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Keeping a Node.js app running on a VPS with PM2

Node.js, Python & Docker

CODE

RLX-INT-KB-2766

VERSION

v2026.10.10

COUNTRY · LANGUAGE

International · English

MozOut International

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If you run `node app.js` in an SSH session, the application dies when the session closes, and does not return if the server reboots. **PM2** is a process manager for Node.js that fixes this: it starts the application in the background, restarts it if it fails, keeps the logs, and brings it back up when the server boots. It is for a **VPS** with root access; on shared hosting, “Setup Node.js App” plays that role (**Node.js in cPanel**).

Installing and starting

1

Install Node.js. Follow the instructions at nodejs.org for your system: the versions in the distribution’s repositories are often behind. Check with `node -v`.

2

Create a user for the application instead of running it as root, and log in as that user. A compromised application only reaches what that user can reach.

3

Install PM2:

```
sudo npm install -g pm2
```

4**Start the application** from its folder:

```
pm2 start app.js --name my-app
```

If the application starts through a script in `package.json` : `pm2 start npm --name my-app -- start` .

5**Check the state and the logs:**

```
pm2 list
pm2 logs my-app
pm2 monit
```

`pm2 logs` is the first place to look when the application goes down.

6

Make it survive a server reboot. Run `pm2 startup` : it prints a line you must copy and run with `sudo` . Then, with the application running, save the list: `pm2 save` . Test it for real by rebooting the VPS.

Everyday commands

Command	What it does
<code>pm2 restart my-app</code>	Stops and starts again. Use it after updating the code.
<code>pm2 reload my-app</code>	Reloads without cutting the service, when the application allows it.
<code>pm2 stop my-app</code>	Stops it but keeps it in the list.
<code>pm2 delete my-app</code>	Removes it from the list. Then run <code>pm2 save</code> .
<code>pm2 logs --lines 100</code>	The last lines of the logs of everything PM2 manages.
<code>pm2 env 0</code>	The environment variables of process number 0 (the number comes from <code>pm2 list</code>).

For a setup you repeat, PM2 accepts an `ecosystem.config.js` file with the name, the startup file and the variables, started with `pm2 start ecosystem.config.js`. Generate the file with `pm2 ecosystem`.

Forgot `pm2 save` ? Without it, PM2 brings back the list it had saved, and the new application is not in it. It is the most common cause of “it worked until I rebooted the server”. Another: running PM2 as root but saving the list under another user; `pm2 startup` has to be run for the user who runs the application.

The application should not be exposed directly. Make it listen on `127.0.0.1` and put a proxy with HTTPS in front: **nginx as a reverse proxy**. On an unmanaged VPS, PM2 and the application are yours to maintain: **how far our support goes**.

If you already use Docker, you do not need PM2: Docker itself restarts the container with `restart: unless-stopped`. Pick one of the two for each application, not both. For secrets and variables, see **environment variables and secrets**.

No VPS for the application yet? See the plans and pick the operating system when you order.

[See the VPS servers](#)

SEE ALSO

[Node.js in cPanel: choosing the version and using npm](#)

[Ports and firewall on a VPS: why your app is not reachable](#)

[First steps with your VPS](#)



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