

STEP-BY-STEP GUIDE: HOW TO RUN THE `apache_monitor.sh` SCRIPT ON UBUNTU

1. OPEN A TERMINAL

- Press `Ctrl + Alt + T`.

2. SAVE THE SCRIPT

- Ensure the `apache_monitor.sh` file is saved in your home folder (e.g., `~/apache_monitor.sh`).
- To create manually: run `'nano ~/apache_monitor.sh'` and paste contents.

3. MAKE THE SCRIPT EXECUTABLE

```
chmod +x ~/apache_monitor.sh
```

4. RUN THE SCRIPT (REQUIRES SUDO)

```
sudo ~/apache_monitor.sh
```

5. VIEW THE LOG OUTPUT

```
sudo less /var/log/apache_monitor.log
```

or:

```
sudo tail -n 50 /var/log/apache_monitor.log
```

6. CHECK APACHE STATUS

```
sudo systemctl status apache2
```

```
sudo systemctl restart apache2
```

7. OPTIONAL: RUN AUTOMATICALLY WITH CRON

```
sudo crontab -e
```

Add:

```
*/5 * * * * /root/apache_monitor.sh >> /var/log/apache_monitor_cron.log 2>&1
```

8. SECURITY NOTE ABOUT `chmod 777`

Avoid setting /var/www to world-writable.

Use safer permissions:

```
sudo chown -R www-data:www-data /var/www
```

```
sudo find /var/www -type d -exec chmod 755 {} \;
```

```
sudo find /var/www -type f -exec chmod 644 {} \;
```

9. FIX FOR TRUNCATED SCRIPT ENDING

Append this block to check and restart Apache only if needed:

```
if systemctl is-active --quiet apache2; then
echo "[OK] Apache is running." >> $LOGFILE
else
echo "[WARN] Apache is NOT running. Attempting restart..." >> $LOGFILE
sudo systemctl restart apache2 >> $LOGFILE 2>&1
if systemctl is-active --quiet apache2; then
echo "[OK] Apache restarted successfully." >> $LOGFILE
else
echo "[ERROR] Apache failed to start." >> $LOGFILE
fi
fi
```

10. TROUBLESHOOTING

- Permission denied → run `chmod +x` again.
- Script errors → check for incomplete lines in nano.
- Apache fails to install → `sudo apt update` then `sudo apt install apache2 -y`.