

## N8N FULL DEPLOYMENT GUIDE — GOOGLE CLOUD VM + DOCKER + TRAEFIK + DUCKDNS

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### 1. Create Google Cloud VM:

- Platform: Google Cloud Free Tier Account
- Machine type: e2-micro (free-tier compatible)
- OS: Ubuntu 22.04 LTS
- Allow HTTP & HTTPS traffic

### 2. Connect to VM:

- Use SSH from Google Cloud Console.

### 3. Update System:

```
sudo apt update && sudo apt upgrade -y
```

### 4. Install Required Tools:

- Install Docker:

```
curl -fsSL https://get.docker.com | sudo bash
```

- Install Docker Compose plugin:

```
sudo apt install docker-compose-plugin -y
```

### 5. Set Up DuckDNS:

- Register domain at DuckDNS (example: yashpatole.duckdns.org)
- Update IP automatically using:

```
https://www.duckdns.org/update?domains=YOUR_DOMAIN&token;=TOKEN
```

- Ensure A record resolves correctly.

### 6. Create .env File:

```
DOMAIN_NAME=duckdns.org
```

SUBDOMAIN=yashpatole

GENERIC\_TIMEZONE=Asia/Kolkata

SSL\_EMAIL=yashpatole81@gmail.com

7. Create n8n-compose directory:

```
mkdir ~/n8n-compose && cd ~/n8n-compose
```

8. Save compose.yaml:

- Includes:

Traefik reverse proxy

Automatic HTTPS SSL

n8n workflow automation app

Docker labels for routing

9. Start Deployment:

```
sudo docker compose up -d
```

10. Restart Traefik & n8n After Fixes:

```
sudo docker compose down
```

```
sudo docker compose up -d
```

11. Verify Containers:

```
sudo docker ps
```

12. Verify Logs:

```
sudo docker logs n8n-compose-n8n-1
```

```
sudo docker logs n8n-compose-traefik-1
```

13. Access n8n:

<https://yashpatole.duckdns.org>

14. If SSL errors occur:

- Recreate Traefik data:

```
sudo docker compose down -v
```

```
sudo docker compose up -d
```

15. If 502/404 errors:

- Ensure correct labels in compose file.
- Ensure n8n is reachable internally:

```
curl http://127.0.0.1:5678
```

16. Final Working Deployment:

- Docker running both containers
- Traefik generating SSL certificates
- n8n accessible over HTTPS
- DuckDNS domain pointing correctly

17. Important Notes:

- You can close SSH window anytime; VM keeps running.
- Always use e2-micro to stay inside Google free tier.