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DevOps MID-2

DOCKER

* Compatibility Issue

* While using diff stacks or technologies, we have an issue of their compatibility with OS.

* Issue of one service require one version of dependent library whereas other service req. other version.

Docker

* Enable us to run each component in separate container with its own libraries & dependencies - on same VM & OS, but within separate container.

Container

- * Isolated environment, they have their own processes or services, own network interfaces,
- * They all share same OS kernel
- * We have system with UBUNTU OS with Docker installed on it. Now Docker can run any OS on top of it that have same kernel.



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VM VS DOCKER

- | | |
|--|--|
| * VM have host OS inside each VM. | * Docker ^{use} container which are stand-alone and share host OS. |
| * VM have their own set of resources. | * Container share host resources. |
| * VM require more resources like high disk space, in GiB | * less resources in MBs. |
| * need to bootup entire OS | * Boot up in seconds. |

* Docker Registry

You can find pre-package applications like OS, DB etc on platform called Docker Hub. It is like an store for container.

* To start Application run command:

* `docker run ansible`

img name

* `docker run node.js`

To run app with nodejs point it to the code repository on your computer.

* `docker run -v /path/to/my-web/app node.js`



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* If one instance fail, destroy it & launch new one.

~~Defn~~ Container VS Image =

- * Image is a package to create one or more container.
- * Container are running instances of images.
- * We can create img & push it on Docker Hub & available for public

Docker Compose	Docker File
<ul style="list-style-type: none">* Define & run multi-container applications.* Format: docker-compose.yml	<ul style="list-style-type: none">* Build Docker img for single container.* Text file