LOAD BALANCER PROJECT SUBMISSION

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PROJECT SUMMARY

Built a production-ready load balancer with custom domain and SSL certificate using entirely free services.

What Was Built

- NGINX load balancer with 3 backend servers

- Custom domain via DuckDNS

- Valid SSL certificate from Let's Encrypt

- Automatic certificate renewal

- HTTP to HTTPS redirect

Technical Stack

- **Load Balancer:** NGINX

- **Domain:** DuckDNS (free)

- **SSL:** Let's Encrypt

- **Infrastructure:** AWS EC2

- **Cost:** $0

Verification

SSL Certificate Status

- Valid certificate issued

- Trusted by browsers (green padlock)

- Auto-renewal configured

- Expires: 90 days (auto-renewing)

Load Balancing Working

- Requests distributed across 3 servers

- Health checks active

- Failover capability

SOCIAL MEDIA & DOCUMENTATION

LinkedIn Post:

https://www.linkedin.com/posts/sally-m-09546a245_steghub-devops-cloudengineering-activity-7391167235592994816-UZaO?utm_source=share&utm_medium=member_desktop&rcm=ACoAADzCKfEBZK3LPTQ5D0pi879scjlAX0g4FTk

GitHub Repository:

StegHub_DevOps/project9 at main · 123Origami/StegHub_DevOps

LEARNING OUTCOMES

- Load balancer configuration and management

- DNS and domain registration

- SSL/TLS certificate implementation

- Automated deployment processes

- Infrastructure as code principles

- Cost optimization strategies

This project demonstrates professional-grade infrastructure setup using free tools and services, proving that great technology doesn't require a large budget.