## **🚀 Guide: Using nohup to Run Python in Background on Linux**

### **💡 What is nohup?**

* nohup stands for **"No Hang Up"**
* It lets you run a command or script that **keeps running even after you close the terminal**
* It's often used for long-running Python scripts, web scrapers, ETL jobs, etc.

### **🤔 When to Use nohup**

✅ Use nohup when:

| **Situation** | **Why use nohup?** |
| --- | --- |
| Running a long-running script | Keeps running even if terminal closes |
| Running on a remote server (via SSH) | Prevents script from stopping if SSH disconnects |
| Running cron-like loops (while True) | Keeps script alive in background |
| Logging output to a file | Helps debug or monitor |

## **🧪 Step-by-Step: Run Python in Background with nohup**

### **📄 Example: script.py**

# script.py

import time

from datetime import datetime

while True:

with open("nohup\_log.txt", "a") as f:

f.write(f"Running at: {datetime.now()}\n")

print(f"Running at: {datetime.now()}")

time.sleep(60) # runs every 1 minute

### **🔁 Step 1: Run in Background with nohup**

nohup python3 script.py &

✅ Explanation:

* nohup → Run without hang-up
* python3 script.py → Your command
* & → Send it to background

### **📝 This creates a file:**

nohup.out

All stdout and stderr (print statements, errors) go here.

### **🔍 Step 2: Check If It’s Running**

ps aux | grep script.py

You’ll see something like:

ubuntu 12345 0.0 0.1 ... python3 script.py

That number (12345) is the **PID** (process ID).

### **🛑 Step 3: Kill the Background Script**

kill 12345

Or kill all Python scripts with:

pkill -f script.py

✅ It’s clean and shuts it down instantly.

### **🧹 Optional: Redirect Output to Custom File**

Instead of using default nohup.out, do this:

nohup python3 script.py > log.txt 2>&1 &

* > log.txt → standard output (print)
* 2>&1 → redirect errors to same file
* & → run in background

## **✅ Summary Table**

| **Command** | **Purpose** |
| --- | --- |
| nohup python3 script.py & | Run script in background |
| `ps aux | grep script.py` |
| kill <pid> | Kill the background process |
| pkill -f script.py | Kill by script name |
| tail -f nohup.out | Live view of log output |

## **🔚 When *Not* to Use nohup**

* When you need full job control, use **tmux or screen** instead.
* When using **cron**, nohup is not required (cron handles it).

### **About the Author**

**Gowtham SB** is a **Data Engineering expert, educator,** **and content creator** with a passion for **big data technologies, as well as cloud and Gen AI** . With years of experience in the field, he has worked extensively with **cloud platforms, distributed systems, and data pipelines**, helping professionals and aspiring engineers master the art of data engineering.

Beyond his technical expertise, Gowtham is a **renowned mentor and speaker**, sharing his insights through engaging content on **YouTube and LinkedIn**. He has built one of the **largest Tamil Data Engineering communities**, guiding thousands of learners to excel in their careers.

Through his deep industry knowledge and hands-on approach, Gowtham continues to **bridge the gap between learning and real-world implementation**, empowering individuals to build **scalable, high-performance data solutions**.

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💼𝐋𝐢𝐧𝐤𝐞𝐝𝐈𝐧 - https://www.linkedin.com/in/sbgowtham/

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💻𝐆𝐢𝐭𝐇𝐮𝐛 - http://github.com/Gowthamdataengineer

💬𝐖𝐡𝐚𝐭𝐬 𝐀𝐩𝐩 - https://lnkd.in/g5JrHw8q

📧𝐄𝐦𝐚𝐢𝐥 - atozknowledge.com@gmail.com

📱𝐀𝐥𝐥 𝐌𝐲 𝐒𝐨𝐜𝐢𝐚𝐥𝐬 - <https://lnkd.in/gf8k3aCH>