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CSEC380 HW1 Write-Up

1. How did you select which technologies you would use?
 - a. I selected topologies based on what was easiest to configure as well as what I have already used before. Initially, I was going to run Nginx as my webserver, caching server, and load balancer because I assumed they would all work well together. Upon beginning confirmation, the webserver was no issue getting up but I spent hours trying to configure the caching server and load balancer server and decide to go another route. I was already familiar with apache so I ran that as my webserver, from there I used Varnish because there was a lot of documentation online and premade docker image.
2. Do some of these combinations work better together than others?
 - a. For me yes, I am assuming if I knew more about the other services I would say that it doesn't matter too much. I personally couldn't get Nginx working for anything beyond a webserver. Theoretically, there should not be better combinations since all the services are just running and connecting over HTTP so the separate servers should not have an issue connecting to another combination of servers.
3. Are some easier to use or deploy?
 - a. Absolutely. Varnish was not nearly as hard for me to deploy compared to Nginx. I am assuming that it is a personal information gap, but personally yes.
4. Topology
 - a. I made the apache webserver feed into the vanish load balancer which is behind the varnish caching server. This is done because otherwise, we would need two caching servers which is not only more intense infrastructure as another docker container is being added but adds little to no benefit in terms of availability or scalability

