

Lifetime Free n8n Setup on Render for LinkedIn Automation

This guide explains how to self-host n8n on Render's free tier to automate LinkedIn posting with AI-generated content and images.

Step 1: Sign Up for Render

1. Go to <https://render.com> and sign up.
 2. Verify your email.
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Step 2: Prepare n8n for Deployment

Render supports Dockerized apps or GitHub repos.

Option A: Docker

1. Create folder `n8n-render`.
2. Create a Dockerfile:

```
FROM n8nio/n8n:latest
EXPOSE 5678
VOLUME ["/home/node/.n8n"]
```

3. Optional: add `.dockerignore` to exclude unnecessary files.

Option B: GitHub Repo

- Push n8n setup or docker-compose.yml to GitHub.
 - Render pulls repo for deployment.
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Step 3: Create Render Web Service

1. Go to Render Dashboard → New → Web Service.
 2. Select GitHub repo or Docker image.
 3. Configure:
 4. Name: `n8n-spinzy`
 5. Region: nearest to you
 6. Branch: `main`
 7. Instance Type: Free
 8. Environment: Docker
 9. Click **Create Web Service**.
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Step 4: Configure Environment Variables

Variable	Example / Notes
N8N_BASIC_AUTH_ACTIVE	true (enable password protection)
N8N_BASIC_AUTH_USER	yourusername
N8N_BASIC_AUTH_PASSWORD	yourpassword
WEBHOOK_URL	https://n8n-spinzy.onrender.com/
GENERIC_TIMEZONE	Asia/Kolkata or your local timezone

Optional API keys: - HUGGINGFACE_API_KEY - LINKEDIN_ACCESS_TOKEN

Step 5: Access n8n Dashboard

- Go to your Render URL: `https://n8n-spinzy.onrender.com`
- Login with the basic auth credentials.
- n8n is now ready for workflow deployment.

Step 6: Deploy LinkedIn Automation Workflow

1. Build workflow in n8n:
2. **Cron Node** → Trigger daily/weekly
3. **Hugging Face HTTP Node** → Generate LinkedIn post text
4. **Hugging Face Image Node** → Generate related image
5. **LinkedIn HTTP Node** → Post text + image
6. Test manually.
7. Activate workflow → automatic posting.

Step 7: Notes & Limitations on Render Free Tier

- **Sleep:** Free Web Services sleep after 15 min inactivity.
- Solution: Use a **cron-based ping** like UptimeRobot.
- **Resource Limits:** 750 hrs/month, 512MB RAM → fine for n8n + AI requests.
- **Persistence:** Use Docker volumes to store workflow data (`/home/node/.n8n`).

✓ Result

- n8n self-hosted on Render, free indefinitely.
- AI generates LinkedIn posts + images automatically.
- Posts trending-topic content without manual effort.
- Fully automated workflow running 24/7 with minimal maintenance.