Docker Usage and Introduction

Zack

Usage - Setup

https://github.com/PlusAI/drive/blob/master/README.md

- Run `sudo ./setup-docker.sh` in drive repo
- Run `docker run hello-world` to ensure docker works, otherwise please reboot and try again

```
plusai@dayuan-volvo:~$ docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
1b930d010525: Pull complete
Digest: sha256:6540fc08ee6e6b7b63468dc3317e3303aae178cb8a45ed3123180328bcc1d20f
Status: Downloaded newer image for hello-world:latest

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
 1. The Docker client contacted the Docker daemon.
 2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
    (amd64)
 3. The Docker daemon created a new container from that image which runs the
    executable that produces the output you are currently reading.
 4. The Docker daemon streamed that output to the Docker client, which sent it
    to your terminal.
```

- `git clone git@github.com:PlusAI/tools.git`
- `sudo ln -s $YourWorkSpace/tools/drive /usr/local/bin/drive`
- Run `drive --init [sz|sv|bj]` Password Or search Jenkins Setup in drive repo's wiki page

Usage - Development

- `drive --pull` to download latest image from docker server. (optional)
- `drive` to enter the container and start coding!
- `CTRL+d` to exit

Usage - Development

- `drive --pull` to download latest image from docker server. (optional)
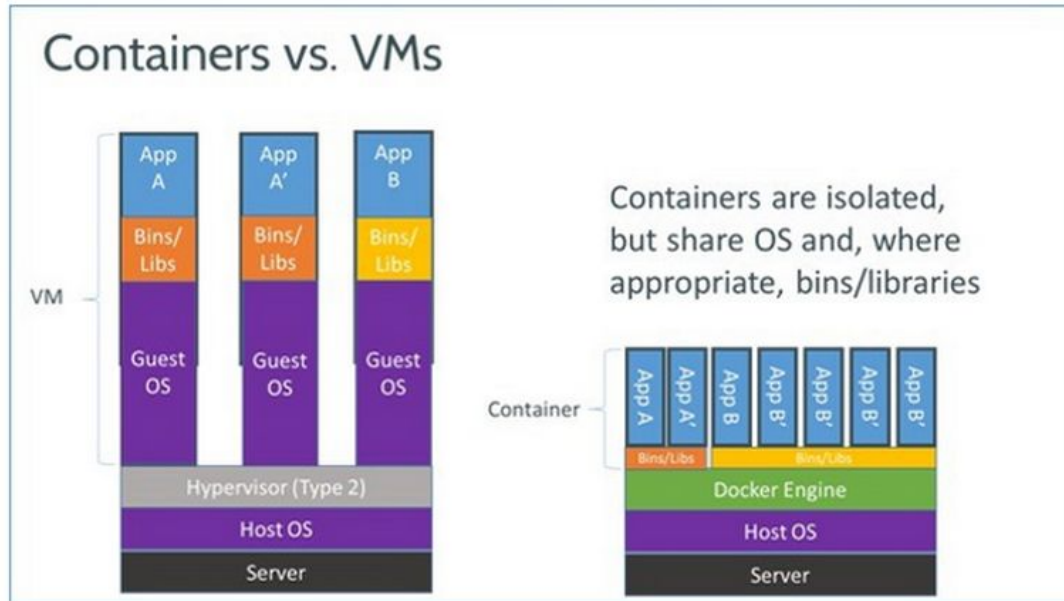- `drive` to enter the container and start coding!
- `CTRL+d` to exit

Usage - More options

- `drive --no-x11` disable display/x11 forwarding
- `drive --name [name]` to name your container
- `docker ps` to list running containers
- `drive --exec --name [name]` to attach a new shell proces to the specified container
- `drive -i plusai-prs/drive:$PR_NUM` to enter the container built by this PR, no need to build locally. (Only works for US settings for now)
- `CTRL+p` then `CTRL+q` to detach from current container
- Or more https://github.com/wsargent/docker-cheat-sheet

For those who don't know anything about docker...

What is Docker?

https://opensource.com/resources/what-docker

Containers vs. VMs

Containers are isolated, but share OS and, where appropriate, bins/libraries

Why Docker?

- Dependency Matrix. Save your day from package/dependency issues
- When others need to run the code, they download the image, along with the code (and dependencies) and it just runs.
- Easier Integration. It guarantees a level of isolation from other applications running on the target host
- Docker Containers will deploy and run consistently from one environment to the next.