



DEMYSTIFYING OPENSHIFT

and Kubernetes

WHAT IS A CONTAINER?



CONTAINERS

A software container bundles software and its essentials for consistent performance. It's lighter than a virtual machine and ensures isolated, reliable operation.



ABOUT THE PROJECT

1-12

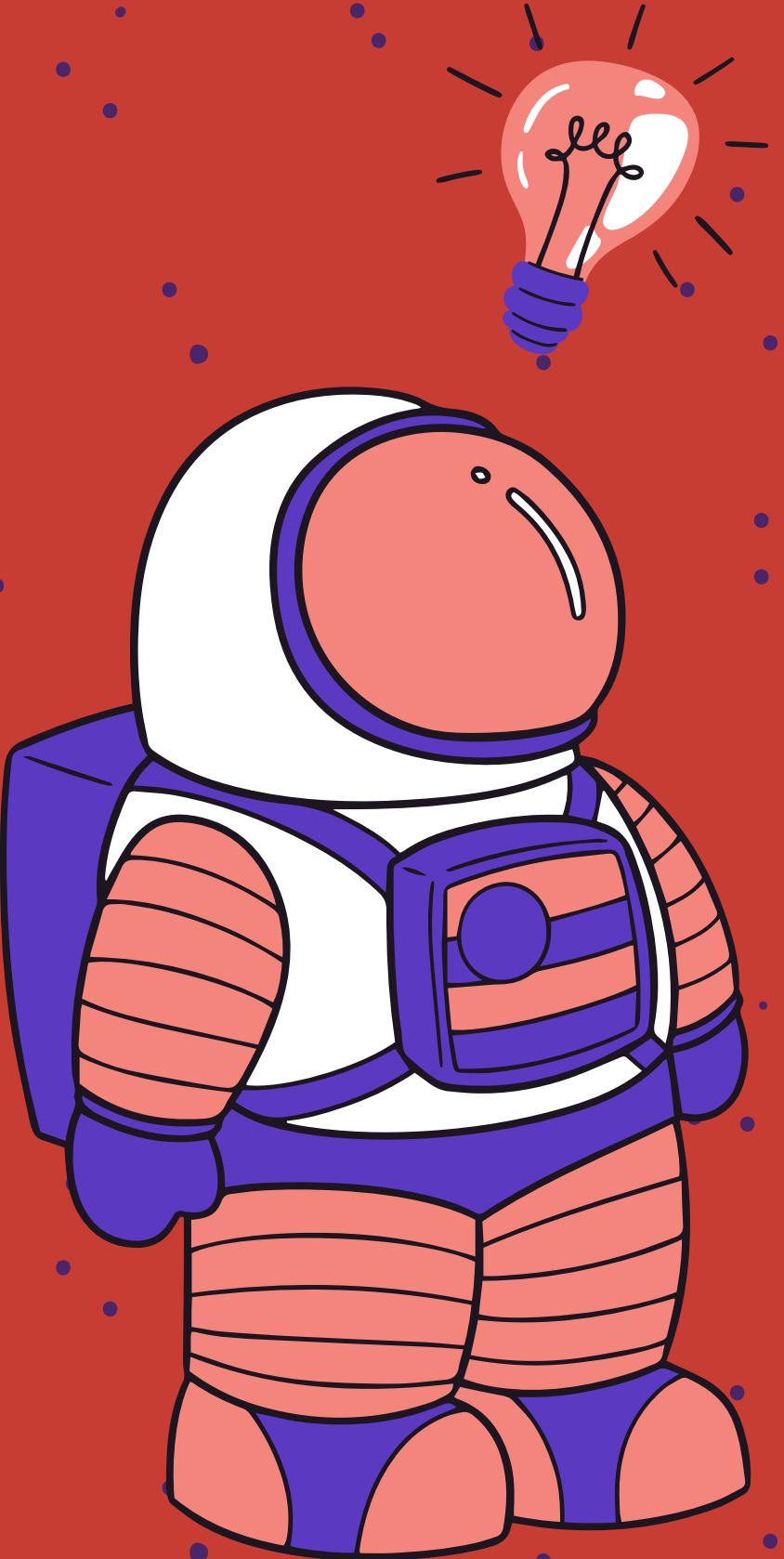


Building your Lego Set

Each Page will have its own function that will correspond to a building instruction. For Example the current slide will go through Instructions pages 1-12.

If you are curious where to start Always look for the wrench.





OPENShift IS DIFFICULT?

The concepts may seem complex and the barriers to entry intimidating, today we're committed to overcoming these hurdles together.

LEGO CAR



THE INSTRUCTION MANUAL

(Master Nodes)

This is the instruction booklet that came with your LEGO set. It guides how to build and maintain the car.

THE LEGO BUILDER

(Worker Nodes)

This is you, or whoever is following the instructions to build and update the car.

CAR COMPONENTS

(Pods)

your LEGO car is made of separate sections (engine, cabin, trunk). Each of these is like a pod in the cluster. Each section (pod) can be built with several LEGO bricks (containers)



INSTRUCTION MANUAL

The Instruction Manual (Master Node) contains all the details needed to build your LEGO car from scratch

It provides step-by-step guidance on how to put together each part of the car and how they fit together. The Master Node in Kubernetes/OpenShift contains the control plane that manages the cluster.





INSTRUCTION MANUAL

Directions (API Server): Tells you (the builder) what pieces to use and where to put them.

Blueprints (etcd): Keeps track of what the car should look like.

Assignment (Scheduler): Decides who should build what part of the car.

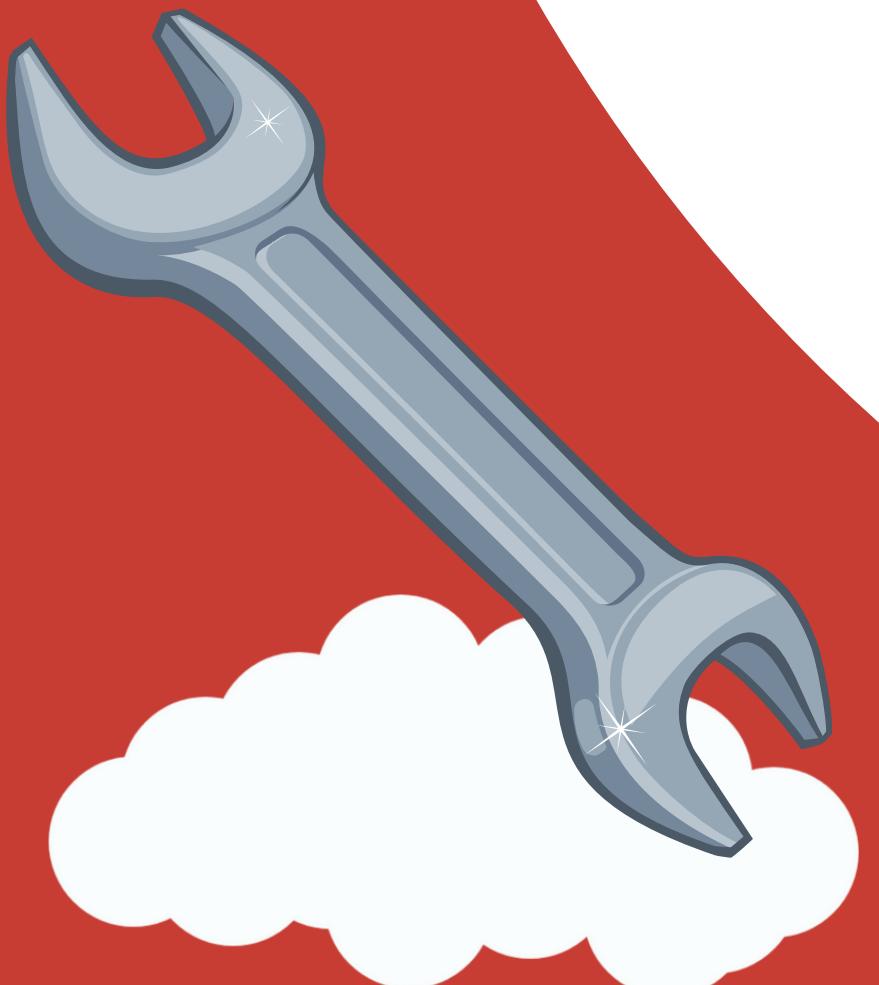
Checklist (Controller Manager): Makes sure everything is built correctly and also fixes it if not.



THE BUILDER

You! As the Builder, Are the Worker Nodes in a
Kubernetes Cluster

Worker nodes in a Kubernetes/OpenShift cluster do the work of running
applications (as containers within pods), keeping them running, and
communicating with the master node about what they're doing.



THE

BUILDER



1

2

3

4

BUILDING

(Running Containers)

- You follow the instructions from the manual (Master Node) and start putting bricks (containers) together to make different parts of the car (Pods).

UPDATING

(Running Containers)

This is you, or whoever is following the instructions to build and update the car.

REPORTING

(Node Status)

You tell the manual (Master Node) what you've done, what you're doing, and if there's any issue with the LEGO car.

FIXING

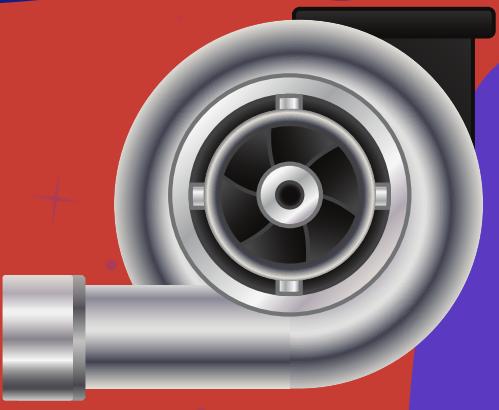
(Health Checks)

If a part of the car breaks (a pod fails), you fix it.



Parts(Pods)

Car Sections (Pods): Different parts of the LEGO car, like the engine or the wheels, are like pods in Kubernetes or OpenShift.



Each Component of the car (Containers)

Each part of the car is made of many LEGO bricks. These bricks are like containers in a pod.



46-51

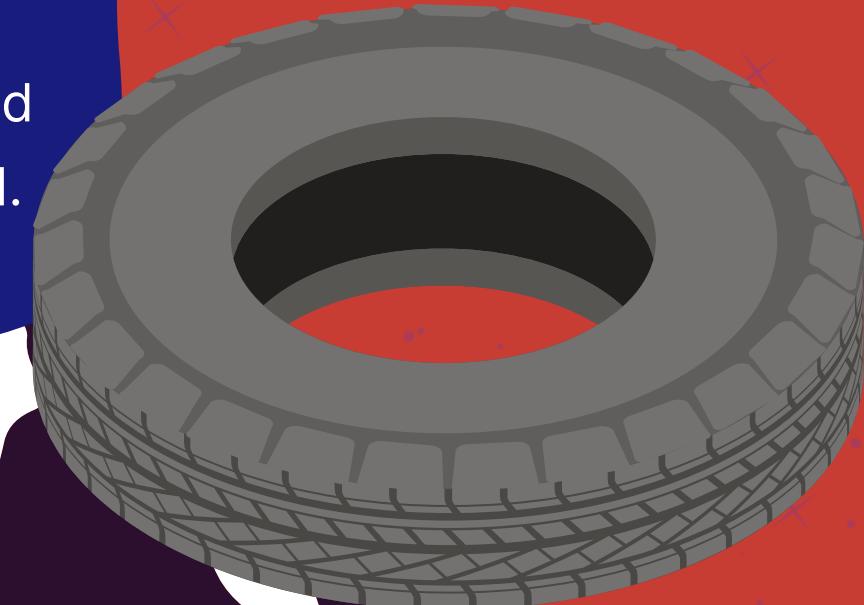
CAR PARTS



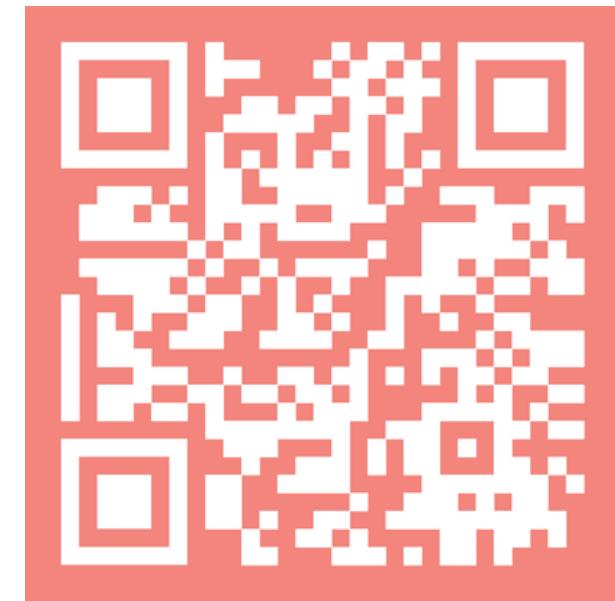
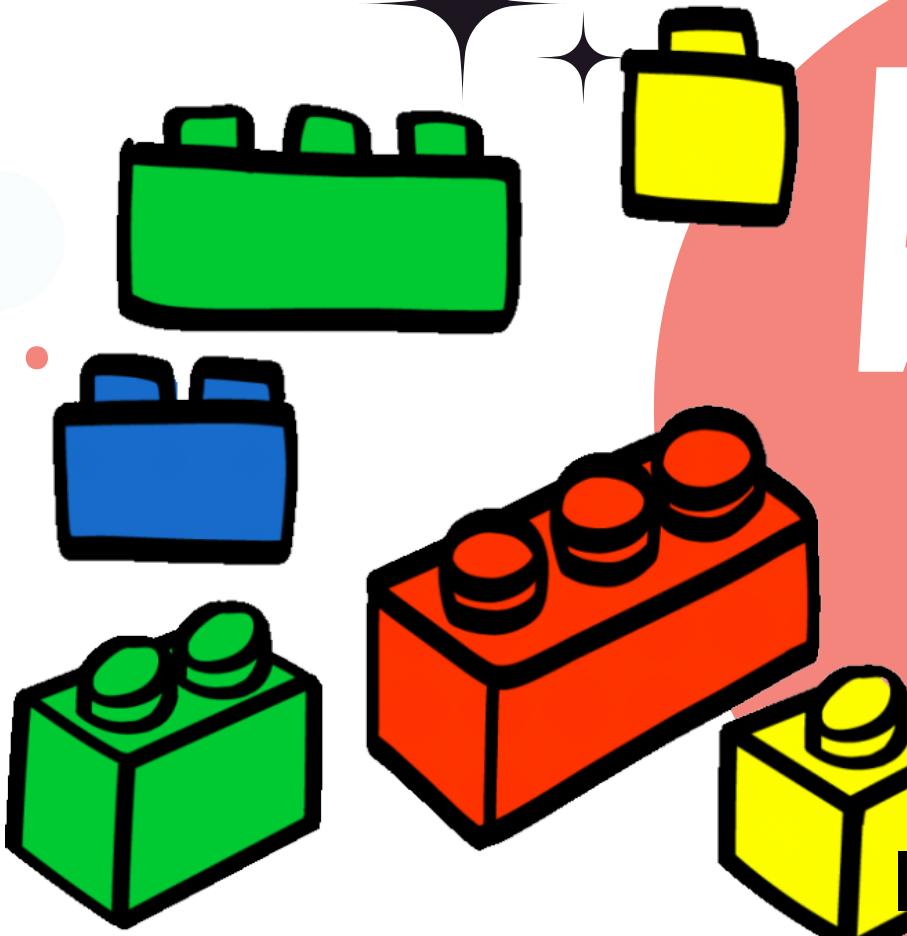
pods (like parts of a car) are small but important pieces of your Kubernetes/OpenShift cluster (the whole car). They can have one or more containers, and can be created, scaled, and deleted as needed.

Replacing Parts (Pod Lifecycle):

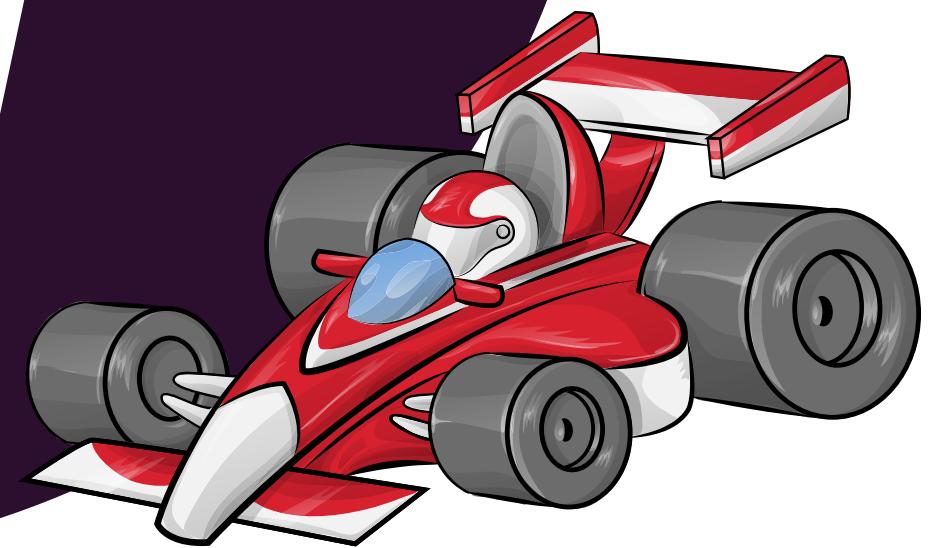
If a car part gets old or broken, you replace it. Same with pods, they can be deleted and new ones created as needed.



VERIFY YOUR WORK?



**THANK
YOU**



LEARN MORE

Get in Contact

Feel free to Reach out to see
how we can help at

RedHatSe@TDSynnex.com

Get Hands On

Start with Learning More
about how OpenShift can
accelerate your Business needs
here.

<https://developers.redhat.com/learn.openshift>

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