Xerris Bootcamp Series

Welcome to AWS

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Bootcamp Agenda

- 01 – Welcome to the Cloud
- 02 – Introduction to Microservices
- 03 – Infrastructure As Code and Build Pipelines
- 04 – AWS DynamoDB
- 05 – AWS SQS and SNS
- 06 – Introduction to Test Automation
- 07 – Test Automation with Mocks
  - .1 – Test-Driven Development
- 08 – Student Project

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What is The Cloud?

o The cloud or **"Cloud Computing"** is simply the delivery of computing systems including servers, storage, databases, networking, software, analytics and intelligence over the Internet.

o **Cloud Providers** provide the physical servers where customers are able to buy on a "pay as you go" basis compute cycles to run their business.

o Cloud Providers include:
   o Amazon AWS
   o Microsoft Azure
   o Google Cloud
   o Oracle Cloud
   o ...

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What is the Cloud?
Amazon AWS

o Amazon AWS is a subsidiary of Amazon that provides on-demand cloud computing services.

    o AWS is the largest cloud provider in the world.

    o AWS grows around %17 annually

    o AWS has the most functionality of all cloud providers

    o AWS has the largest community of customers and partners

    o AWS is the most secure of all cloud providers

    o AWS has the fastest pace of new innovation

    o AWS has the most proven operational expertise
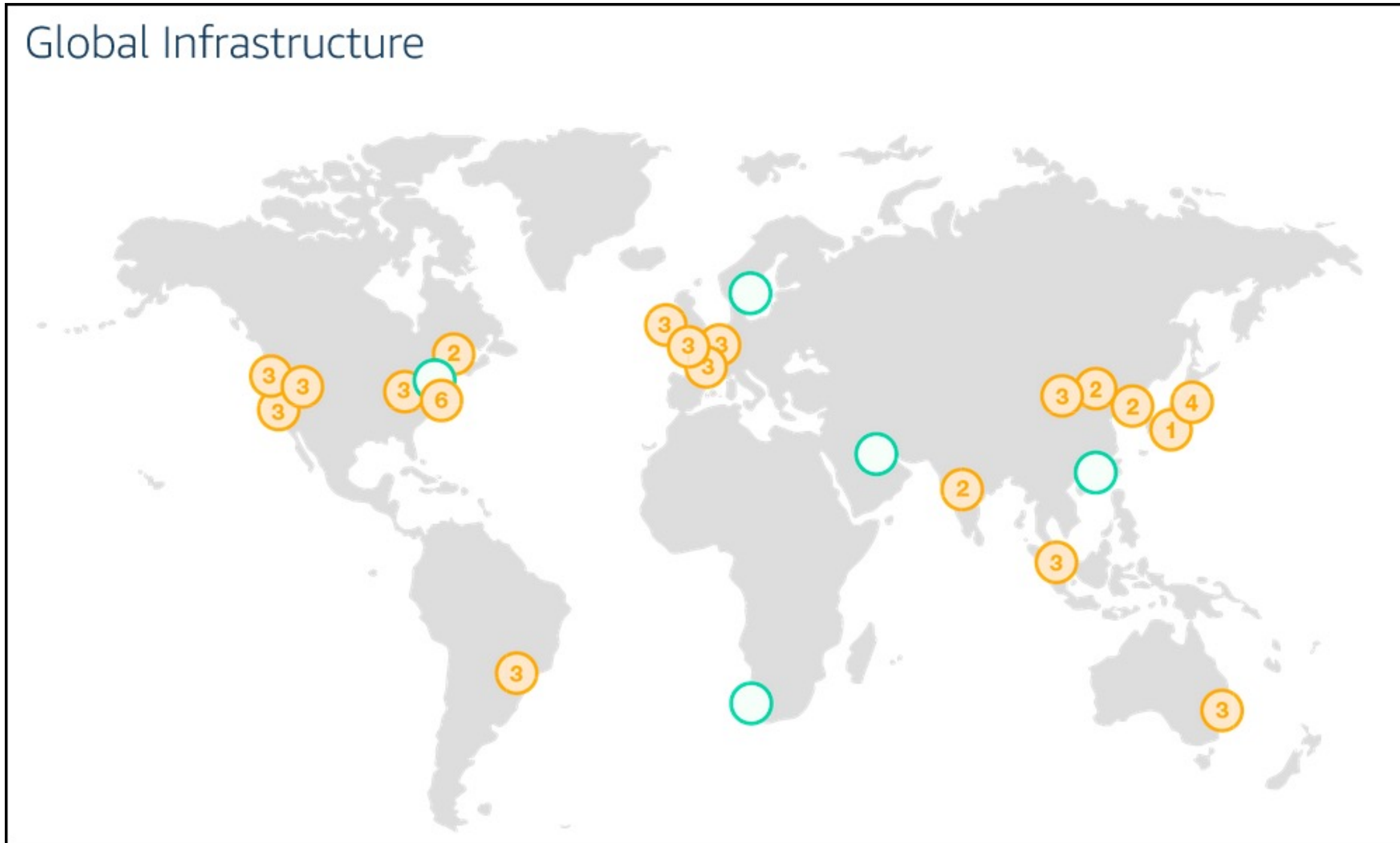
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Amazon AWS

o   AWS is global, having **regions** all over the world.

o   A **REGION** is a physical data center in a separate geographic area.

o   A Region is made up of 2 or more **AVAILABILITY ZONES** (AZ).

o   An Availability zones is a physically isolated data center within a Region.
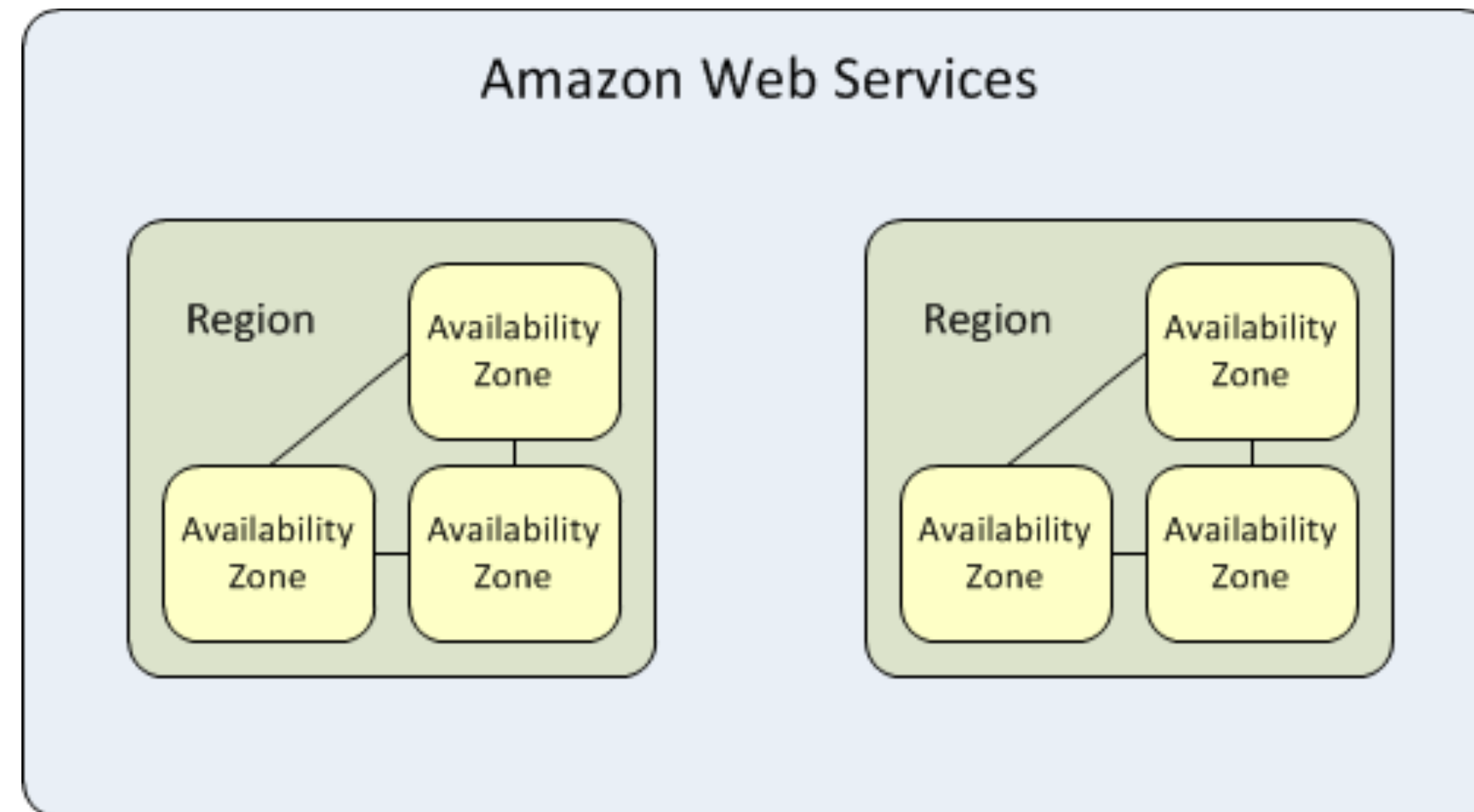
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Amazon AWS

Amazon AWS

o Availability Zones

  o A region is made up of multiple AZ to provide **high availability (HA)**.

  o High Availability aims to ensure an agreed level of operational performance, known as **uptime** for a higher then normal period.

  o Your services can be configured to cross multiple AZs in case of failures.

Amazon AWS

- AWS has a large variety of services available and more are added every year. This program will focus on these key services.

- **IAM** (Identity Access Management) – enables you to secure your AWS environment

- **API Gateway** (A secure REST gateway to other AWS services)

- **S3** (Simple Storage Service) – provides secure cloud storage.

- **Lambda** (An event-driven serverless platform)

- **DynamoDB** - (NO-SQL database)

- **SQS** (Simple Queue Services) - Used to decouple and scale micro services by providing a pub/sub subscription mechanism to pass messages between micro services.

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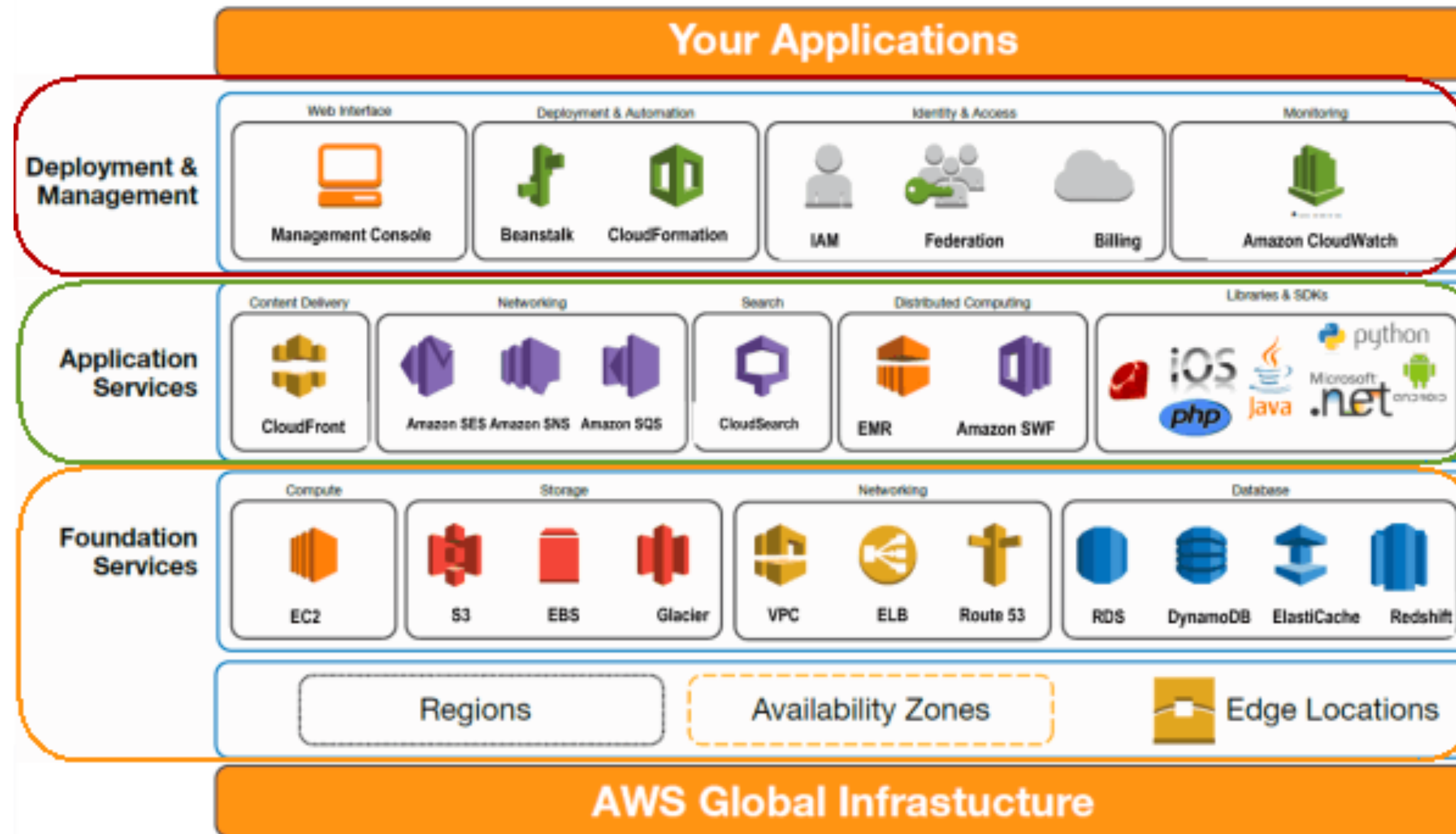
Amazon AWS

Amazon AWS

- AWS provides certifications for individuals who want to work on this field.
- **Certifications Include**
  - AWS Certified Solutions Architect (associate, professional).
  - AWS Certified Developer Associate
  - AWS Certified SysOps Administrator (associate, professional).
- **Xerris is an Advanced AWS Partner**
  - Xerris staff are encouraged to pursue one of the AWS certification paths.
  - Xerris has over 50 certified AWS practitioners.

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Demo 1 – AWS Free Tier

Demo 2 – VS Code & HTML

Demo 3 – S3 Buckets