Issues and Challenges
1. Unable to Deploy and Clean

-The GitLab pipeline succeeded on the first deployment.
-The next pipeline run failed with SSH authentication errors:

“Permission denied (publickey)”

-Each VM stopped accepting the same SSH key immediately after the first successful login.
-Attempted fixes included adjusting permissions on ~/.ssh and authorized_keys on the second virtual machine.
-The issue persisted: first login always worked, and every login after that failed.

2. Debugging With TA Instructions

After receiving troubleshooting guidance from the TAs:

-A third VM was created, but the same issue occurred after the first login.
-Permissions were validated (~/.ssh = 700, authorized_keys = 600).
-SSH keys were also verified using ssh-add on the local machine.

Despite these steps, every VM behaved identically:
-SSH access worked once.
-SSH access failed permanently after that.

3. Service Verification Despite SSH Issues

Even though SSH consistently failed after the first login,
the deployed service continued functioning normally on all VMs.
I get this on all three VM's

curl ubuntu@86.50.22.0:8199/status
2025-11-21T21:08:59Z: uptime 1.86 hours, free disk in root: 74717 MBytes%

curl ubuntu@86.50.22.0:8199/log
2025-11-21T19:39:22Z: uptime 0.37 hours, free disk in root: 74717 MBytes
2025-11-21T19:39:25Z: uptime 0.37 hours, free disk in root: 74717 MBytes
2025-11-21T21:08:59Z: uptime 1.86 hours, free disk in root: 74717 MBytes

These results confirm:

-The application deployed correctly.
-Docker and Docker Compose ran continuously.
-HTTP endpoints were reachable and returned correct output.
-All VMs responded properly to curl requests even after SSH access was lost.

Summary:
Despite following documentation, TA instructions, and recreating three separate VMs, the main blocker throughout the assignment was the consistent failure of SSH authentication after the first successful login. This issue affected all subsequent deployment attempts, caused GitLab pipeline failures, and ultimately prevented repeatable deployments as required by the assignment specification.