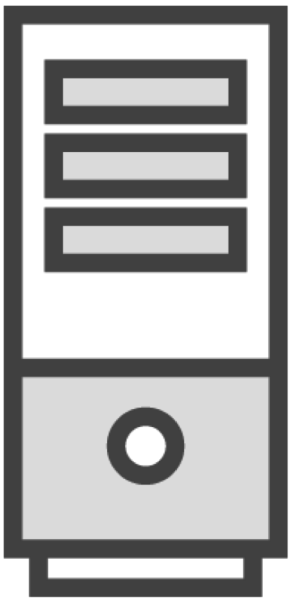# Considering Compute Performance Options

Kien Bui

DevOps & Platform Engineer

Processing

Capacity

Scaling

Responsive

Economical

Understand your workload

Understand AWS compute
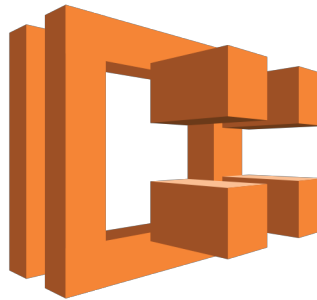
Gather/analyze data

Test, test, test

AWS Compute Options

EC2
Elastic Cloud Compute

ECS
Elastic Container
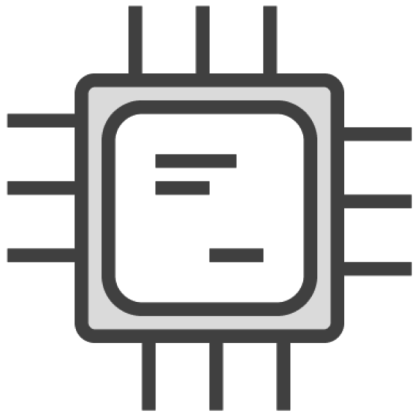Service

AWS Lambda

EC2

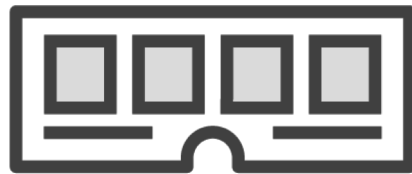Original/default option

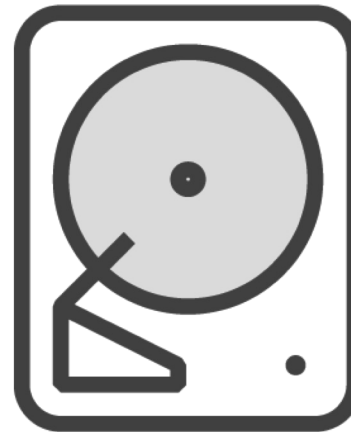Virtualized servers

Choose resources

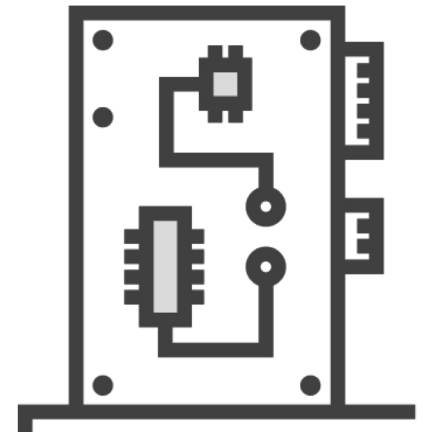You own the OS

EC2 General Resources
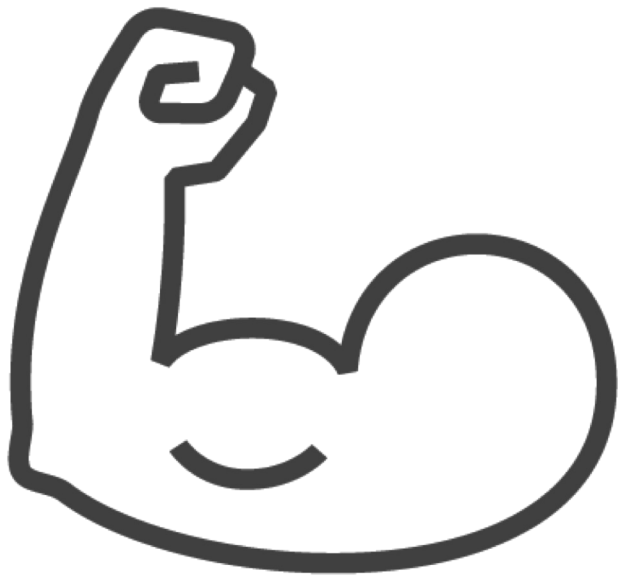
vCPUs　　　Memory　　　Storage　　　Network

Burstable

GPU

FPGA

Instance Types

General purpose

Compute optimized

Memory optimized

Accelerated computing

Storage optimized

Bare metal

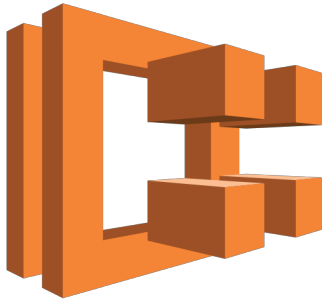# EC2 Auto Scaling

Metrics based

Schedule based

Health based

ECS

Similar workloads as EC2

Migrate apps to the cloud
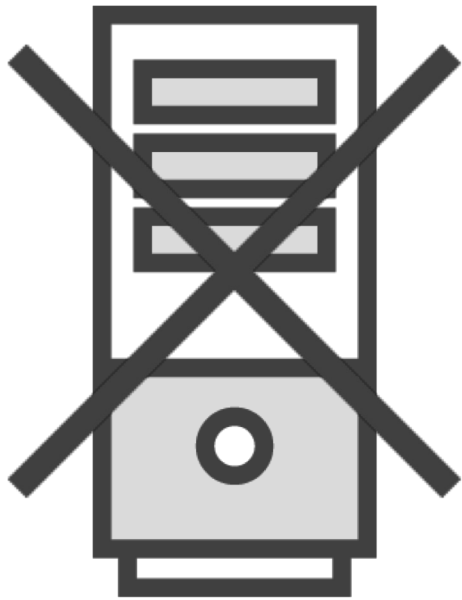
Long running apps

Batch processing

Microservices

Better utilize resources
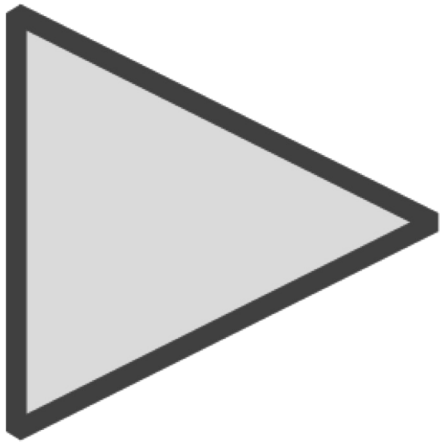
ELB

Autoscaling

AWS Fargate

Lambda

Backend processing
Event processing
Stream processing
Data processing

AWS resource triggers

API endpoints

Choose memory, get CPU

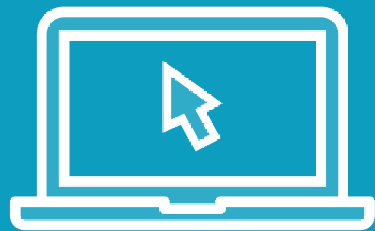Beware of limits

Simply execute code

Automatic scaling

Fault tolerant

Pay for usage -really

Demo

Researching AWS compute options

Applying Our Knowledge

Migrating to AWS Compute

GLOBOMANTICS

Portfolio of web applications

Global presence

Data collection from clinical trials

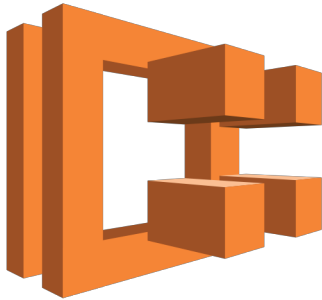# Considerations for Choice

First of many

Time to migrate

Predictable usage

ECS

Lift and shift
- Easy to containerize
- Able to scale

Size instances

Leverage for future applications

Built for the Cloud

GLOBOMANTICS

New web application

Match medical devices to needs

Global user base

Considerations for Choice

Manage costs

Global reach

Minimal maintenance

Lambda

Services behind static site

Pay for runtime

Scales based on demand

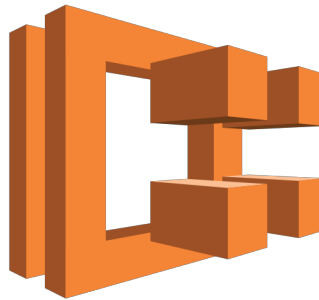Multiple regions

No servers to maintain

AWS Compute Options

EC2
Elastic Cloud Compute

ECS
Elastic Container Service

AWS Lambda

Storage performance