RMOUG

TRAINING DAYS **2021**

Reach for the Summit | February 8–11

Deploying & Maintaining a Polyglot Microservices App on a Managed Kubernetes Solution

rmoug.org

Adao Oliveira Junior

Senior Principal Product Manager at Oracle

Former **Solutions Architect** for Oracle A-Team

Working with Developer Adoption and Experience for Cloud Native solutions

Agenda

1. Introduction
2. Prerequisites: Enable your Free Trial tenancy
3. Lab 1: Setup your Cloud Environment
4. Lab 2: Deploy the Microservices App
5. Lab 3: Monitoring your deployment
6. Cleanup

Introduction

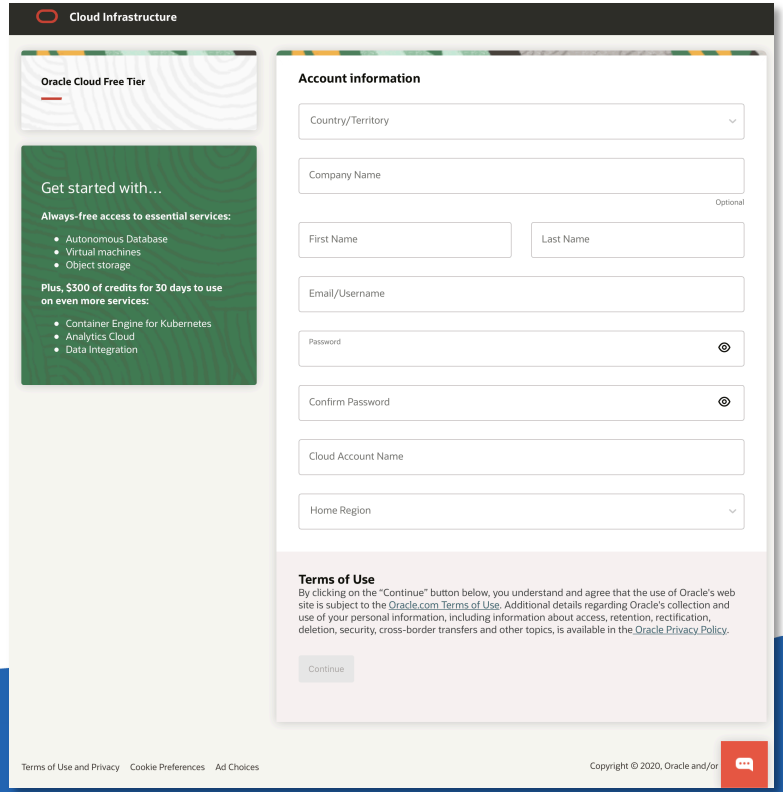
Learn how to deploy applications into a cloud-native microservice-based development framework leveraging the Oracle Cloud Native solutions. You will deploy an eCommerce application with polyglot microservices for each component of a highly scalable architecture leveraging Kubernetes and Oracle Cloud Infrastructure components.

Introduction

Objectives

- Create a Kubernetes Cluster on OKE
- Deploy an eCommerce microservices-based solution to Kubernetes (MuShop App) using helm
- Explore your App
- Expose your app publicly
- Monitor your Kubernetes Cluster and the deployed App
- Clean up the deployments

Enable your Free Trial



- Participants on the allowlist for easy registration
- Access to a wide range of Oracle Cloud services for 30 days, including Databases, Analytics, Compute, and Container Engine for Kubernetes
- $500 credit
- Always Free resources on your home region
- Up to eight instances across all available services
- Up to 5 TB of storage

Enable your Free Trial

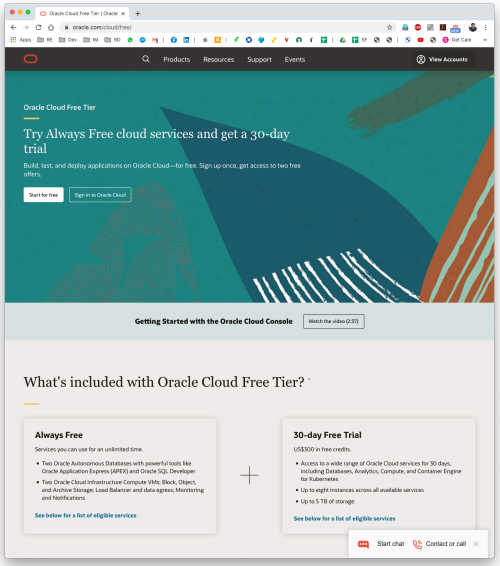
Attendees with reserved seats go to: http://bit.ly/rmoug-trial

All others: https://go.oracle.com/rmoug2021

Register by February 15th to enjoy the $500 promo

More about your Free Trial

and Always-Free resources



https://www.oracle.com/cloud/free/

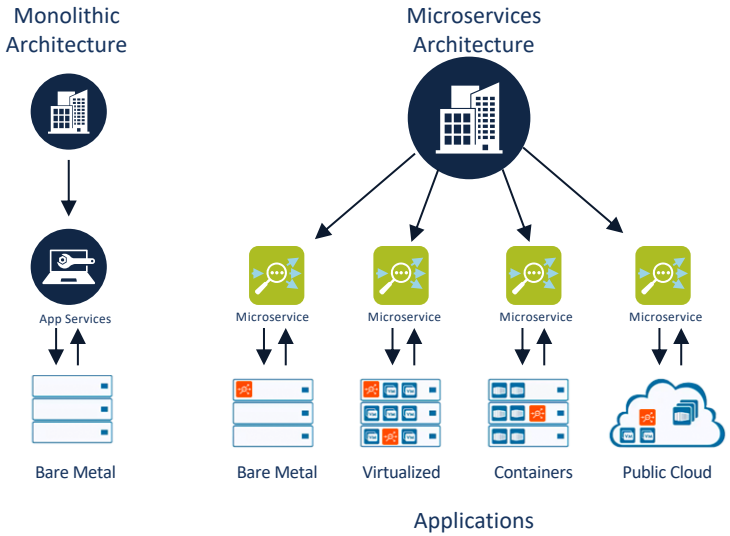
https://www.oracle.com/cloud/free/faq.html

https://docs.cloud.oracle.com/en-us/iaas/Content/FreeTier/freetier.htm

https://docs.cloud.oracle.com/en-us/iaas/Content/FreeTier/resourceref.htm

Oracle Cloud Infrastructure Regions

Why should business leaders care?



> "Cloud native technologies empower organizations to build and run scalable applications in modern, dynamic environments such as public, private, and hybrid clouds. Containers, service meshes, microservices, immutable infrastructure, and declarative APIs"
>
> **CNCF Cloud Native Definition**

Cloud Native helps:

1. Independently invest and evolve features according to business needs.
2. Break Monolithic applications into resilient, manageable, observable systems.
3. Improve developer productivity, make high impact changes frequently.
4. Open Source technologies make solutions portable across clouds and avoids lock-in.

Governance	Security	Management	Automation
IAM, Tagging, Cost Analysis	IAM, Audit, KMS, CASB	Monitoring, Notifications, Alarms	Resource Manager, Ansible

Analytics / Integration / SOA Suite / Identity / Management / Content / API Platform / Developer / Visual Builder / Digital Assistant/
DataFlow / Data Science / Data Safe

Containers
Containers and Kubernetes

Fully managed, certified Kubernetes service with Docker containers

Data Movement
Storage appliance, Data Transfer

Software NAS gateway, data ingest service with full chain of custody (HDD or appliance)

Autonomous Database
Transactions, Data Warehouse

Fast provisioning. Automatic tuning, patching, securing. 99.995% availability.

Cloud Native
Events, Streaming, Functions

Fully-managed FaaS, event-triggered functions, high-volume data ingest, notifications

Compute
Bare metal/VM, CPUs/GPUs

Up to 64 CPU cores, 8 GPUs, 768 GB RAM, 51 TB local NVMe SSD, 5M IOPS, AMD and Intel processors

Storage
NVMe, Block, File, Object, Archive

Predictable IOPS Block Storage for up to 98% less, storage for whole lifecycle

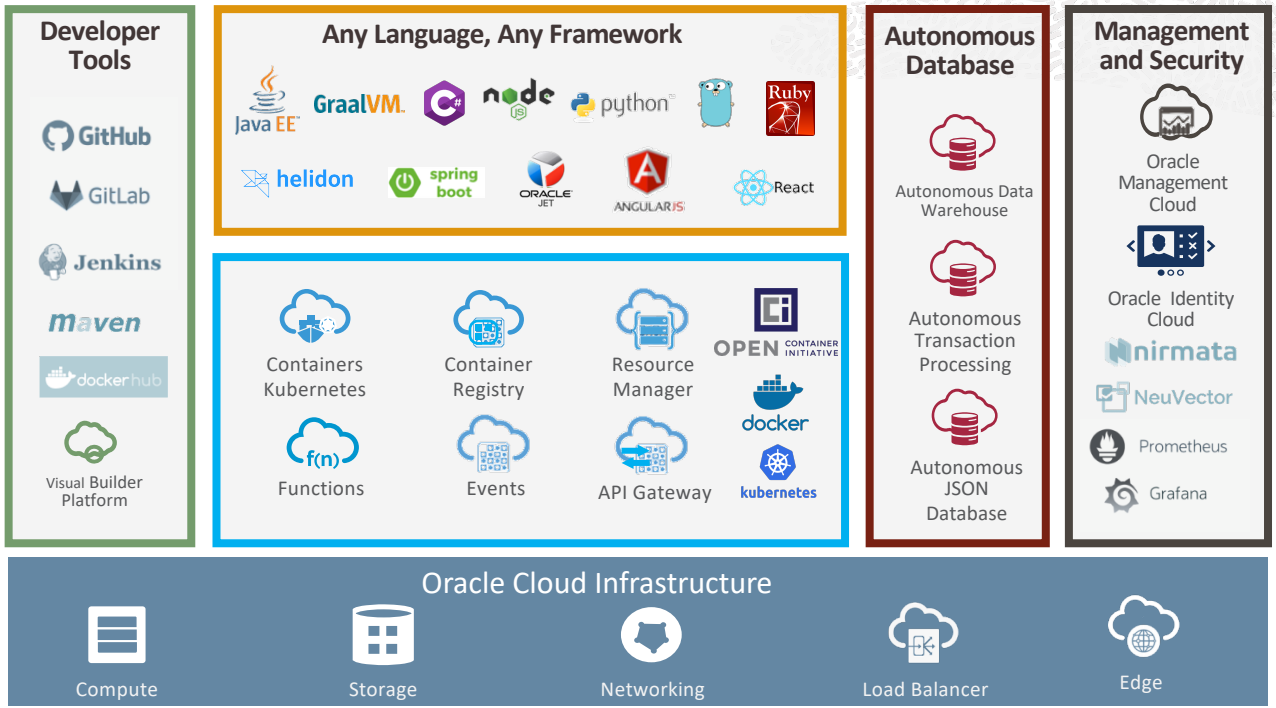
Database
Bare metal, VMs, Exadata

Millions of TPS; Full RAC and Active Data Guard support

Networking
VCN, LBaaS, FastConnect, VPN

Isolated networks with reserved IPs, security lists, firewalls, lowest cost private connectivity

Public regions **Government regions**


Developer Tools
GitHub
GitLab
Jenkins
maven
dockerhub
Visual Builder Platform
Any Language, Any Framework
Java EE
GraalVM
node
python
Ruby
helidon
spring boot
ORACLE JET
ANGULARJS
React
Containers Kubernetes
Container Registry
Resource Manager
OPEN CONTAINER INITIATIVE
docker
kubernetes
Functions
Events
API Gateway
Autonomous Database
Autonomous Data Warehouse
Autonomous Transaction Processing
Autonomous JSON Database
Management and Security
Oracle Management Cloud
Oracle Identity Cloud
nirmata
NeuVector
Prometheus
Grafana
Oracle Cloud Infrastructure
Compute
Storage
Networking
Load Balancer
Edge

Labs

https://junior.github.io/rmoug2021

Thank you

“Why do we never have time to do it right, but always have time to do it over?”

Anonymous