



# DOCKER

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*Container Placement : Service Constraints*

## *Docker : Docker Swarm*

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- Docker Swarm automatically try and place your containers to provide maximum resiliency within the service.
- Place the Container on Specific node, for monitoring for application functionality reason.
- One way to Manage Container Placement is 'Service Constraints'.
- Service constraints are used to control the nodes a service can be assigned to.

## *Docker : Docker Swarm*

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- Service Constraints can be added to creation time, or add/remove at update time.
- By Creation of Hard Coded requirement, container placement fails if not matched.
- Multiple Constraints can be assigned to a single service.
- It supports key or key=value pair

## *Docker : Docker Swarm*

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- First Let's start the visualiser in Docker Swarm

```
docker run -it -d -p 8080:8080 -v /var/run/docker.sock:/var/run/docker.sock dockersamples/visualizer
```

- Create Service on Manager Node Only

```
docker service create --constraints node.role==manager  
<image_name>
```

- Add Label on any Node and define Constraints

```
docker node update --label-add=region=east-1-d  
<node_value>
```

```
docker Service create --constraint=node.labels.region=east-1-d  
d <image_name>
```

- Remove Constrains and add new constrains on running service

```
docker service update --constraint-rm <Constraint added on  
service> --constraint-add <new constraint>  
<service_name>
```

*Will see you in Next Lecture...*

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*Thank you!*

A close-up photograph of a hand holding a black marker, writing the words 'Thank you!' in a cursive script on a white surface. The hand is positioned on the right side of the frame, with the marker tip touching the paper. The background is plain white.

*See you in next lecture ...*