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Senior project report 6

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Docker Based Container Engine: Process, Resource, and Filesystem Isolation

This week, I got the container working and I focused on polishing my container runtime **code** to improve stability, readability, and structure. I cleaned up the namespace setup, optimized how the base root filesystem is created and mounted, and ensured that all isolation layers (PID, UTS, mount, and cgroups) work together reliably. I wasn't able to expand more on my features and algorithm but I will most likely do that next week.

 I also began preparing for my **midterm presentation**, organizing key technical points such as how namespaces, cgroups, and chroot provide process and filesystem isolation. My goal for next week is to finalize the demo environment and include a clear visualization of the container lifecycle to help explain how my runtime functions like a simplified version of my program. Working on the 20 page report and hopefully everything looks good by the end of the week.


Source:

https://github.com/InspectRM/senior-backup/tree/master/container