Lab 4 Report: Gitea Installation with Docker

Course: Cloud Computing

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1. Components and Tools

Platform: Docker Desktop with WSL2 backend

Tools:

Docker Desktop

Windows Terminal

Web Browser (for Gitea access)

Configuration Files:

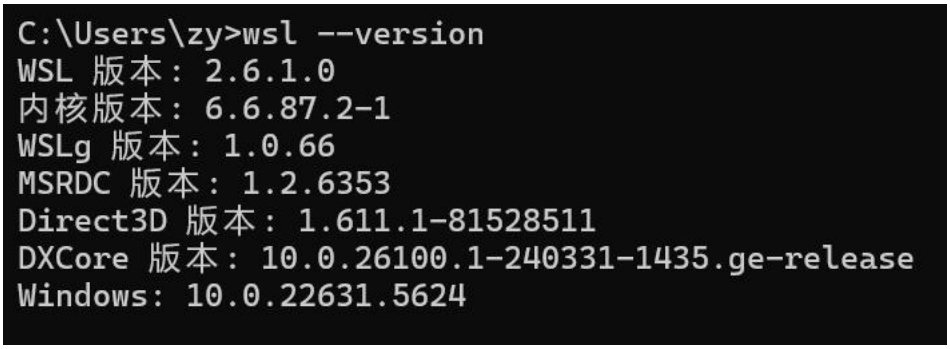
`docker-compose.yml`(Gitea deployment configuration)

Gitea configuration files (auto-generated)

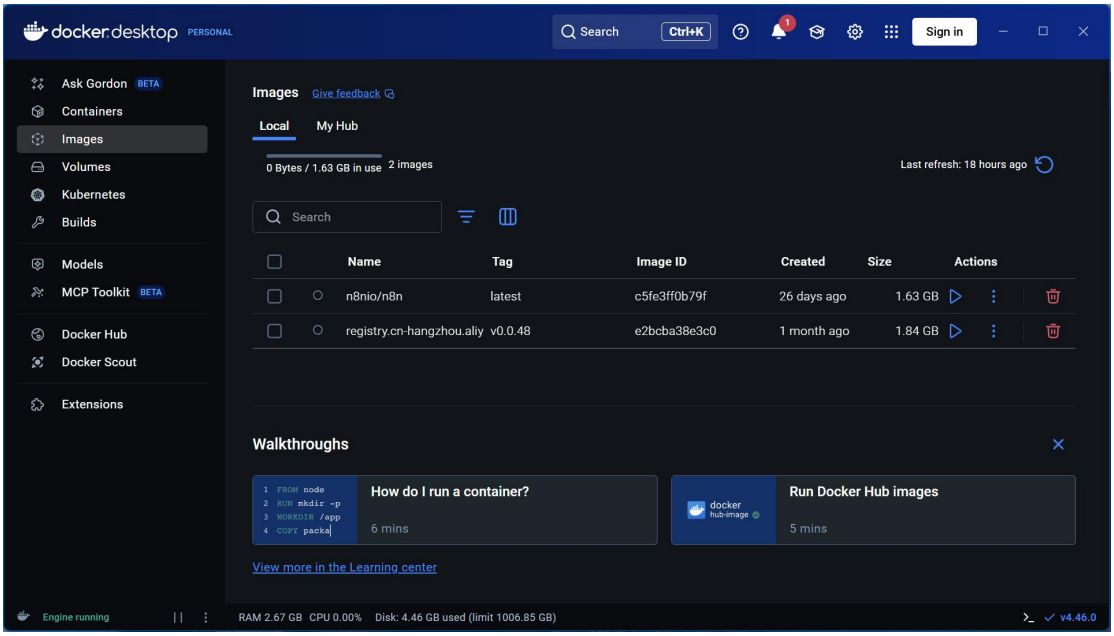
2. Procedures

Step 1: Install WSL and Docker Desktop

Enabled WSL feature: `wsl --install`

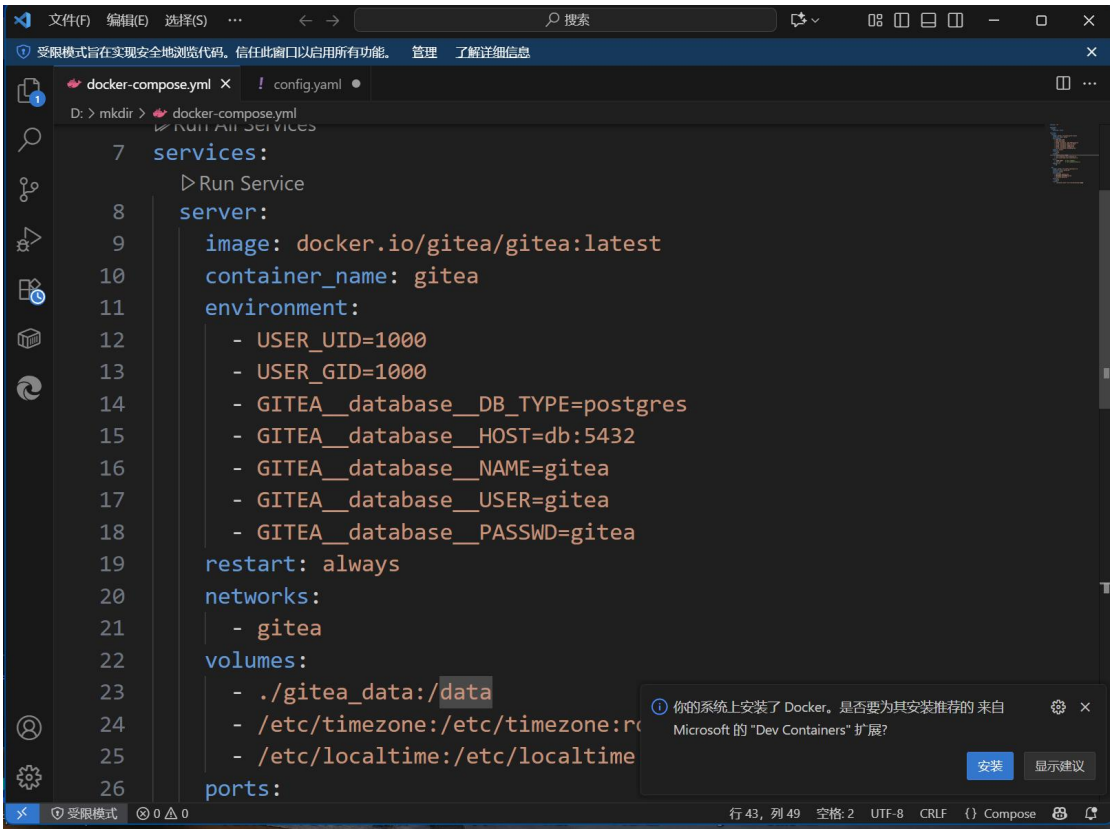


Downloaded and installed Docker Desktop

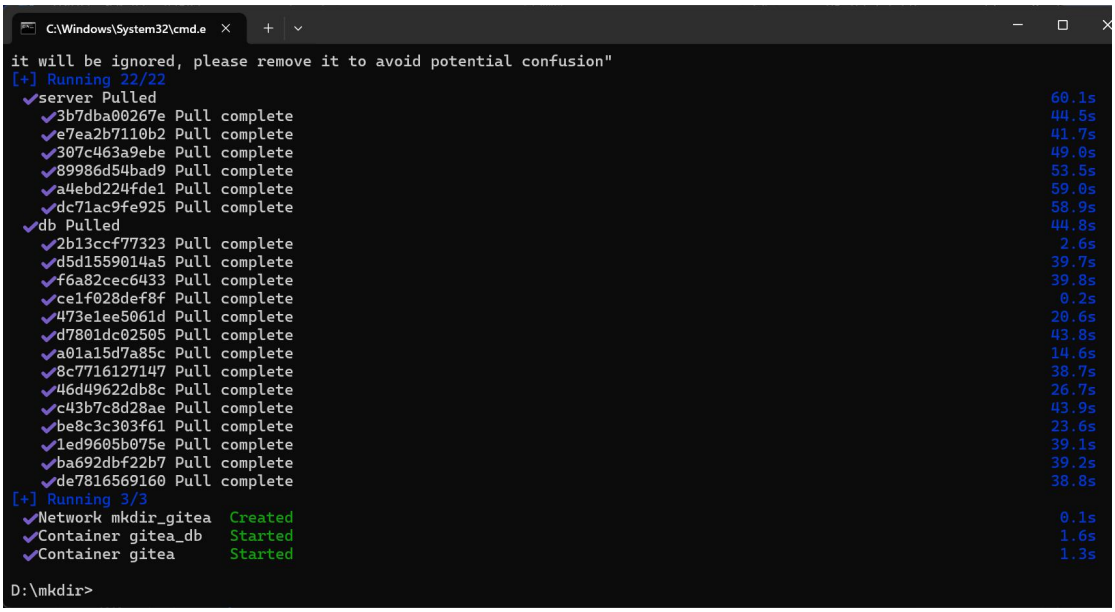


Step 2: Deploy Gitea with Docker Compose

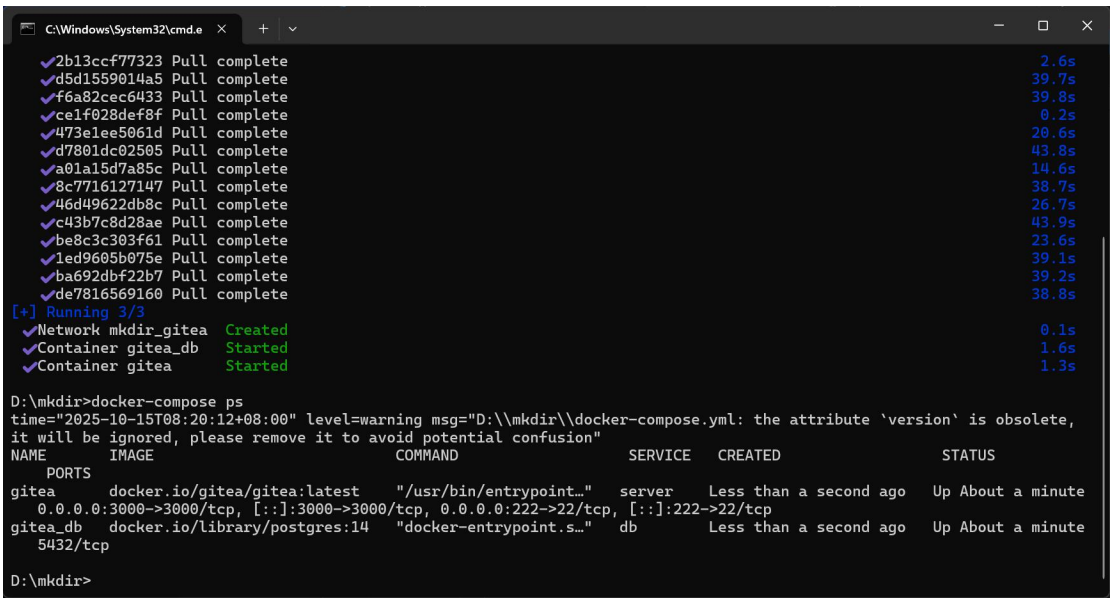
Created `docker-compose.yml`file with Gitea configuration



Executed deployment command: `docker-compose up -d`



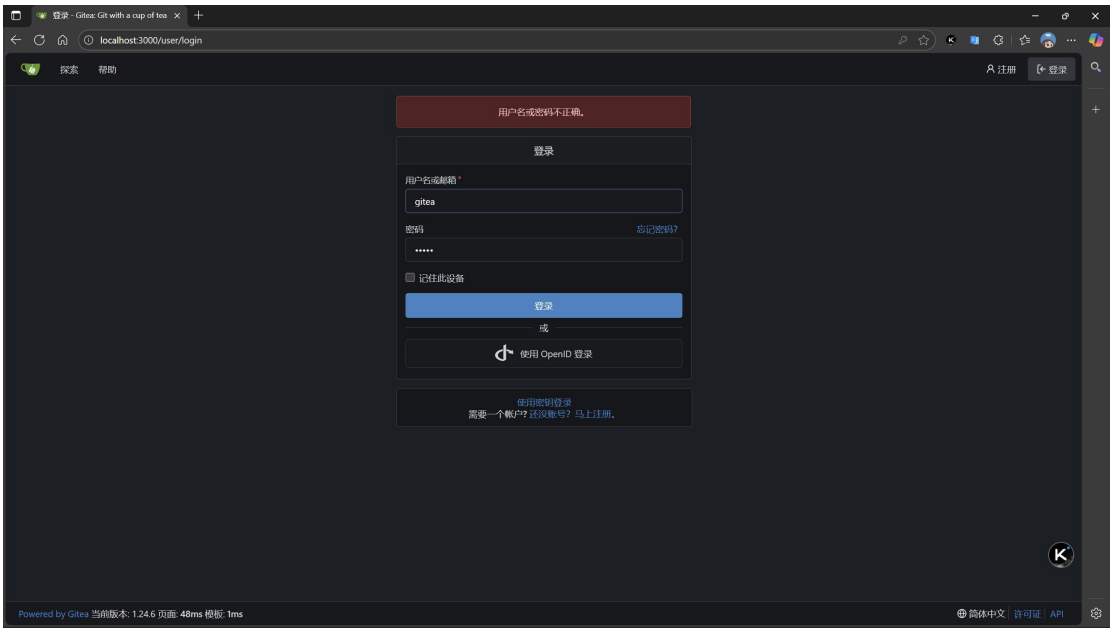
Verified container status: `docker-compose ps`



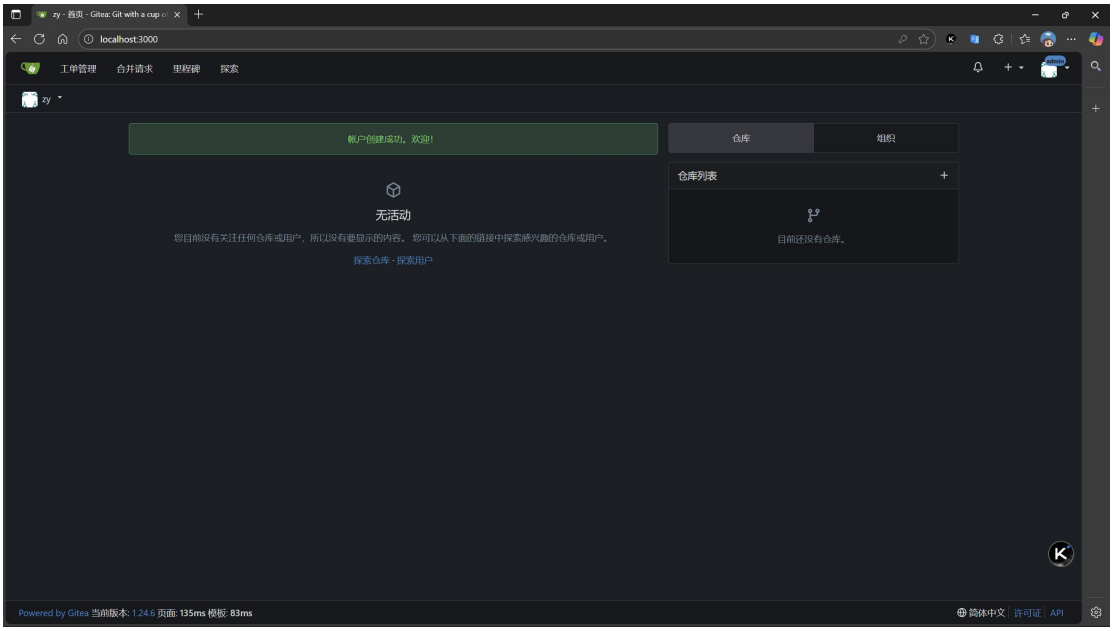
Step 3: Initial Gitea Setup

Accessed Gitea web interface at http://localhost:3000

Completed installation wizard with SQLite database



Configured admin account and basic settings

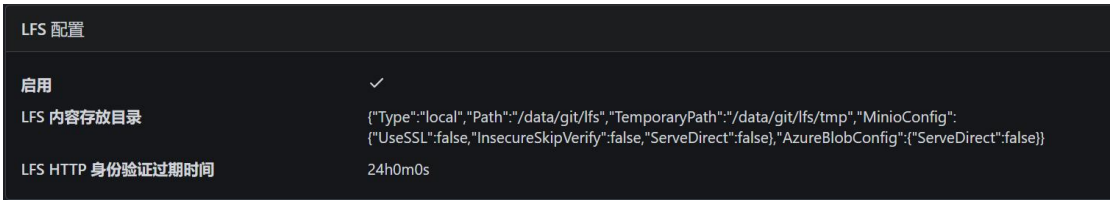


Step 4: LFS Support Verification

Verified LFS support in Gitea administration panel

Created test repository with LFS functionality

Proof of LFS support:



Step 5: Large File Repository Creation

Created new repository for large file testing

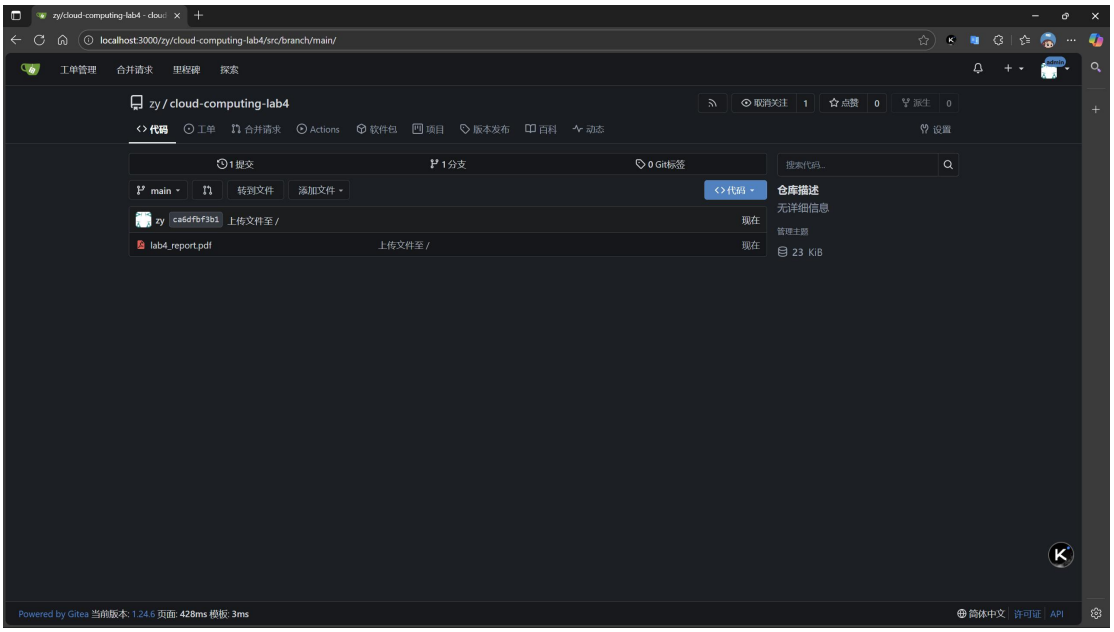
Pushed file exceeding 1GB size using LFS

Step 6: Course Module Repository

Created repository: `cloud-computing-lab4`

Committed all lab work and documentation

Repository URL: [zy/cloud-computing-lab4 - cloud-computing-lab4 - Gitea: Git with a cup of tea]



4. Conclusion

This lab demonstrated containerized deployment of self-hosted Git services using Docker. Key achievements:

Containerization Proficiency: Successfully deployed Gitea using Docker Compose

LFS Capability: Verified Gitea's large file support with practical testing

Self-Hosted Git Management: Established private Git server for academic work

DevOps Skills: Gained hands-on experience with container orchestration