### Introduction to Devops

* How to introduce DevOps to existing Agile teams
* Simple case studies
* The IT Core Chronic Conflict
* DevOps Roles
* DevOps Defined
* Core Concepts

### How Does DevOps Work

* Continuous Integration
* Continuous Deployment
* Continuous Delivery
* Continuous Testing
* Continuous Monitoring
* Automation

### Provisioning Infrastructure

* Amazon AWS
  + Deployment strategicies
  + Automating provisioning
* Ansible
  + Managing mutliple machines
  + Writing simple Playbookst
* Docker
  + Deployment through registry
* Kubernetes
  + Pod and Replication controller
  + Replication

### High Availability

* Redundancy Planning
* Testing and using automatic failover
* Metrics for HA
* Amazon AWS HA.

### Lab 1. Build a development, QA and production infrastructure using Ansible, Docker and Kubernetes

### Build and Test Automation ​

* Jenkins
* Selenium
* Testing strategy for deployment

### Lab 2. Build, test and deploy a web application using the DevOps pipeline

### Monitoring and Log Management​

* Nagios
  + Hosts and group hosts
  + Monitoring
  + Notifications
* Elkstack
* Jmeter

### Lab 3. Build and deploy monitoring and log management tools into the pipeline.