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GCP For DevOps

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AGENDA

Overview to the Google Cloud

→ CI/CD →

Continuous Integration
And
Continuous Deployment
with Google Cloud Platform

DevOps tools GCP

→ DEMO

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Google Cloud Platform

SERVICES ARE PROVIDED BY

Google

USES SAME INFRASTRUCTURE OF RELAIBLE INTERNAL SOFTWARES

SERVICES OFFERED INCLUDE

NETWORKING

STORAGE

MACHINE LEARNING TOOLS

CLOUD MANAGEMENT

DEVELOPERS TOOLS

SECURITY

BIG DATA

INTERNET OF THINGS

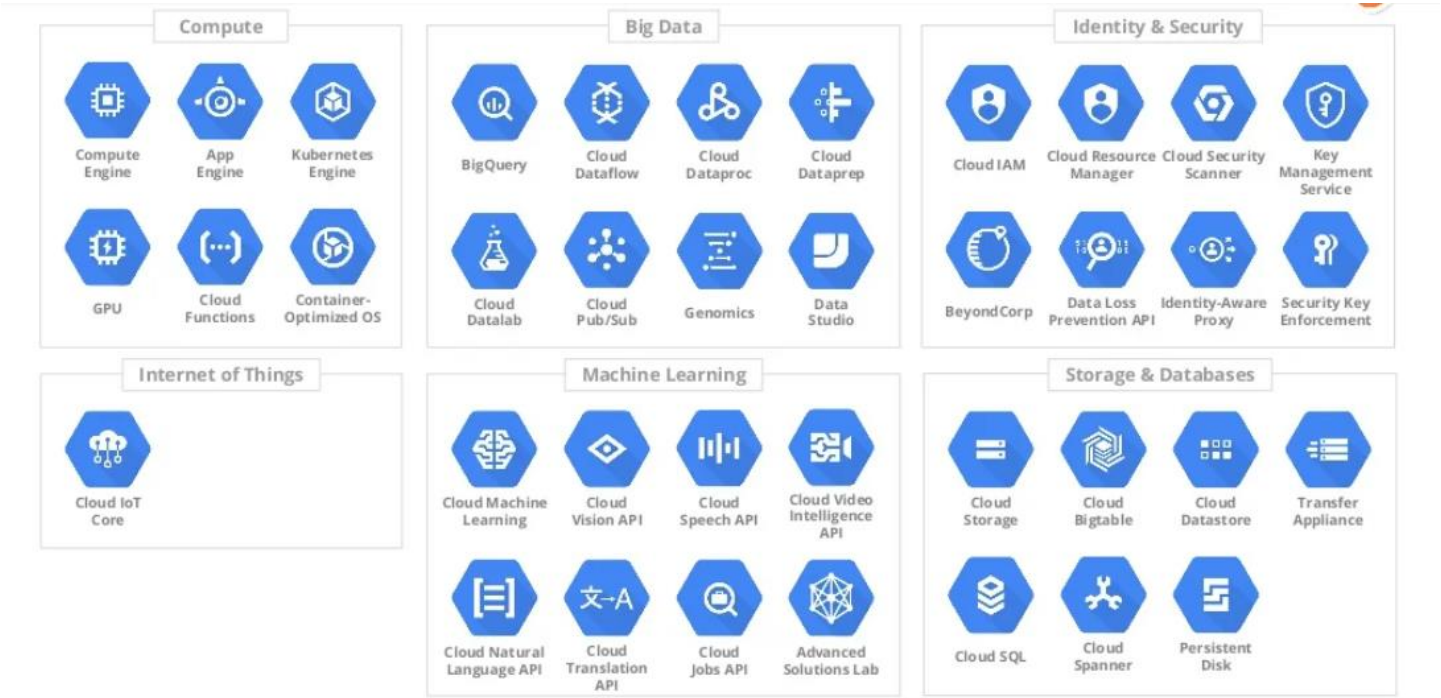
COMPUTE ENGINES

COST EFFICIENT WITH COMMITMENT OF GOOGLE

Google Data Centers

- Google Cloud will continue expanding into the following regions:
  - Doha (Qatar)
  - Turin (Italy)
  - Berlin (Germany), Dammam (Kingdom of Saudi Arabia)
  - Tel Aviv (Israel).

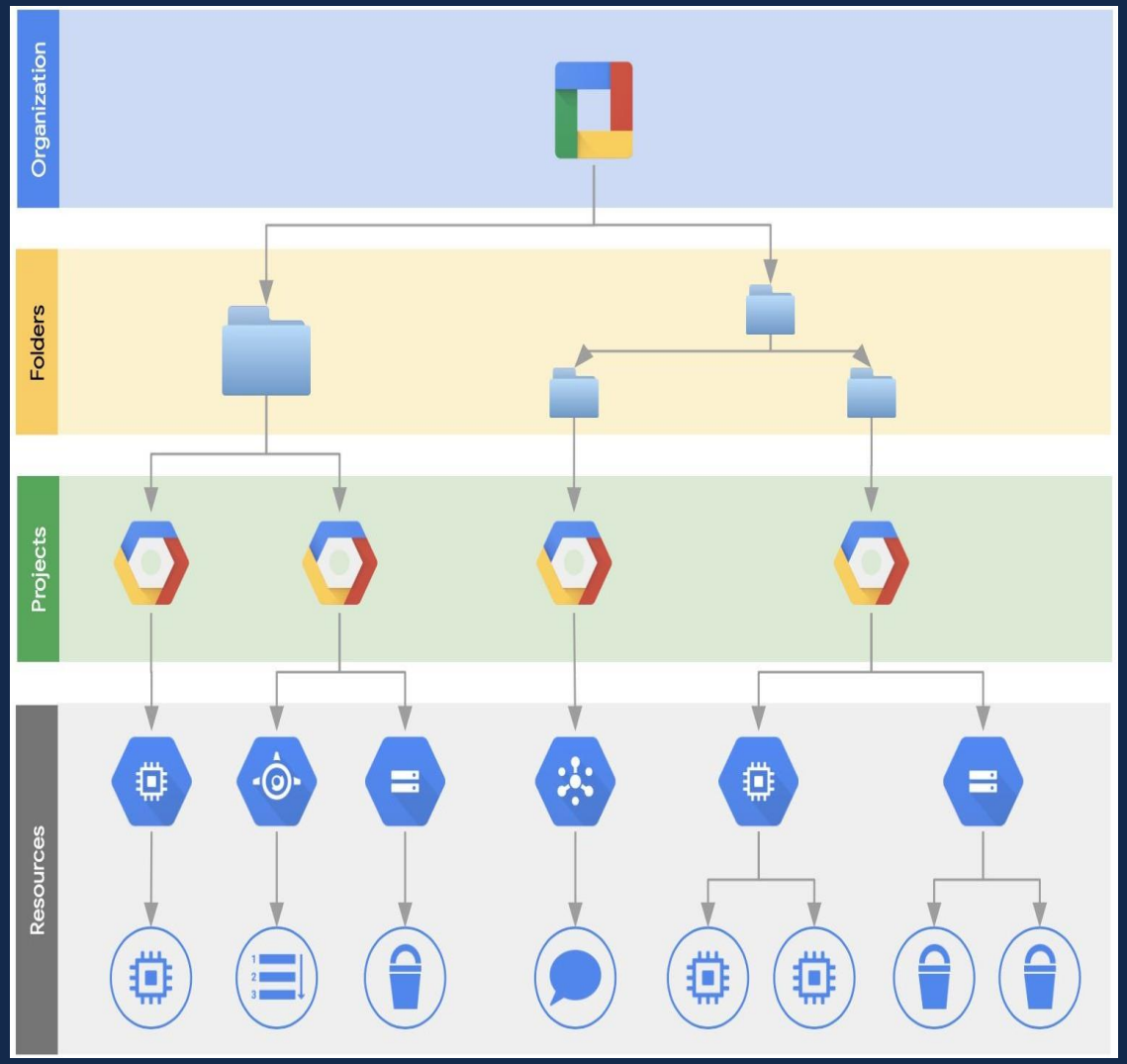
Services



More than 100+ services

Organization Structure

GCP Resource Management



- Cloud Resource Manager provides project management & IAM functionality.
- The top level component is the GCP organization.
- An organization is tied to a GSuite OR a Cloud Identity account
- Most of the available resources are deployed into a project.
- A project is the main isolation “container” in GCP

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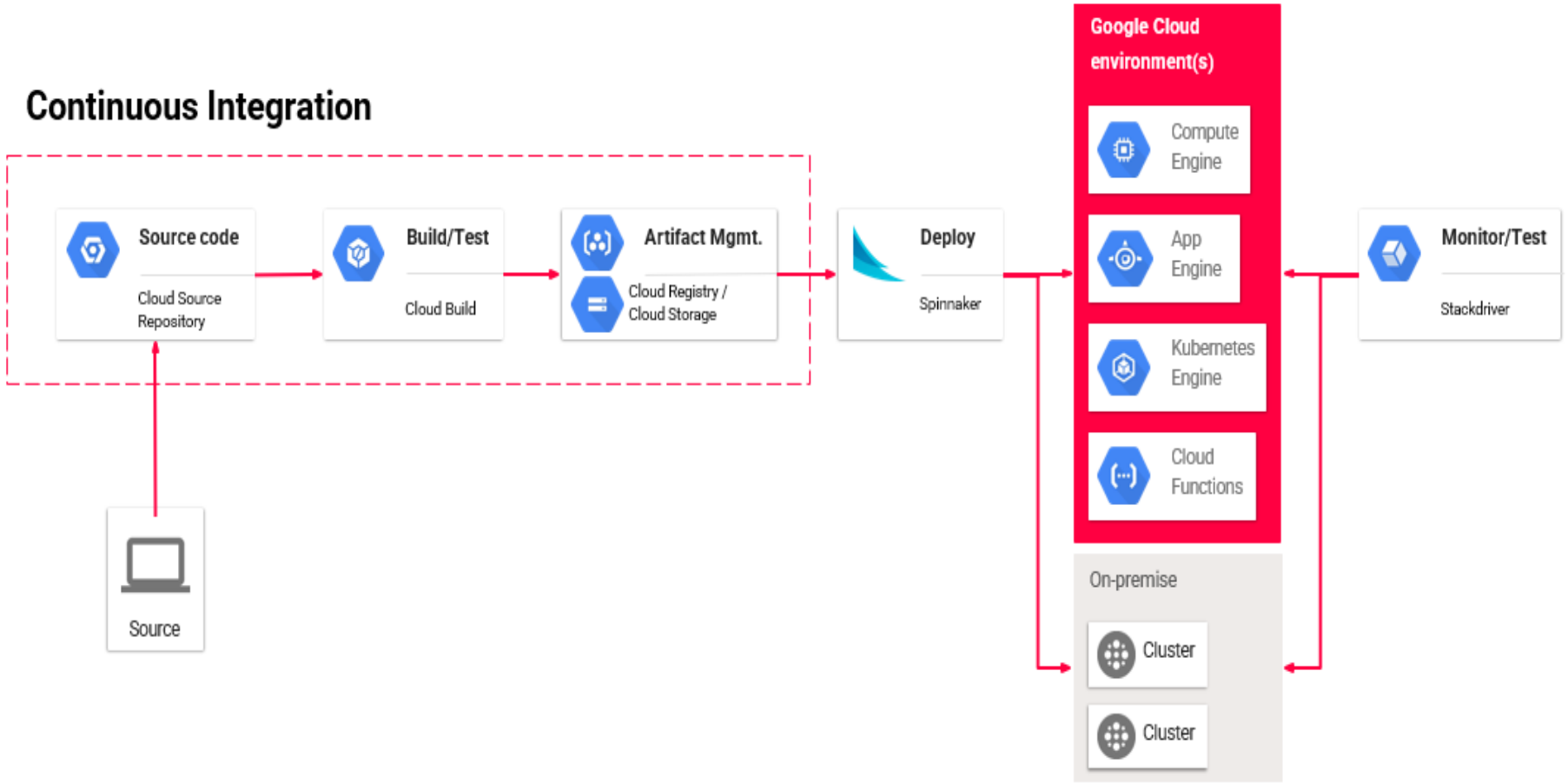
CI/CD Using GCP

Continuous Integration and Delivery on GCP



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Cloud Source Repository

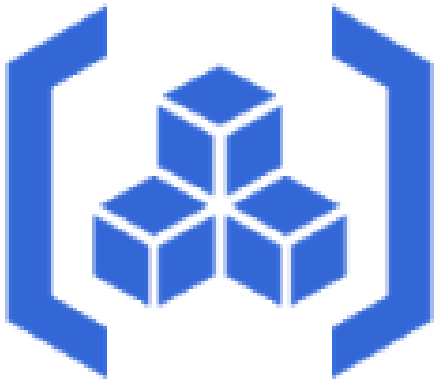
Google Cloud Source Repositories provides Git version control to support collaborative development of any application or service, including those that run on Google App Engine and Google Compute Engine

Google Cloud Platform

Cloud Build API

- Cloud Build, Google Cloud's continuous integration (CI) and continuous delivery (CD) platform, lets you build software quickly across all languages. Get complete control over defining custom workflows for building, testing, and deploying across multiple environments such as VMs, serverless, Kubernetes, or Firebase.

Artifact Registry



- With Artifact Registry you can store and manage your build artifacts (e.g. Docker images, Maven packages, npm packages), in a scalable and integrated repository service built on Google infrastructure.

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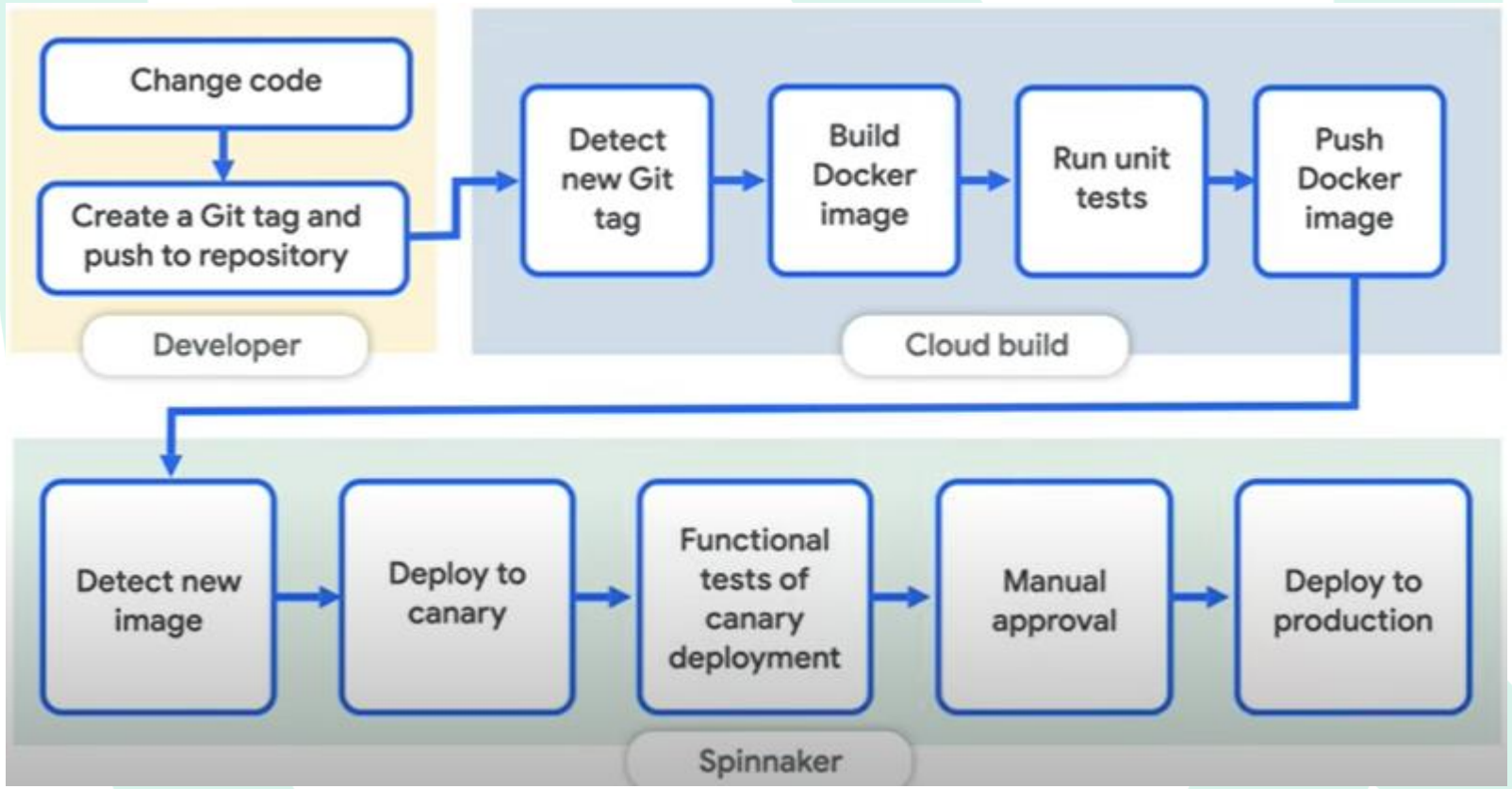
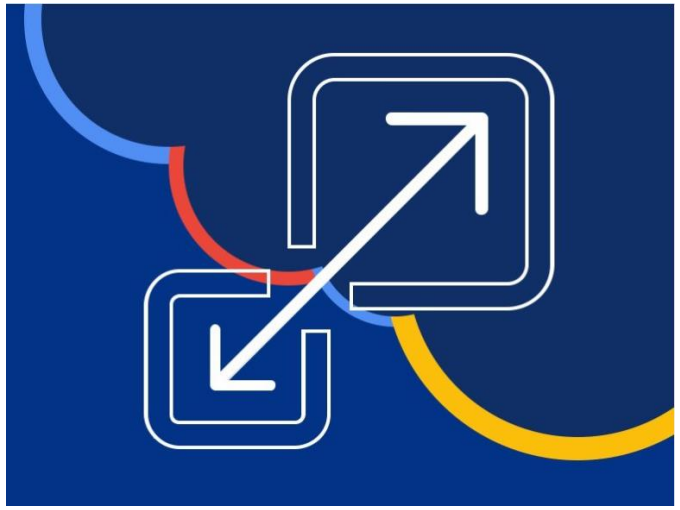
Spinnaker

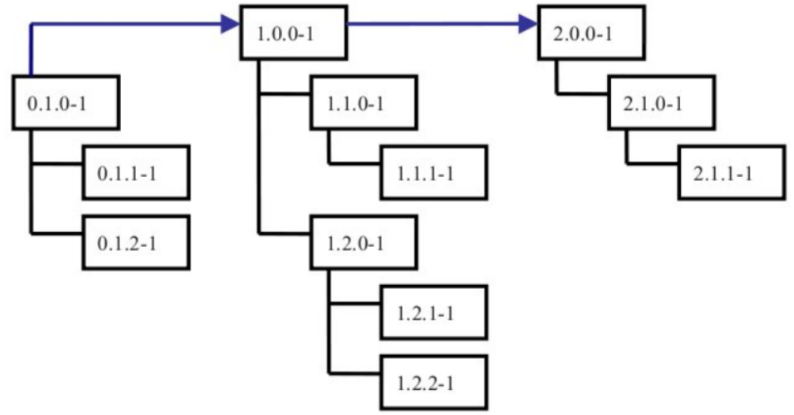
Spinnaker is a free and open-source continuous delivery software platform originally developed by Netflix and extended by Google.



App Engine



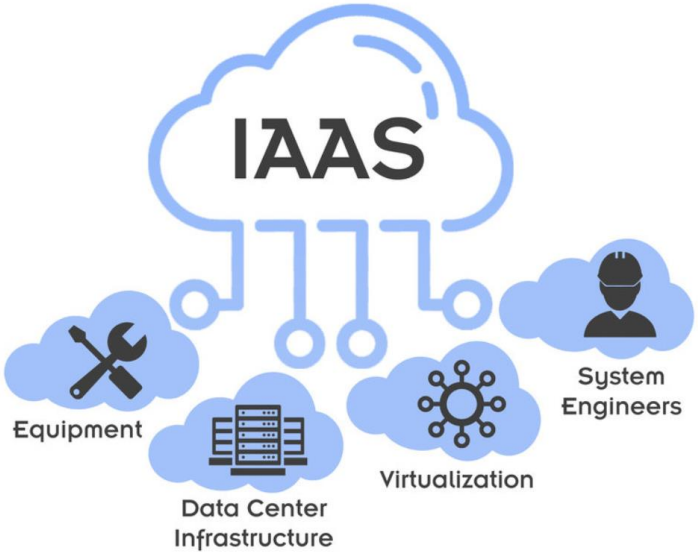
Autoscaling

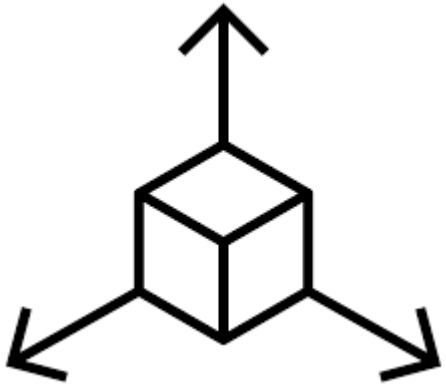


Versioning

Compute Engine

- IAAS
- More Flexible
- Chose OS and type of Hardware

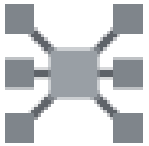




Flexible

Monitoring

Operations
Logging

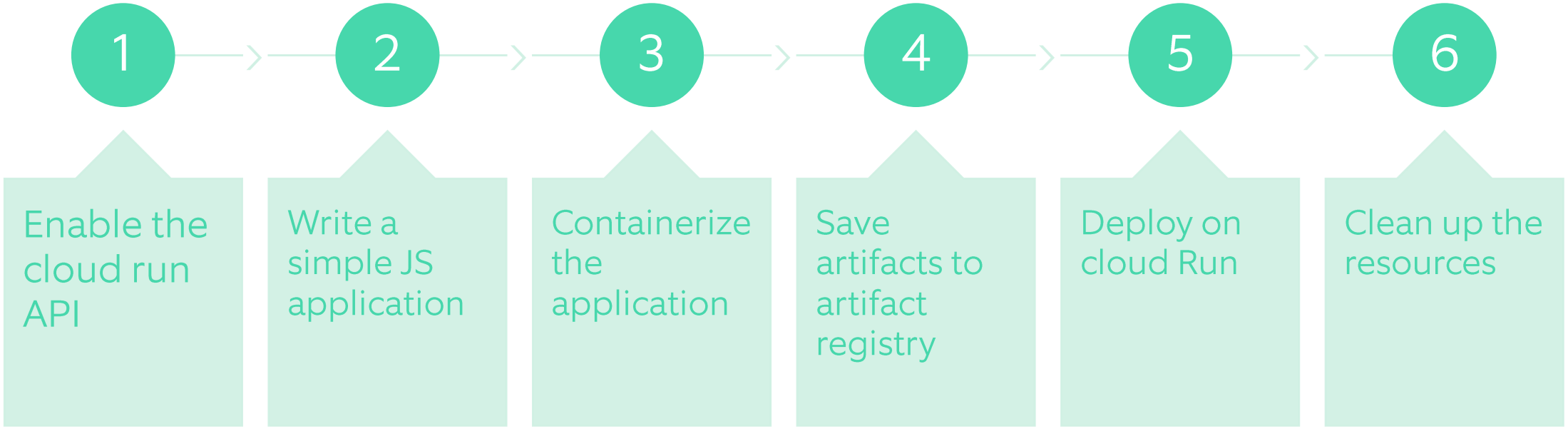


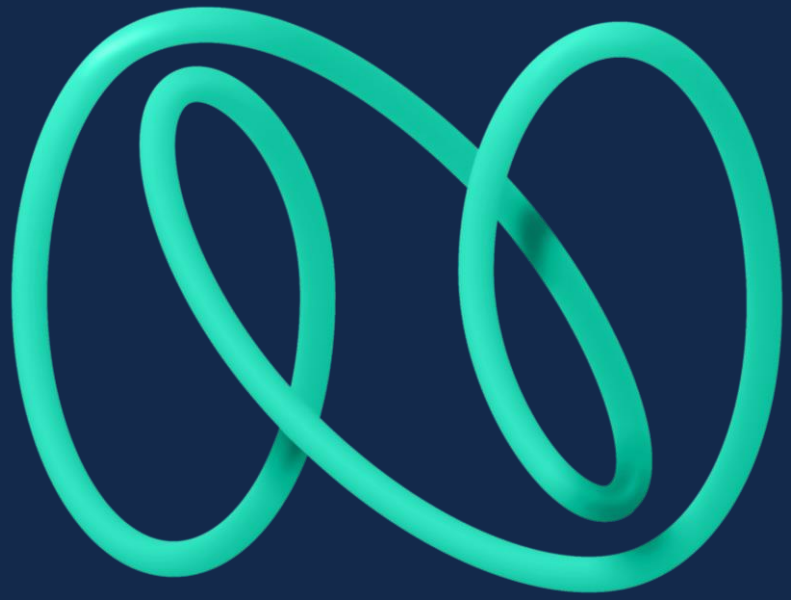
Debugger

Error Reporting

DEMO

“Hello World” Cloud run application



QUESTIONS ??

Thanks!!