accenture technology

Learning and Knowledge Management

Module 2: Introduction to Docker

Module Objectives

At the end of this module, you will be able to:

- Explain Docker containers
- Describe the features, components and benefits of Docker

Topic List

- What is Docker?
- Docker: Features, Components, Benefits

Topic List

What is Docker?

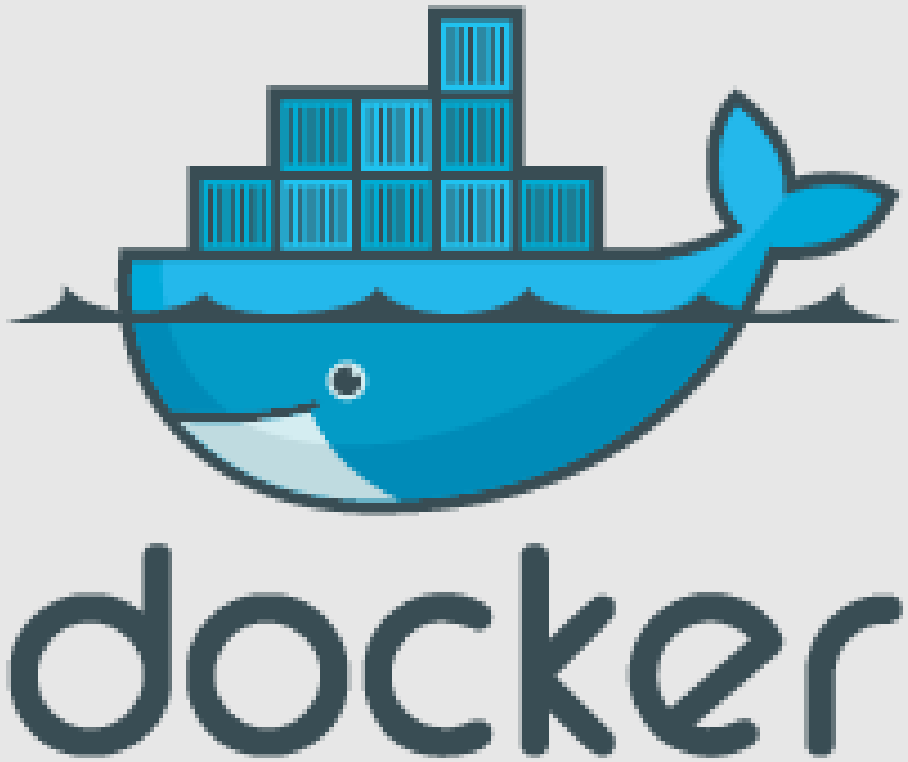
Docker: Features, Components, Benefits

What is Docker?

Docker is an open platform for developing, shipping, and running applications

Docker enables separation of applications from infrastructure so you can deliver software quickly.

With Docker, you can manage infrastructure in the same ways as managing applications



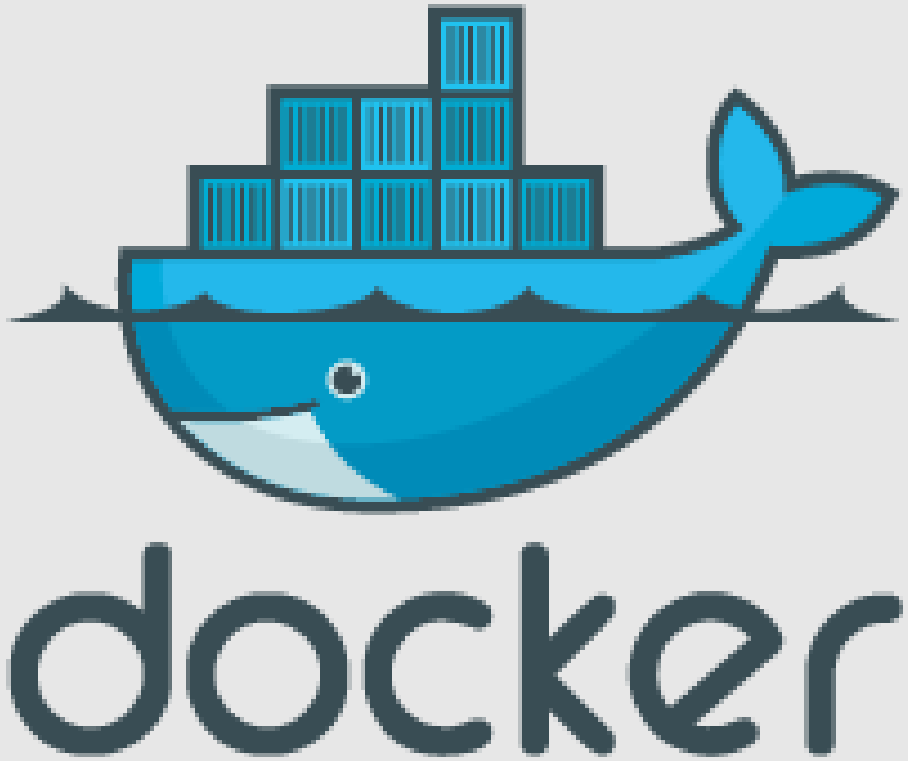
What is Docker? (3)

Docker ensures your applications and resources are isolated and segregated in an environment called containers. This allows the functioning of many containers on a given host.

Docker containers can run within host machines that are virtual machines.

Docker provides a platform for all the processes of containers. It helps:

- Develop an application and its components using containers.
- Distribute and test the application using the container unit.
- Deploy the application in a production environment—local data center, a cloud provider, or a hybrid of the two.



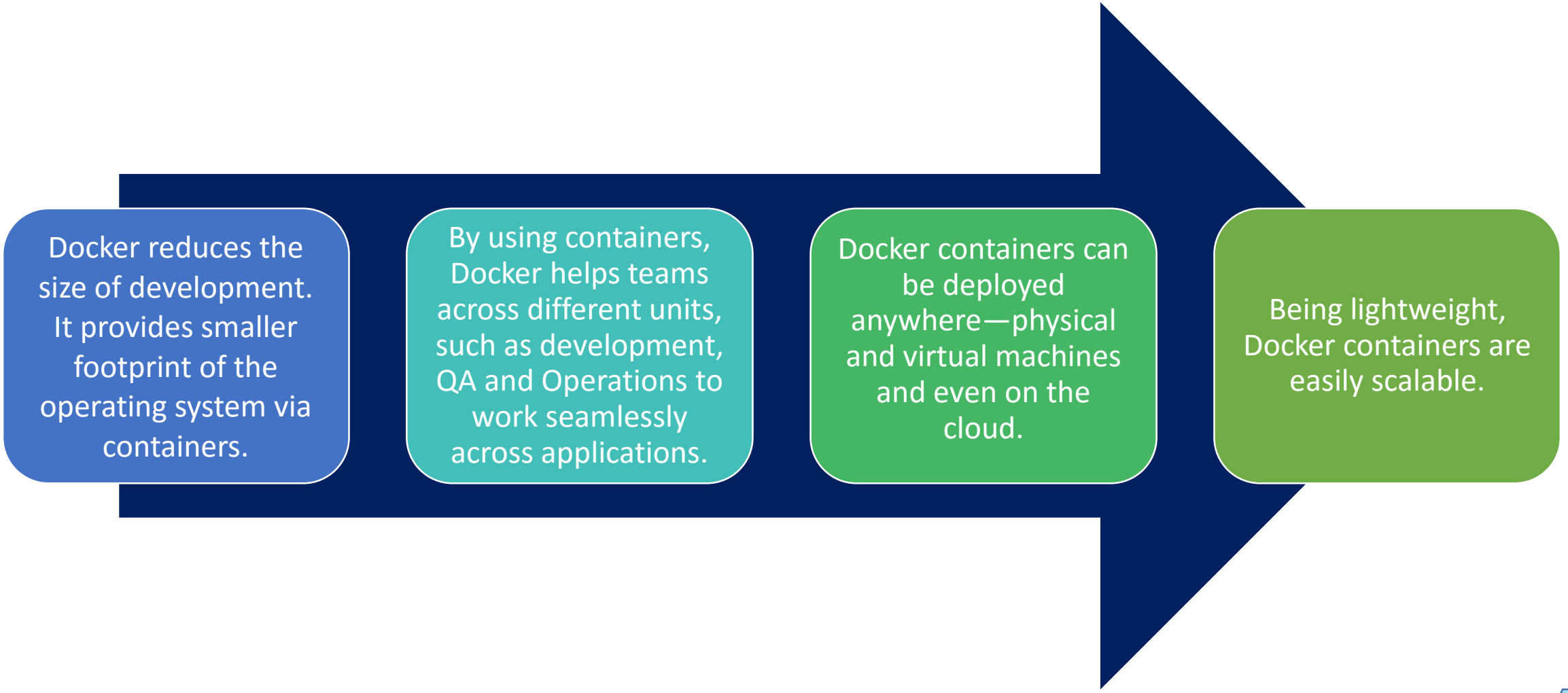
Topic List

What is Docker?

Docker: Features, Components, Benefits

Docker: Features, Components, Benefits (1)

Features of Docker



Docker: Features, Components, Benefits (2)

Components of Docker

Docker for Mac: Helps run Docker containers on the Mac OS

Docker for Linux: Helps run Docker containers on the Linux OS

Docker for Windows: Helps run Docker containers on the Windows OS

Docker Engine: Used for Docker images and creating Docker containers

Docker Hub: registry used to host various Docker images.

Docker Compose: Used to define applications using multiple Docker containers

Docker: Features, Components, Benefits (3)

Benefits of Docker

Fast and Consistent Delivery	Standardization in processes across multiple development and release cycles—every team member works in a production consistent environment using local containers which provide your applications and services. Containers help in continuous integration and continuous development (CI/CD) workflows.
Responsive deployment and scaling	Docker's container-based platform ensures highly portable workloads. It means Docker images are not system specific. They run the same no matter which server or whose laptop they are running on. Docker's portability and lightweight nature also make it easy to dynamically manage workloads, scaling up or simplifying applications and services per business needs on a real time basis.
Running more workloads on the same hardware	Docker is lightweight and fast. It provides a viable, cost-effective alternative to hypervisor-based virtual machines, so you can use more of your compute capacity to achieve your business goals. Docker is perfect for high density environments and for small and medium deployments where you need to do more with fewer resources.

Module Summary

Now, you should be able to:

- Explain Docker containers
- Describe the features, components and benefits of Docker

Thank You