and stream it via RTMP. 🚀