

Intelligent Applications on OpenShift from Prototype to Production

Dr Rebecca Simmonds Senior Software Developer Red Hat

By 2020 Al analytics is estimated to be worth a market size of 70 billion dollars

... that's A LOT of money

What is an Intelligent Application?

Intelligent applications collect and learn from data in order to provide improved functionality.







Design an Application

- Interesting topic
- Problem?
- Data?



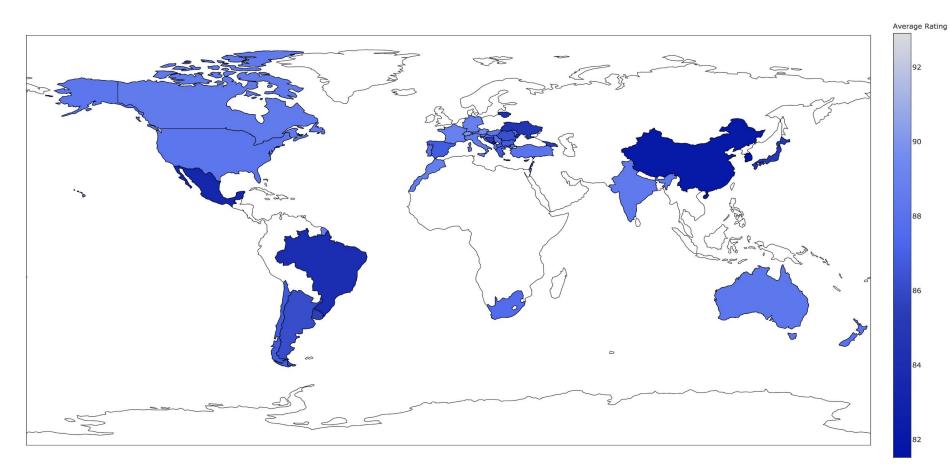




Problem

How can I plan my travel based on good wine?

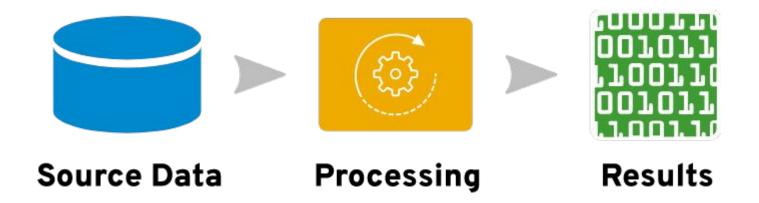






Variety	Country	Points	Region
Tinta de Toro	Spain	98	Toro
Cabernet Sauvignon	US	70	Napa Valley
Macauley	US	50	Knights Valley

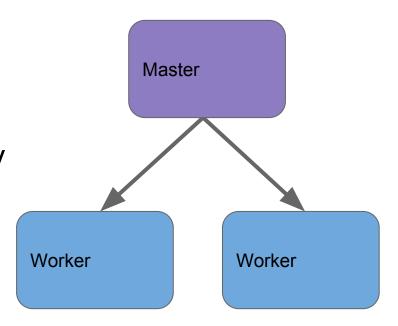
Data Analysis using Apache Spark





What is Apache Spark?

- Data analytics engine
- Processing data in parallel
- Quickly and easily
- Replicas for easy redundancy





Architecture: What are Containers?

- Allow you to package and isolate a runtime environment
- Easily portable to different environments
- Scalable
- Quick and easy to deploy



Monolithic Architecture

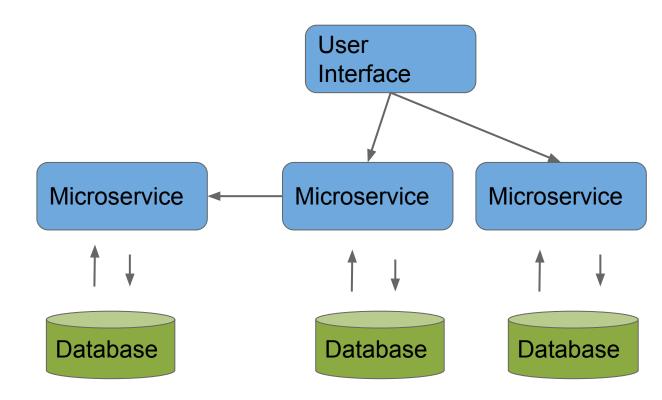
User Interface

Business Logic

Data Access
Layer

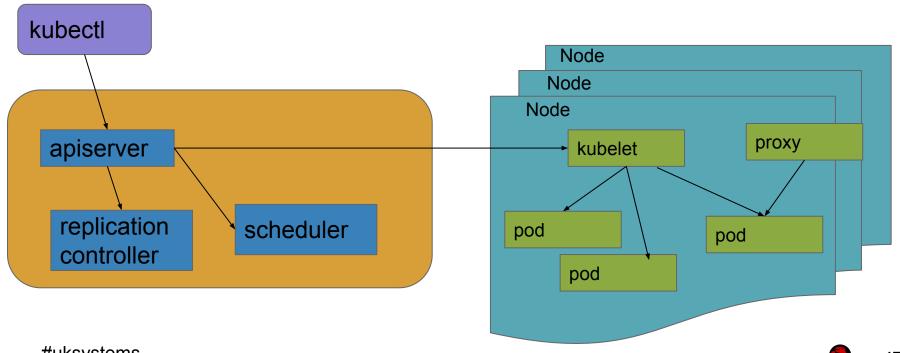
Database

Microservices Architecture





Kubernetes: Open source platform for managing containerised workloads

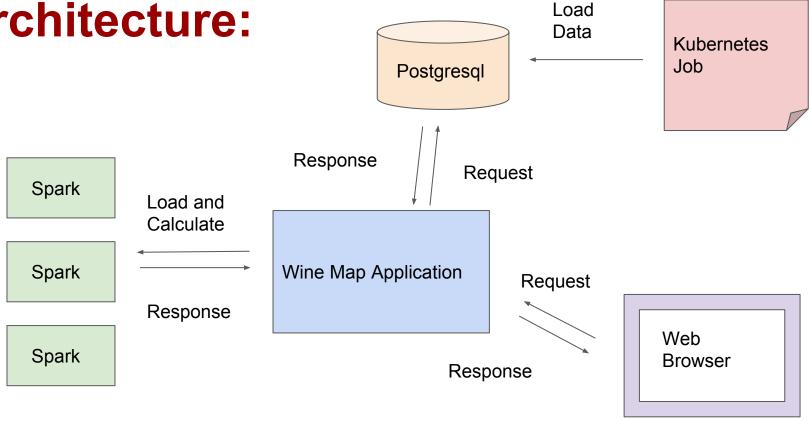


Openshift

- A container application that brings kubernetes to the enterprise
- Orchestration
- Deployments and application builds
- Scaling
- Multi-tenancy
- S2I



Architecture:



Demo



Summary

- Intelligent Applications help to give users more informed information by using data analysis
- Tooling such as Apache Spark can help you process this data: https://spark.apache.org/
- Making use of microservice architectures and containers can help to give you valuable advantages such as: scalability, replication and reusable code



Summary

- Kubernetes: https://kubernetes.io/
- + OpenShift: https://www.openshift.com/

Can help you to orchestrate container applications

- OpenShift gives you multitenancy and s2i to help you develop and deploy containers
- Containers help to package and deploy runtime environments quickly and easily



Thank you!

https://radanalytics.io/

rsimmond@redhat.com

@becky_simmonds

