

Minecraft Java Server - Beginner Complete Guide

This PDF provides a complete beginner-friendly overview of how to create, manage, and optimize your own Minecraft Java server. It includes setup steps, hosting differences, cost breakdown, performance tips, and troubleshooting guidance.

1. Local vs Hosting

- Local Server: Runs on your own PC. Best for small groups (1–5 players).
- Hosting Provider: Runs on remote servers. Best for 24/7 uptime and larger groups.
- Local = Free but depends on your hardware and internet.
- Hosting = Monthly cost but more stable and easier to manage.

2. Step-by-Step Setup Overview

- Install Java (latest compatible version).
- Download official server.jar from Minecraft website.
- Create a dedicated server folder.
- Run server once to generate files.
- Accept EULA by setting eula=true.
- Run server again and verify 'Done' message in console.
- Edit server.properties if needed.
- Join using localhost (127.0.0.1).

3. Costs Explained

- Local hosting: No direct cost, but uses electricity and hardware resources.
- Shared hosting: Typically \$5–\$15 per month depending on RAM and features.
- More RAM is required for modded or high-player servers.
- Avoid extremely cheap hosting plans with unrealistic performance claims.

4. Performance Optimization Tips

- Use SSD storage for faster world loading.

- Lower view-distance in server.properties to reduce lag.
- Limit heavy mods on low RAM systems.
- Keep Java updated for stability and security.
- Back up your world folder regularly.

5. Troubleshooting Quick Fixes

- Server closes instantly: Check if EULA is accepted.
- Friends cannot join: Verify port 25565 is forwarded.
- Lag issues: Reduce view-distance and check RAM allocation.
- Memory error: Lower Xmx RAM value.