# Infrastructure as Code (IaC)

A brief overview.


- **What is it?**
  A methodology, that basically boils down to one thing - Provision everything (Data storage, Networking, VMs, pipelines, images, containers, etc.) with code from a repo, not with clicks in GUI
- **How does it work?**
  There are countless ways to apply the IaC methodology, but in most cases its applied through a combined use of an SCM engine (e.g git) and a wide array of different tools, with notable examples like: Terraform (to provision cloud resources); Ansible (to among others streamline configuration management for VMs)

- **Advantages (a few examples)**
  Speed – changes made to IaC Infrastructure can be made quickly, deployed quickly and most importantly deployed in bulk
  Consistency – changes and the state of IaC infrastructure are easily trackable and when applied in bulk are always the same.
  Easily versionable infrastructure – Previous configurations and states of IaC infrastructure are easy to reproduce, because they are kept in versioned repositories.
  Alignment with DevOps – All of the things listed above enable easy automation and in effect adherence to DevOps methodologies.

- **Disadvantages**
  Cost of introduction – this is the only notable disadvantage that exists for IaC, but it only applies to already existing environments that were created without IaC principles applied.