

OPERATING SYSTEM PROJECT PROPOSAL: VIRTUAL MACHINES & CONTAINERS

I initially wanted to do something more project-based since I felt that might be more interesting, not only to me but also to others for the presentation. I was thinking something to do with the Linux kernel, Minix, or something about Unix in general. I figured that would be a good thing to look into because of its prevalence, and it could easily tie back into Operating System concepts. However, the problem was I couldn't think about what exactly a good project could be and what a reasonable scope for this time frame could be. Since I don't know what I don't know, it's hard to know what project is practical to do, that would be an engaging level of difficulty, and that has a reasonable time frame to complete it.

Therefore because of those reasons, I decided it may be more reasonable to start off with something more survey based and that I feel more comfortable knowing would have a scope I could handle. From there, if a project comes out of that research and from learning more about the topic, so be it, and I can move forward from there. However, I think it's difficult to come up with a reasonable project, at least to me, without diving more into the topic first.

The topic I landed upon was partly from the mention of Docker in class that kind of sparked the idea more and partly from my ignorance on servers, deploying applications, etc. Also at my internship, we use VMware pretty often to run the application during development. I don't know much about virtual machines and how they work. I don't know much about containers and the programs that implement them like Docker. Nor do I know much about the tools frequently used with something like Docker such as Vagrant and what those tools are really doing. I think an essay on virtual machines, containers, how they're different, and maybe on the tools surrounding them if that fits in could be interesting. I would also find that enlightening to dig into those since that's not a topic I know much about. It would be practical knowledge to know about for working on applications in those environment and for deploying applications. Virtual machines and containers can also easily directly tie into operating system concepts. This is how I landed upon those ideas, and why I think this could be a good choice for the project.