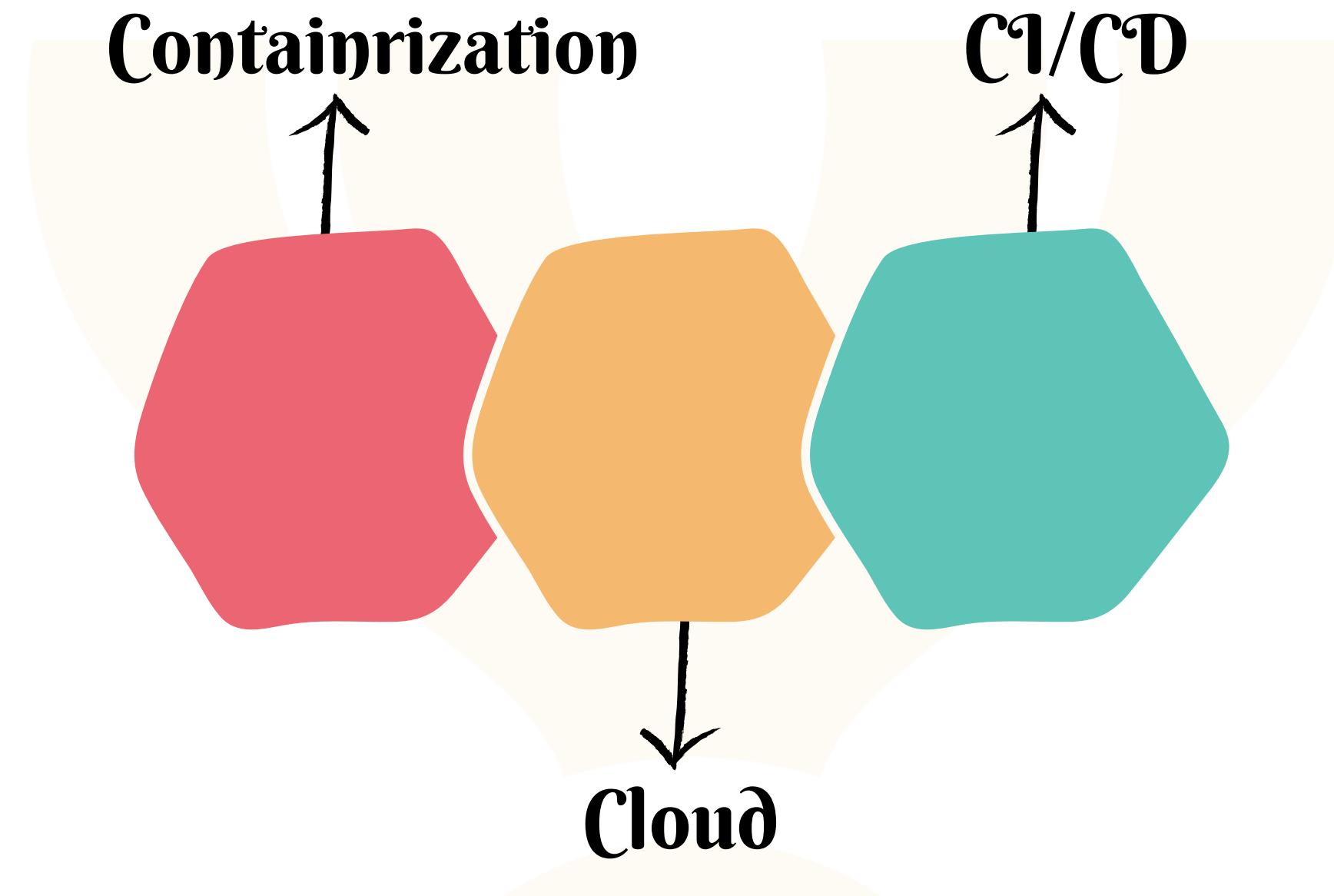


CONTAINERIZATION

ENG MOHAMED ELWEZA - ENG NADER ASHOUR

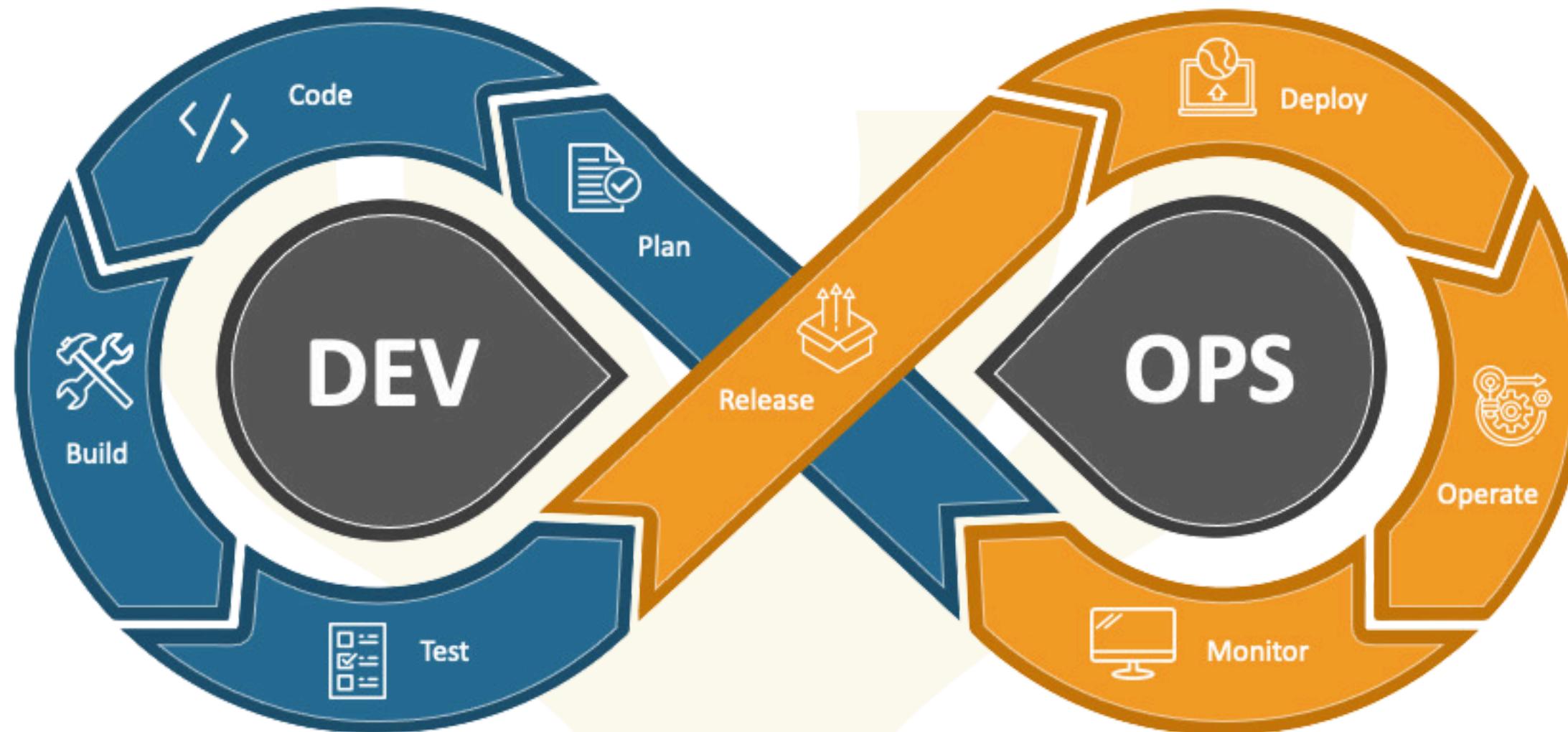
ABOUT NEXT THREE-SESSIONS



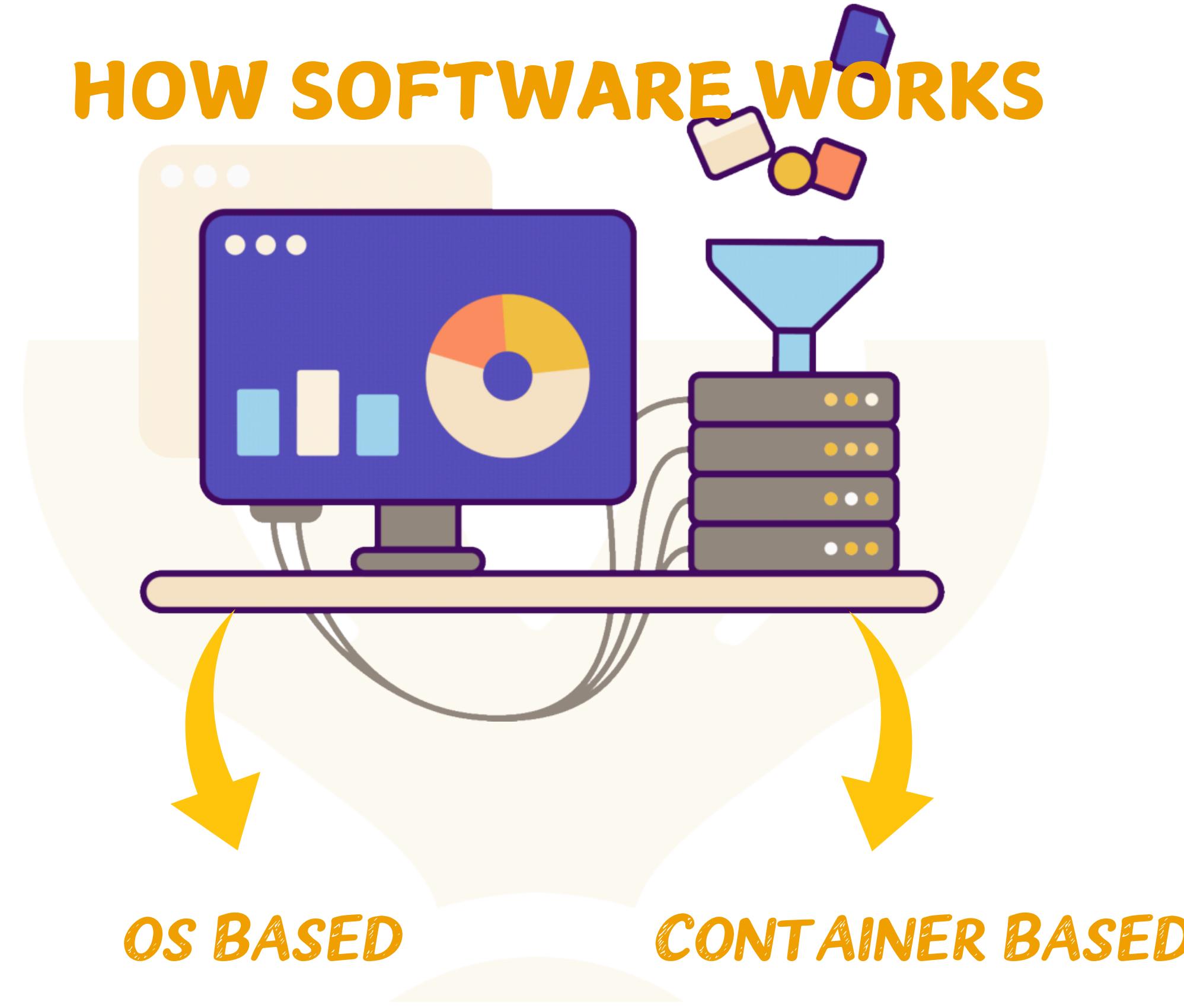
📌 AGENDA

1. What is SDLC?
2. Before Containers
3. What are Containers?
4. Docker and its Components
5. Let's Dockerize.
6. Docker Compose & Docker Hub
7. Conclusion

SDLC



HOW SOFTWARE WORKS



OS BASED



BARE METAL

VIRTUALIZATION

CONTAINER BASED

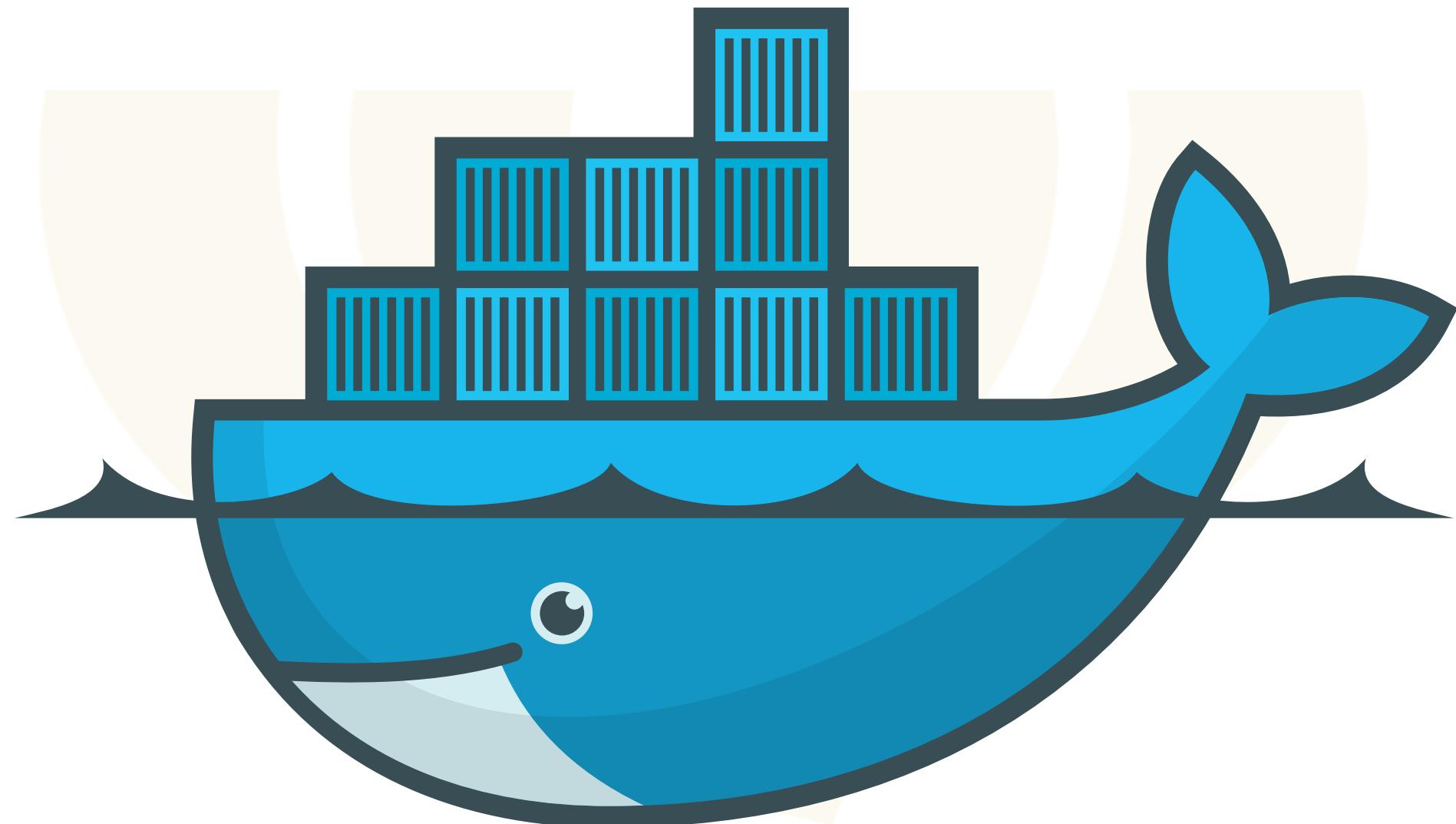
- Sunmicro Systems
- First Implementation of container.
- UNIX Solaries & Zones
- Oracle 2009



WHAT IS THE CONTAINER ?

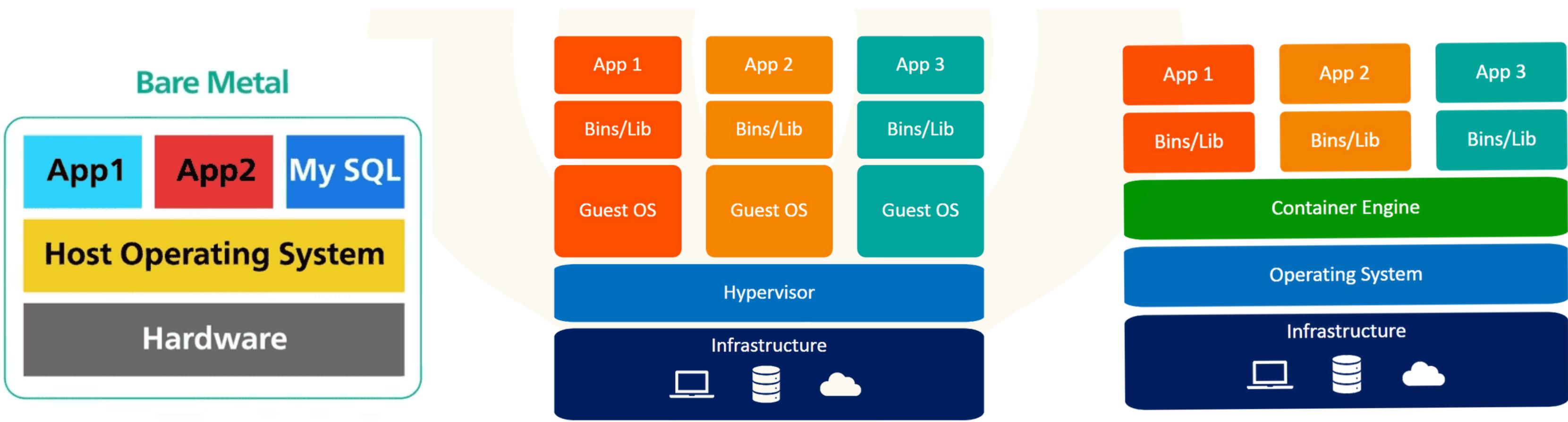


WHY CALLED CONTAINER 🤔



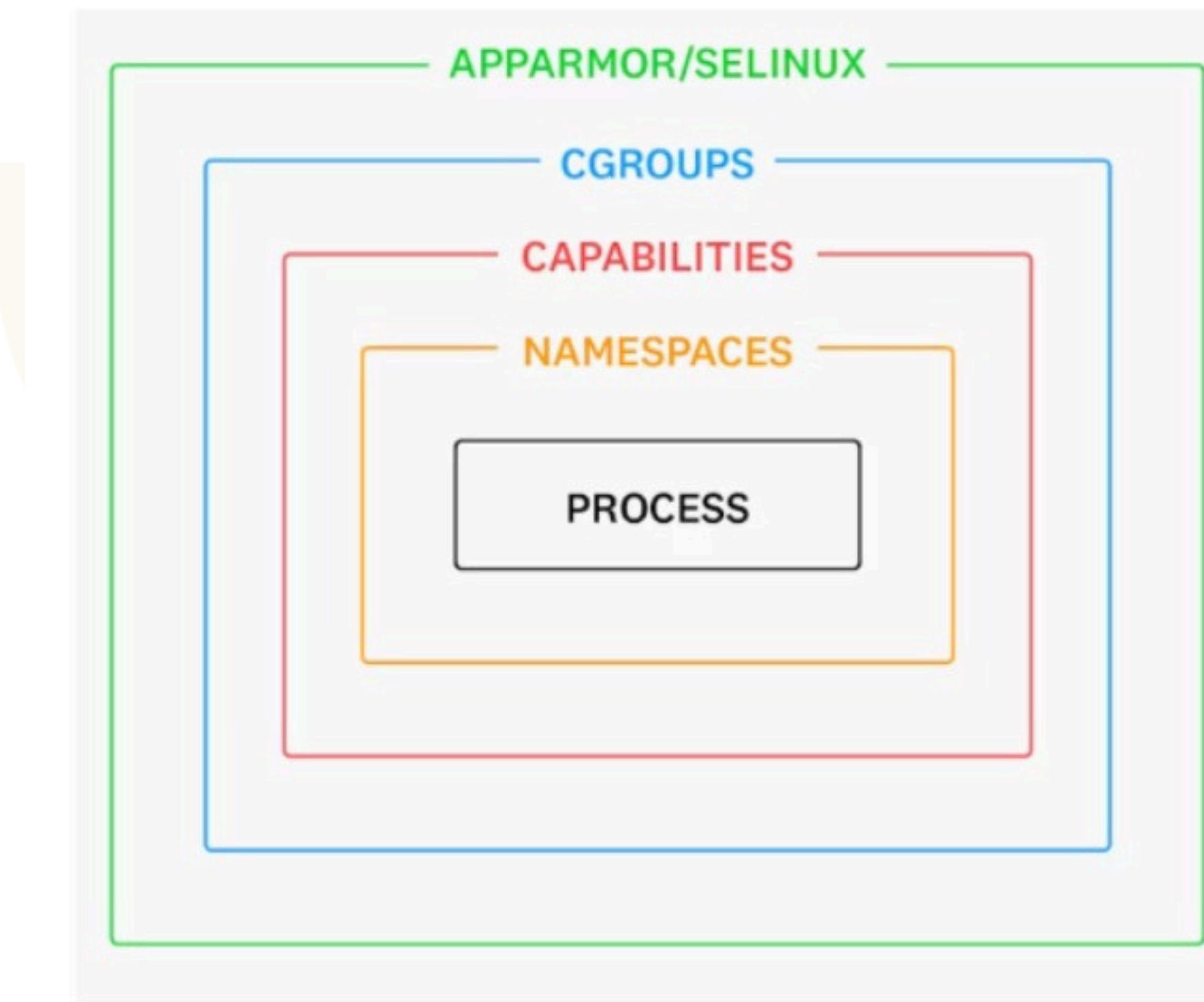


BARE METAL VS. VM VS. CONTAINER



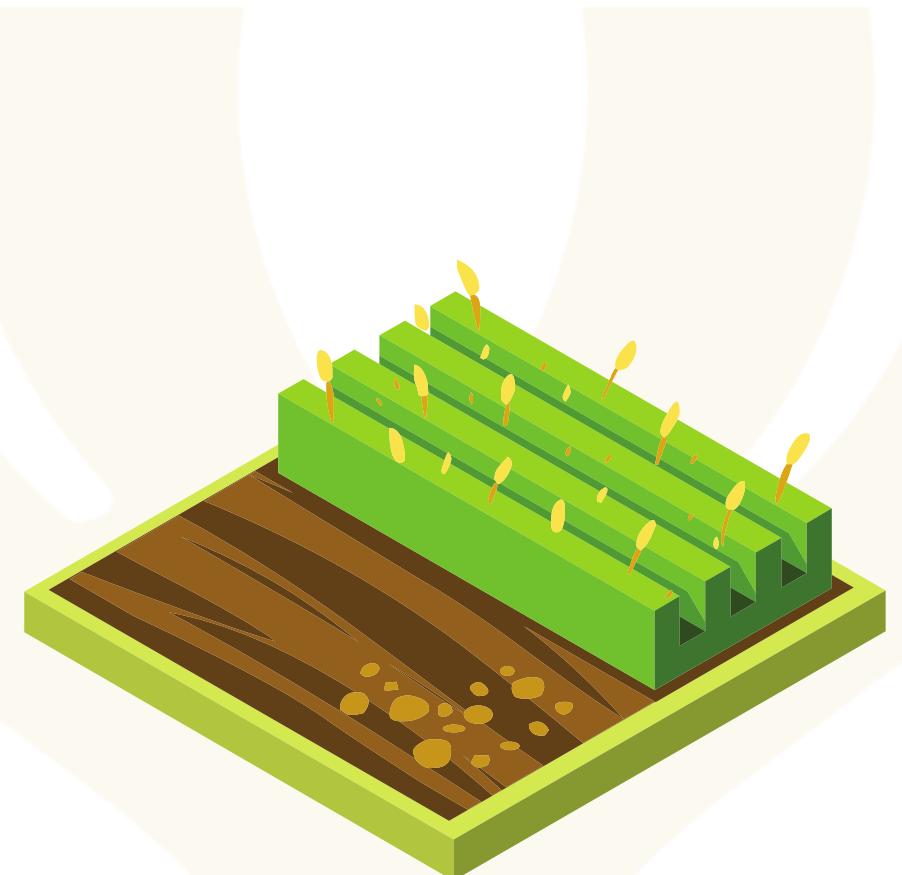


ISOLATED ENVIRONMENT





ONLY REQUIRED ENVIRONMENT





ONLY REQUIRED ENVIRONMENT



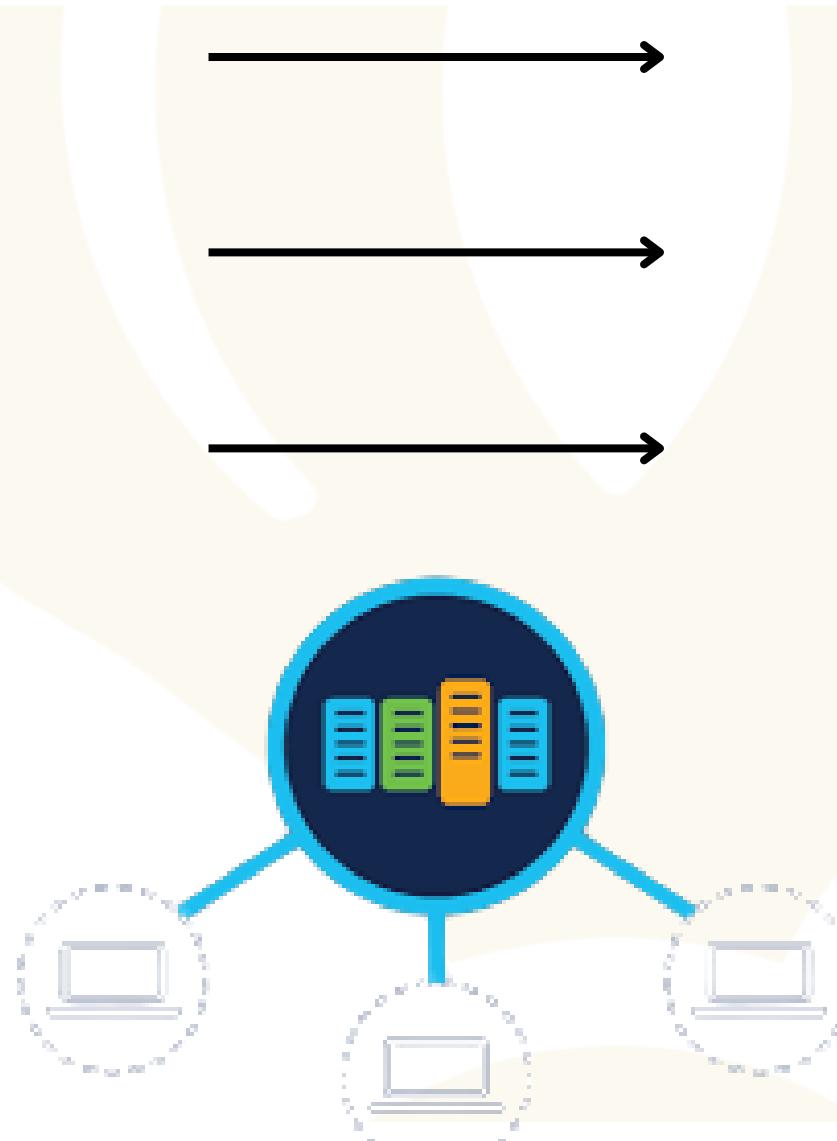


FROM VMS TO CONTAINERS

- Virtualization
- IBM
- VMware



- Containerization
- Sunmicro Systems
- Docker 2010 : 2013





Let's create VM



COMPARING VMS & CONTAINERS

Feature	Virtual Machine	Container
Boot Time	Minutes	Seconds
Resource Usage	High	Low
Scalability	Limited	High
OS Required?	Yes	No



You deserve a break!

🐳 MEET DOCKER

- The Heart of Containerization
- The tool that makes using containers easy!



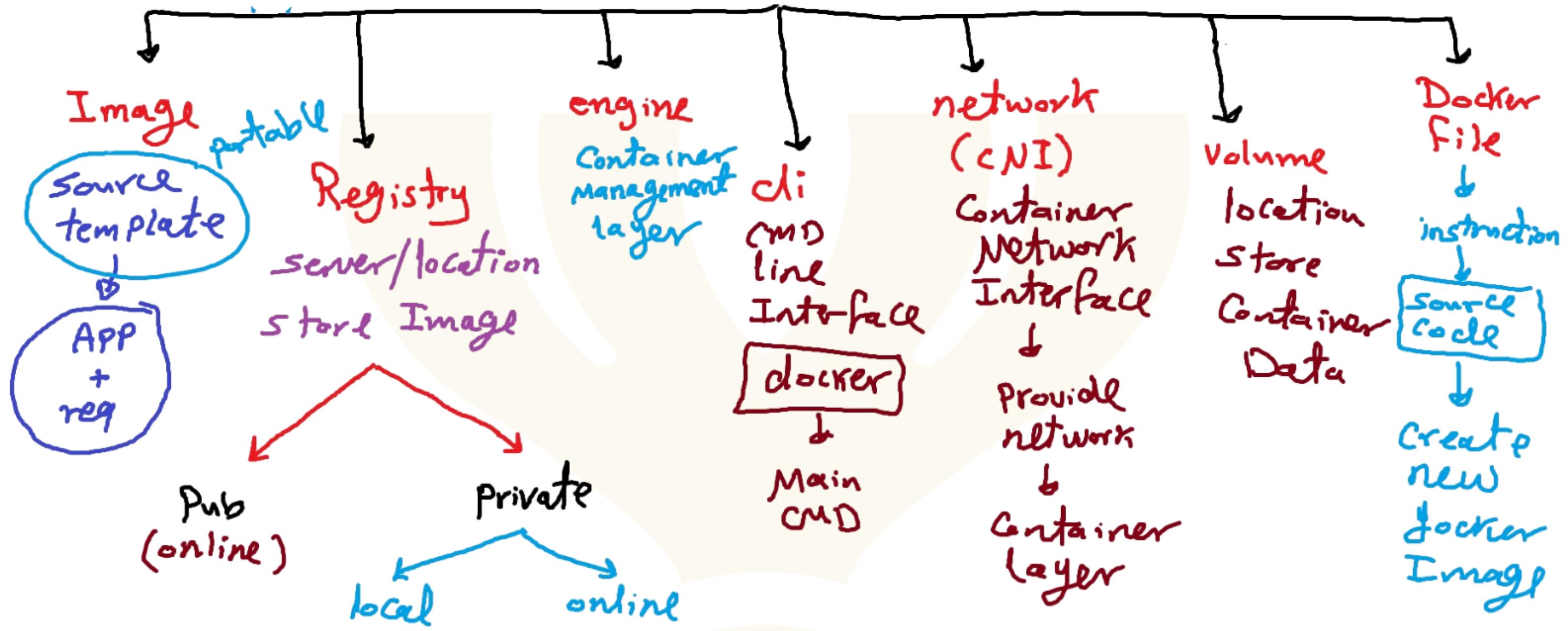


IMAGES VS. CONTAINERS





DOCKER COMPONENTS



Let's Practice!

Docs



DOCKER HUB!

- **Explore Docker Hub**



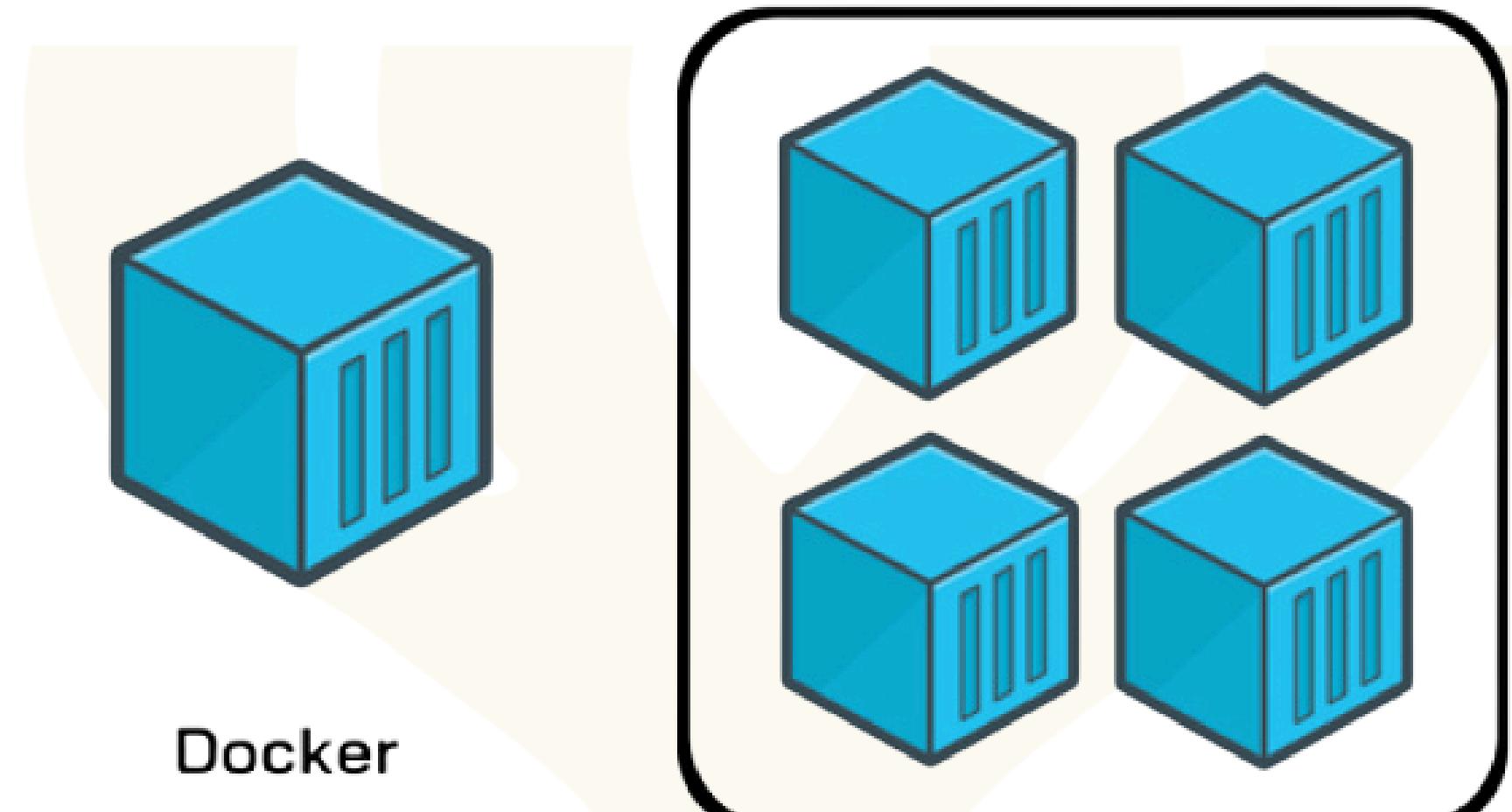
🐳 CONTAINERS USAGE

- Google, Netflix, Amazon use containers daily.





DOCKER COMPOSE!



Docker Compose

Let's Practice Again!





CONCLUSION & WHAT'S NEXT

Today, we learned:

- History of Containers.
- What containers are & why they're useful.
- How Docker & Docker Compose work.





REFERENCES

- [History of Containers.](#)
- [What containers are & why they're useful.](#)
- [How Docker & Docker Compose work.](#)
- <https://www.geeksforgeeks.org/virtualization-on-cloud-computing-types/>
- <https://docs.docker.com/compose/>



THANK YOU
FOR LISTENING

ANY QUESTIONS ?

