

Next Steps & Lesson Plan: Discord Bot on RunPod

PHASE 1: COMPLETED FOUNDATION

- Refamiliarized with Git basics and GitHub workflow.
- Confirmed repository: discordbot1.0.
- Installed and configured Tailscale on Mac and iPhone.
- Verified private, encrypted connectivity (ping success, 0% packet loss).
- Brew environment operational; Docker installed and ready.

Result: A stable, secure base system for collaborative development and deployment.

PHASE 2: NEXT SESSION (DAY 2) GOALS

1. Connect RunPod to Tailscale
 - Join RunPod node to your existing tailnet.
 - Confirm it appears in `tailscale status` on both Mac and RunPod.
 - Test communication with ping and optional file transfer.
 - Outcome: RunPod securely linked for private operations.
2. Clone and prepare Discord Bot Repository
 - Command: `git clone https://github.com/Brockmerkwan/discordbot1.0.git`
 - Enter repo: `cd discordbot1.0`
 - Install dependencies: `npm install`
 - Validate bot scripts and environment variables.
 - Outcome: Ready-to-run bot code synchronized with GitHub.
3. Containerize the Discord Bot with Docker
 - Create Dockerfile defining environment and startup command.
 - Example base:

```
FROM node:18-alpine
WORKDIR /app
COPY . .
RUN npm install
CMD ["npm", "start"]
```
 - Build image: `docker build -t discordbot1.0 .`
 - Run container: `docker run -d --name discordbot -p 3000:3000 discordbot1.0`
 - Outcome: Bot runs in isolated, repeatable container.
4. Connect Docker + Tailscale
 - Use Tailscale network to communicate between Mac and RunPod.
 - Verify internal access: `curl http://100.x.x.x:3000`
 - Optional: add container Tailscale integration for direct mesh networking.
 - Outcome: End-to-end control of container from Mac, securely tunneled.

PHASE 3: SHORT-TERM ROADMAP (WEEKS 1-3)

Week	Focus	Deliverables
1	Connect RunPod to tailnet, clone bot repo	Private network, bot code live
2	Containerization & automation	Dockerfile finalized, CI/CD basics
3	Deploy bot and monitor	Active bot hosted on RunPod with logs

PHASE 4: HARDENING AND MONITORING

- Implement LuLu or pf firewall rules for outbound traffic control on Mac.
- Harden SSH and disable password logins.
- Secure RunPod node with Tailscale SSH (no public exposure).
- Use Tailscale ACLs for node access policies.
- Verify fail2ban or equivalent log watcher if SSH is exposed internally.

PHASE 5: FUTURE LESSONS (OPTIONAL EXPANSION)

1. Integrate Cline agent for autonomous deployment updates.
2. Add GitHub Actions CI/CD workflow to auto-build Docker images.
3. Connect a database (PostgreSQL or SQLite) for bot data.
4. Implement logging pipeline to local machine via Tailscale VPN.
5. Write documentation and serve it securely through a Tailscale funnel or Caddy HTTPS proxy.

TEACHER'S SUMMARY

Today established the critical foundation: Git version control and Tailscale networking. The next lesson The process is intentionally structured: one concept at a time, minimal dependencies, maximum repeatability

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