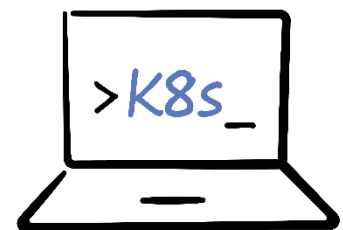




For  
Companies

# GETTING STARTED WITH KUBERNETES

A day of world class training from Nigel Poulton,  
designed to build your confidence and  
prepare you for the real world!



nigelpoulton.com

Mind-blowing **Kubernetes** training

# Learn Kubernetes. You'll get the theory and get your hands-on. If you want to get started this training is perfect for you!



By the end of the day you'll be set up and ready to start using Kubernetes in your job!

## OVERVIEW

If you're new to Kubernetes and want to learn, or brush up with the basics, this training is perfect for you.

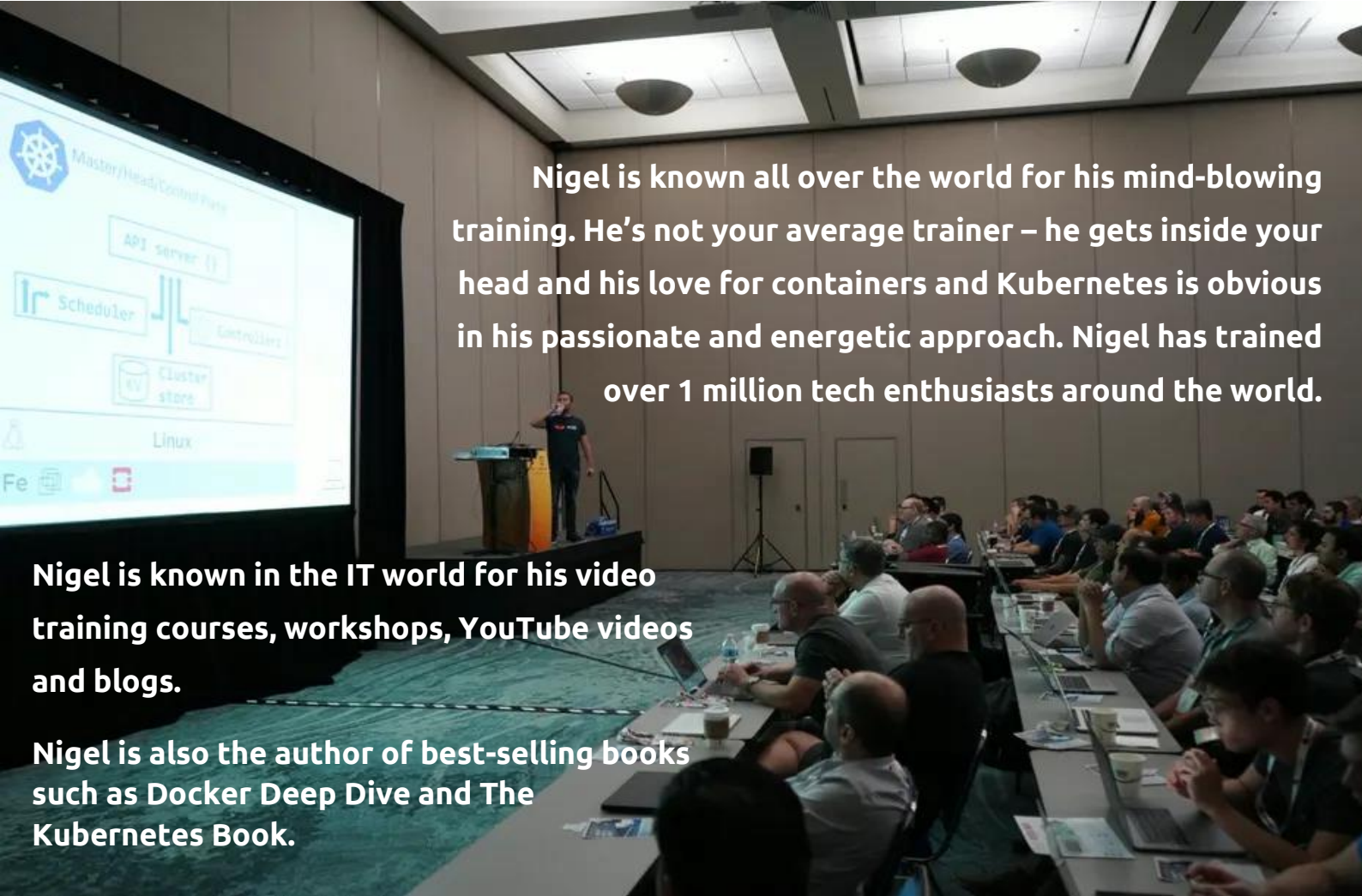
We start out with the basics so that everyone is on the same level. We demystify things like, "*what the heck is a **cloud-native microservices app***", and what do we mean when we say things like "*Kubernetes is a **cluster***" and "*Kubernetes is an **application orchestrator**...*".

Once the groundwork is laid, we introduce important Kubernetes primitives such as **Pods**, **Services**, and **Deployments**. Throughout the training, every concept is clearly explained, with accompanying diagrams, animations and examples.

**There's also lots of hands-on examples.** You'll deploy a stateless app, break it, scale it up and down, connect to it from the internet, perform rolling updates, health checks, and implement resource requirements and limits.



## ABOUT THE TRAINER



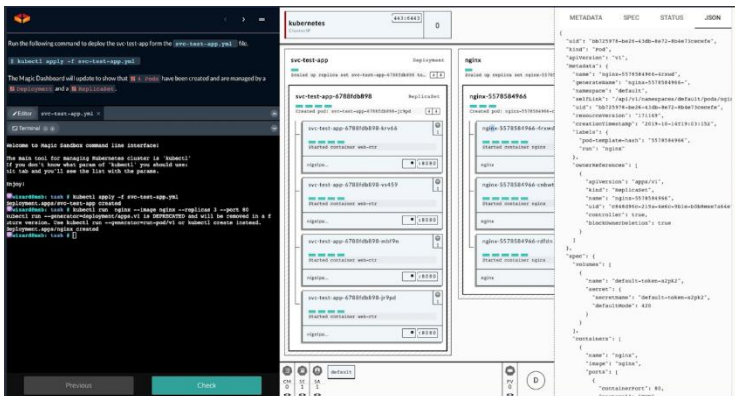
Nigel is known all over the world for his mind-blowing training. He's not your average trainer – he gets inside your head and his love for containers and Kubernetes is obvious in his passionate and energetic approach. Nigel has trained over 1 million tech enthusiasts around the world.

Nigel is known in the IT world for his video training courses, workshops, YouTube videos and blogs.

Nigel is also the author of best-selling books such as Docker Deep Dive and The Kubernetes Book.

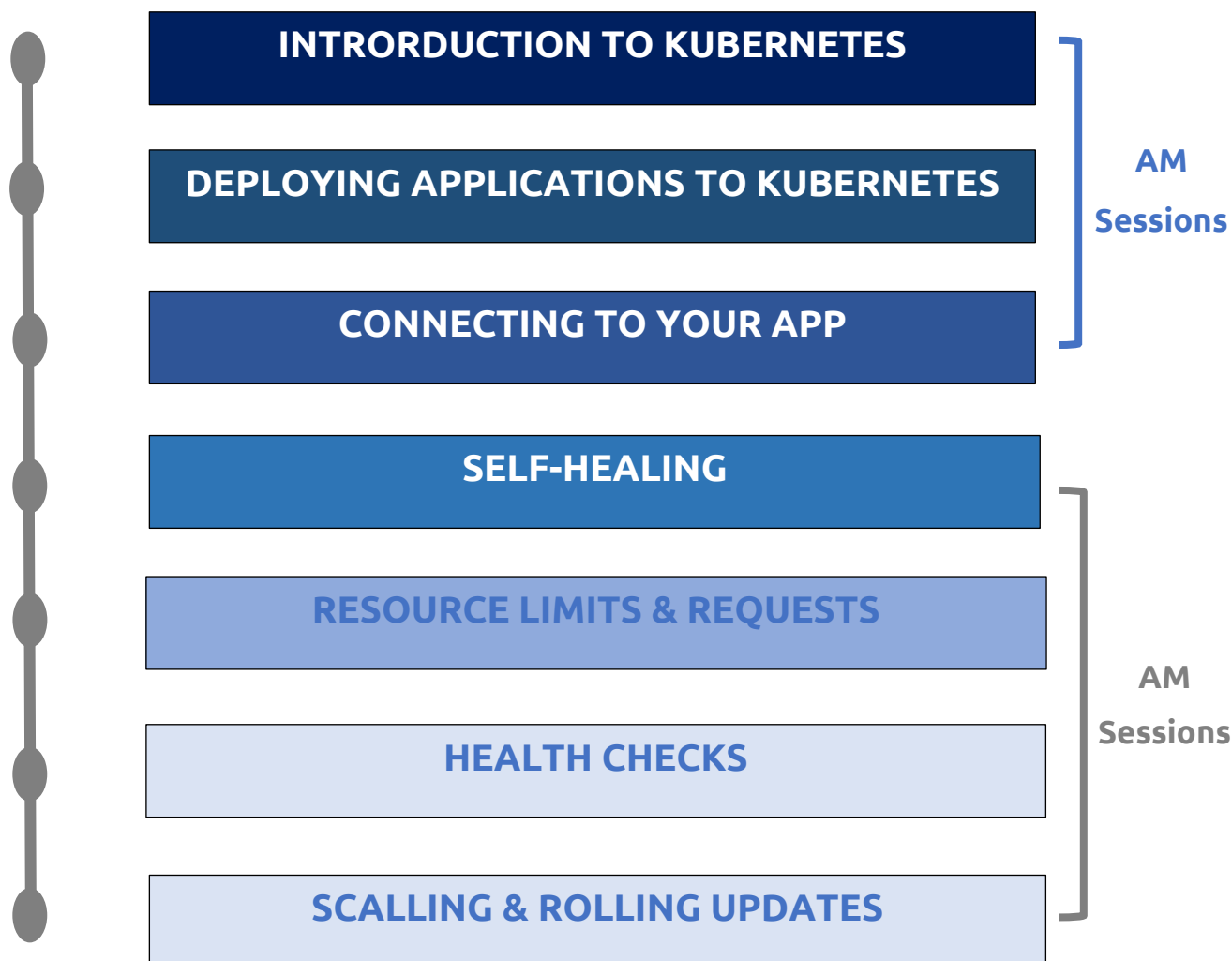
## THE MAGIC SANDBOX (MSB) PLATFORM

We use it for our training days, and you can have it!



All labs run on the MSB interactive Kubernetes learning platform where every attendee has their own secure multi-node cluster with live dashboard. Annual MSB subscriptions unlock the potential of your engineers through access to curated Kubernetes lessons and challenges on the cutting edge MSB hands-on training platform. Every subscription allows an engineer to learn at their own pace on real infrastructure. Team tracking features allow progress to be monitored and tracked.

## AGENDA



## SKILLS YOU'LL LEARN

- ✓ Kubernetes architecture and patterns
- ✓ Kubernetes networking model
- ✓ Application health checks
- ✓ Resource management
- ✓ Self-healing
- ✓ Scaling and update operations

# WHAT YOU WILL LEARN IN EACH SESSION

## INTRODUCTION TO KUBERNETES

This session brings you up-to-speed with the fundamental architecture, objects, and patterns of Kubernetes. You'll learn cluster architecture such as masters and nodes, design fundamentals such as Pods, Deployments and Services, as well as patterns such as declarative configuration.

## DEPLOYING APPLICATIONS TO KUBERNETES

This section takes a web server that is already packaged as a Docker container, and deploys it to Kubernetes as a standalone Pod. You'll learn how to write a simple Kubernetes YAML file and use the kubectl command-line utility to deploy it to your cluster. You'll also learn the benefits and drawbacks of Kubernetes Pod.

## CONNECTING TO YOUR APP

Kubernetes provides a powerful networking construct called a Service. You'll learn how it provides reliable networking for internal and external access to applications (from inside the cluster and from outside). You'll learn the properties and architecture of Kubernetes Services, as well as demonstrate several examples, including integrating with a cloud-based internet facing load-balancer.

## SELF HEALING

Now that you have a working application, you'll test various failure scenarios to see how Kubernetes copes. You'll be introduced to Kubernetes Deployments and Replica Sets allowing your application to automatically self-heal from software and hardware failures.

## RESOURCE LIMITS AND REQUESTS

Resource management is a vital best-practice in real-world Kubernetes environments. In this section of the workshop, you'll learn how to allocate and control resources are allocated to your Kubernetes applications. You'll set upper and lower limits for CPU and memory. Learn how this enables intelligent scheduling of workloads.

## HEALTH CHECKS

Kubernetes provides several health checks that allow you determine whether your application is running. These are vital when it comes to updates and rollbacks, as well general network load-balancing. You'll learn how to configure various health checks and see them in action.

## SCALING AND ROLLING UPDATES

This section will take your application, scale it up and down, and perform some rolling updates. You'll see the impact of the health checks configured in earlier sections of the workshop.

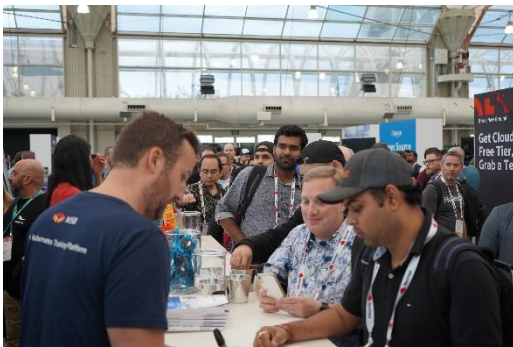


# WHAT PEOPLE ARE SAYING ABOUT NIGEL'S TRAINING



**You've gotta love Nigel Poulton. The knowledge and being straight to the point with no BS.. He is the real deal in the new cloud world!**

**Luca**

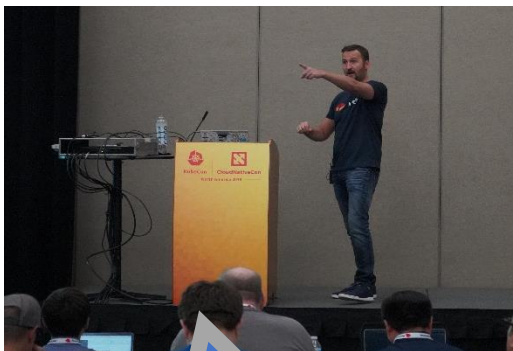


**"@nigelpoulton That was what I needed. You sir are a gifted teacher. Thank you so much."**

**Propupal**

**Thank you so very much @nigelpoulton for your training "getting started with Kubernetes". I'm really excited to learn more about Kubernetes. Congrats! I've been doing a lot of others training, but yours is the better!!! [SIC]**

**Marcos Riquetta**



**"@nigelpoulton if you don't know it yet, let me tell you. You're an absolute gem of a teacher. You bring magic."**

**Rohit Kumar**



**A massive thank you to @nigelpoulton for his clear and concise (and often funny) Kubernetes training. It makes Kubernetes a little less scary.**

**Savvas Stephanides**