# Containers

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## Complete the following problems

References, a video, a PowerPoint and some notes are available at my website https://www.aholdengouveia.name/LinuxAdmin/containers.html

#### You may do this on one of your servers.

1. Install Docker and Kubernetes on your server.

You can use Microk8 as your Kubernetes installation method Instructions: https://microk8s.io/

2. Go through the MiniKube tutorial

Tutorial: https://kubernetes.io/docs/tutorials/hello-minikube/

3. Get a basic web server working using Docker  $\overline{OR}$  kubernetes on  $\overline{ONE}$  of your servers.

You can grab the docker image from https://hub.docker.com/\_/httpd

I also have some instructions and sample yaml files available for you on my website https://www.aholdengouveia.name/SmartHome/Virtualizationsetup.html

If you would prefer you can substitute another server for Apache such as Home Assistant or ZoneMinder.

### **Deliverables**

Target Market is someone technically inclined but unfamiliar with virtualization. Include screenshots to walk them through the install process, as well as explanations of what you're doing and any troubleshooting that was needed.

- 1. A document on how to install Docker and Kubernetes on your server.
- 2. A short document describing how the Minikube tutorial went, what gave you trouble (if anything) and how you fixed it. Include screenshots to show how it went and what steps you did.
- 3. An executive summary on what containers are, pro/cons of containers, and why you think Acme corp should or shouldn't consider using them going forward. Executive summary should be less than 1 page.
- 4. A link to resources for containers that you have found helpful that I haven't already shared anywhere.