DATE : 07.02.2025

DT/NT : DT

LESSON : AWS

SUBJECT: ELASTIC BEANSTALK

BATCH : B 303

AWS-DEVOPS

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Introduction to Elastic Beanstalk

Introduction to Elastic Beanstalk

What is Elastic Beanstalk ?

AWS Elastic Beanstalk, is a service for deploying and scaling web applications and services. Install your code and Elastic Beanstalk automatically manages the deployment, from capacity provisioning, load balancing and auto-scaling to application health monitoring.

Introduction to Elastic Beanstalk

What is Elastic Beanstalk ?

Upload and deploy
Upload and deploy web applications in a simplified, fast way.

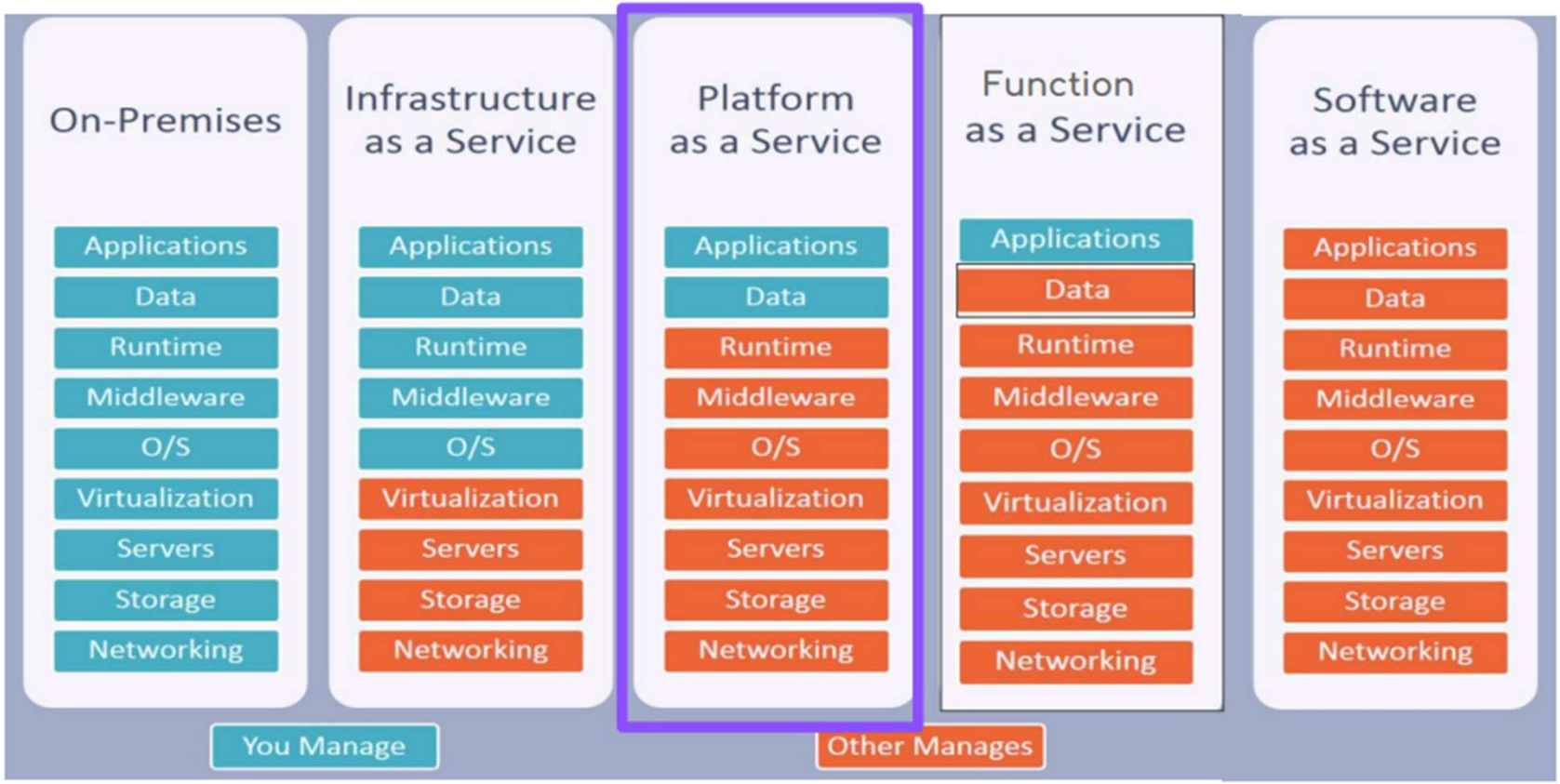
Focus on writing code
Focus on writing code instead of provisioning and managing infrastructure.

Power your applications
Select and retain full control of the optimal AWS resources for powering your applications.

Scale your applications
Use adjustable settings to scale your application for handling peaks in traffic, while minimizing costs.

Introduction to Elastic Beanstalk

What is Elastic Beanstalk ?



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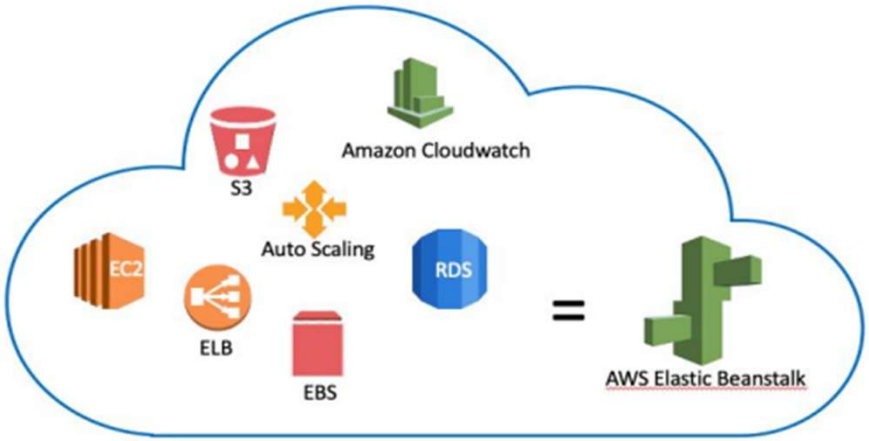
Why AWS Elastic Beanstalk?

•Automates the details of capacity provisioning,
• Load balancing,
• Auto scaling,
• Application deployment,



Introduction to Elastic Beanstalk

Why AWS Elastic Beanstalk?

- Automates management tasks:

- Monitoring,
- Version deployment,
- Health check
- Log

Monitoring

Health Check

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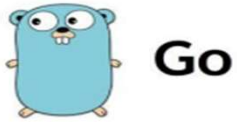
Introduction to Elastic Beanstalk

Features

Wide choice of application platform

AWS Elastic Beanstalk supports web applications written in many popular languages and frameworks. Development options for deploying your web applications include Java, .NET, Node.js, PHP, Ruby, Python, Go, and Docker.



Introduction to Elastic Beanstalk

Features

Various application deployment options

With AWS Elastic Beanstalk, you can deploy your code through the AWS Management Console, Elastic Beanstalk Command Line Interface, Visual Studio and Eclipse.

Introduction to Elastic Beanstalk

Features

Monitoring

Elastic Beanstalk provides a unified user interface (UI) for monitoring and managing the state of your applications.

Introduction to Elastic Beanstalk

Features

Application Health

Elastic Beanstalk collects more than 40 key metrics and attributes to determine the health of your applications. With Elastic Beanstalk Health Dashboard, you can visualise overall application health and customise application health controls, health permissions, and health reporting in a single user interface.

Introduction to Elastic Beanstalk

Features

Monitoring, Logging, and Tracing

Elastic Beanstalk integration with Amazon CloudWatch and AWS X-Ray means you can use monitoring dashboards to view key performance metrics such as latency, CPU utilisation and response codes. You can also set up CloudWatch alarms to be notified when metrics exceed thresholds you select.

Introduction to Elastic Beanstalk

Features

Updates and management

You can choose to automatically get the latest platform versions of your Elastic Beanstalk environment and new patches using managed platform updates. An immutable deployment mechanism ensures these updates are implemented safely. For ongoing management, you can also customize application properties, create alarms, and enable e-mail notifications via Amazon Simple Notification Service (Amazon SNS).

Introduction to Elastic Beanstalk

Features

Scaling

Elastic Beanstalk uses Elastic Load Balancing and Auto Scaling to automatically scale your application according to its specific needs. Multiple availability zones give you the option to increase application reliability and availability.

Introduction to Elastic Beanstalk

Features

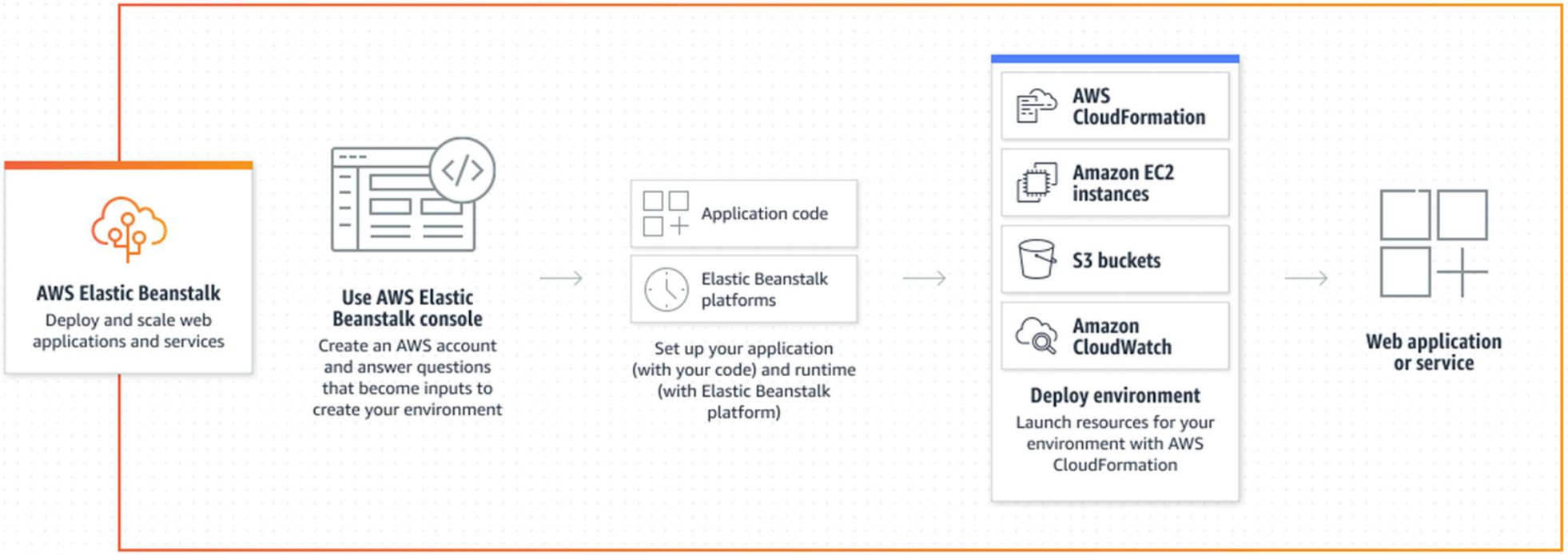
Customization

With Elastic Beanstalk, you have the freedom to select the AWS resources, such as Amazon EC2 instance type including Spot instances, that are optimal for your application. You also retain full control over the AWS resources powering your application. If you decide you want to take over some (or all) of the elements of your infrastructure, you can do so seamlessly by using Elastic Beanstalk's management capabilities.

Basic Concepts of Elastic Beanstalk

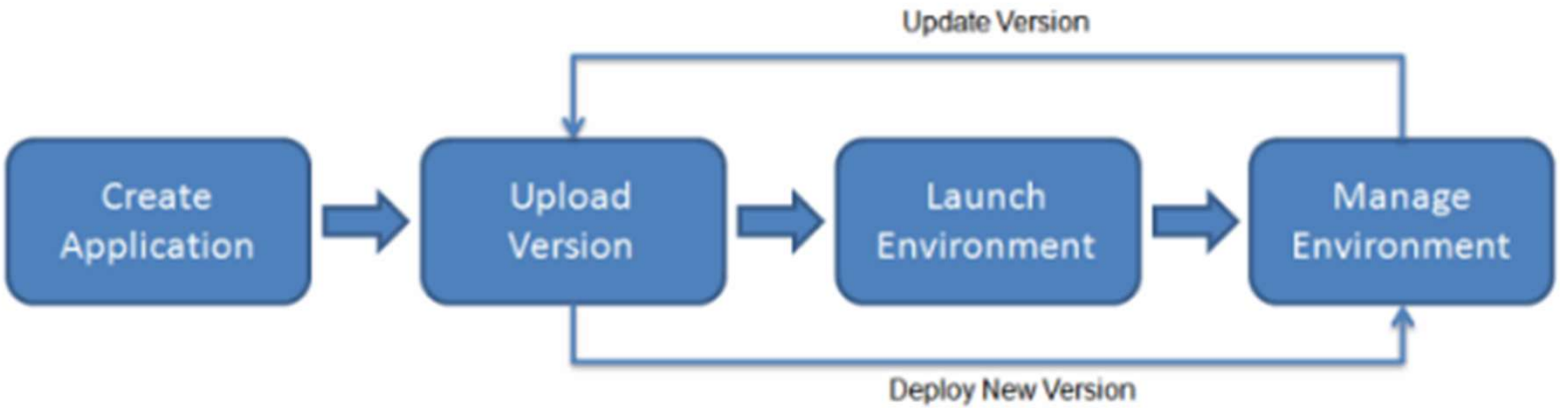
Basic Concepts of Elastic Beanstalk

How Elastic Beanstalk Works



Basic Concepts of Elastic Beanstalk

How Elastic Beanstalk Works



Basic Concepts of Elastic Beanstalk

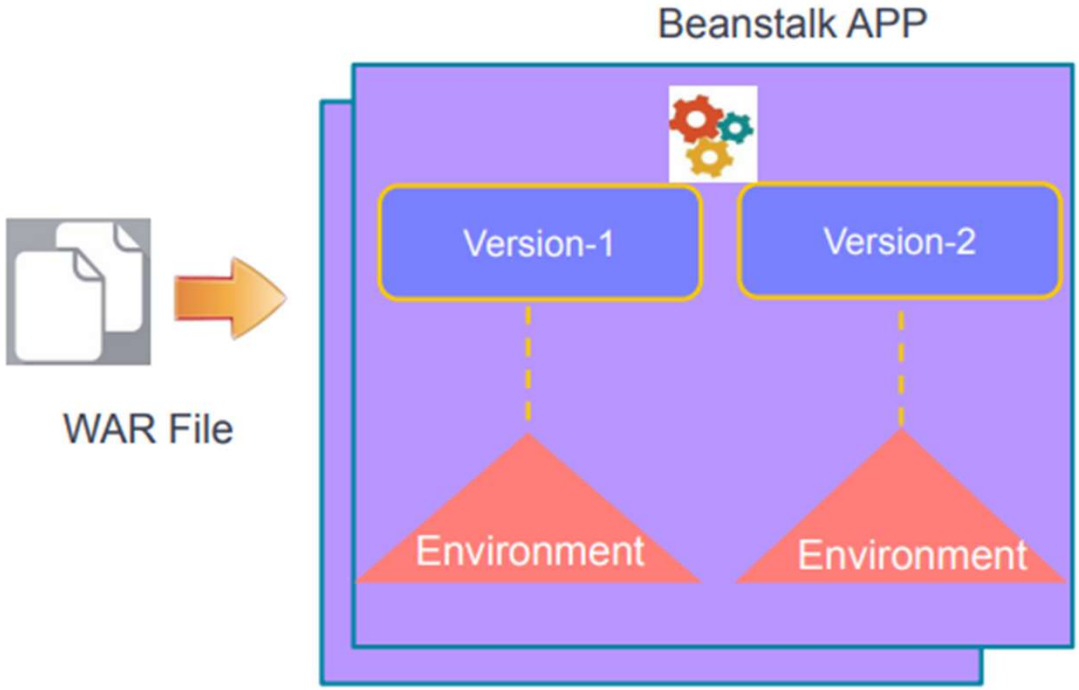
How Elastic Beanstalk Works

Application

Application is a logical collection of Elastic Beanstalk components. It covers all components.

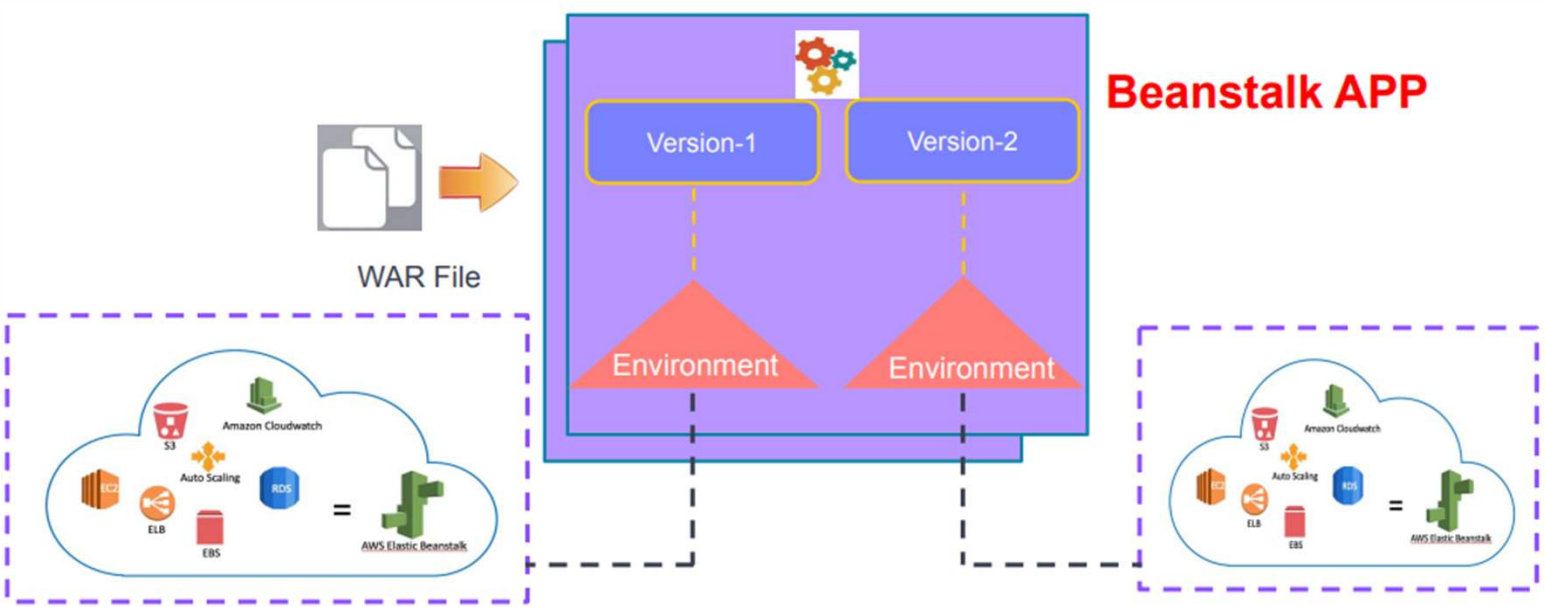
Application version

Specific, labeled iteration of deployable code for a web application.



Basic Concepts of Elastic Beanstalk

How Elastic Beanstalk Works

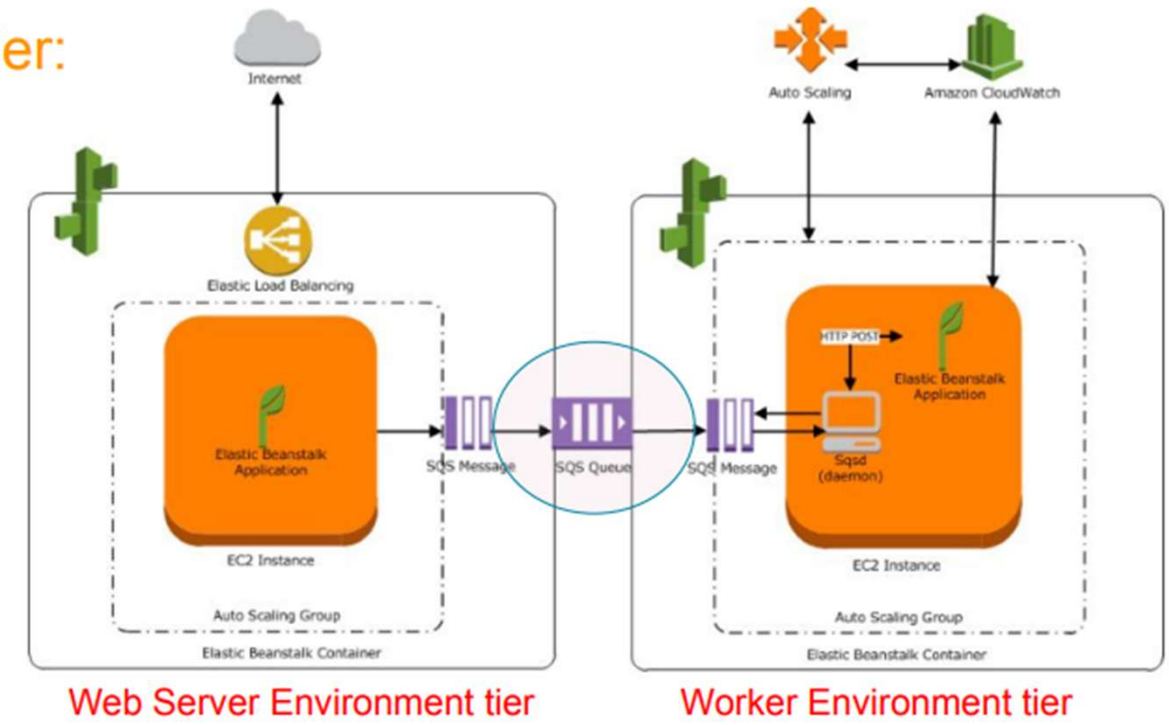


Environment

An environment is a collection of AWS resources running an application version. Each environment runs only one application version at a time.

Basic Concepts of Elastic Beanstalk

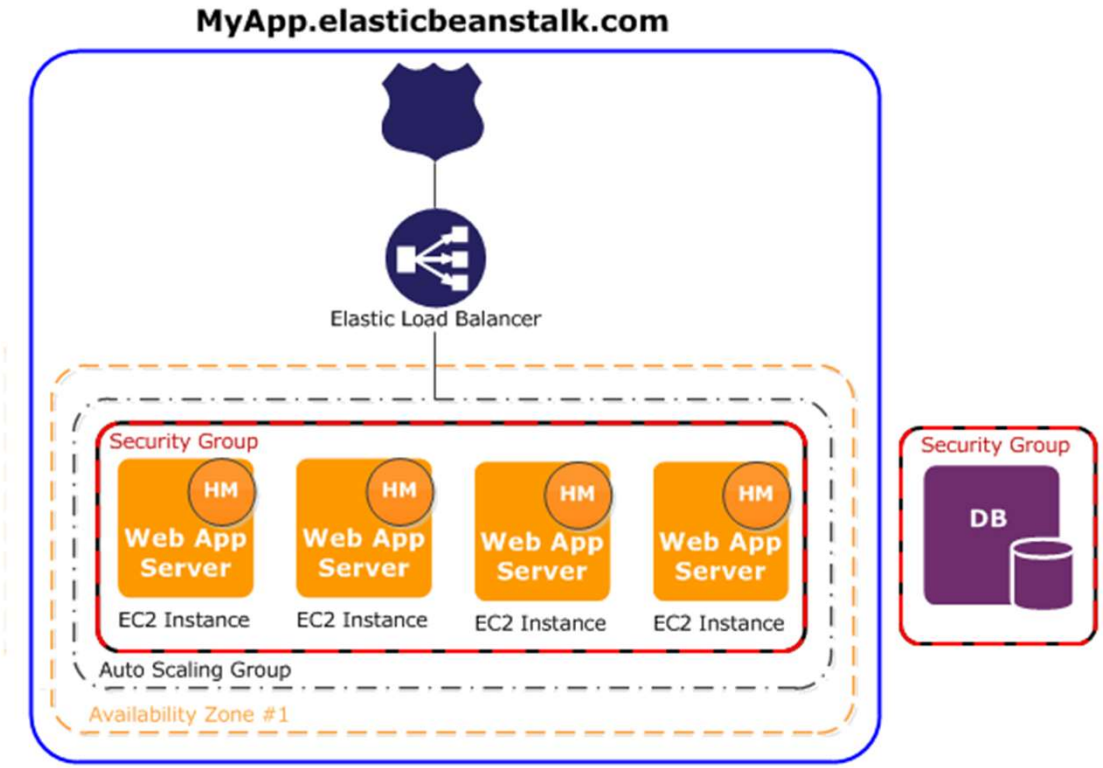
Environment Tier:



The environment tier designates the type of application that the environment runs, and determines what resources Elastic Beanstalk provisions to support it.

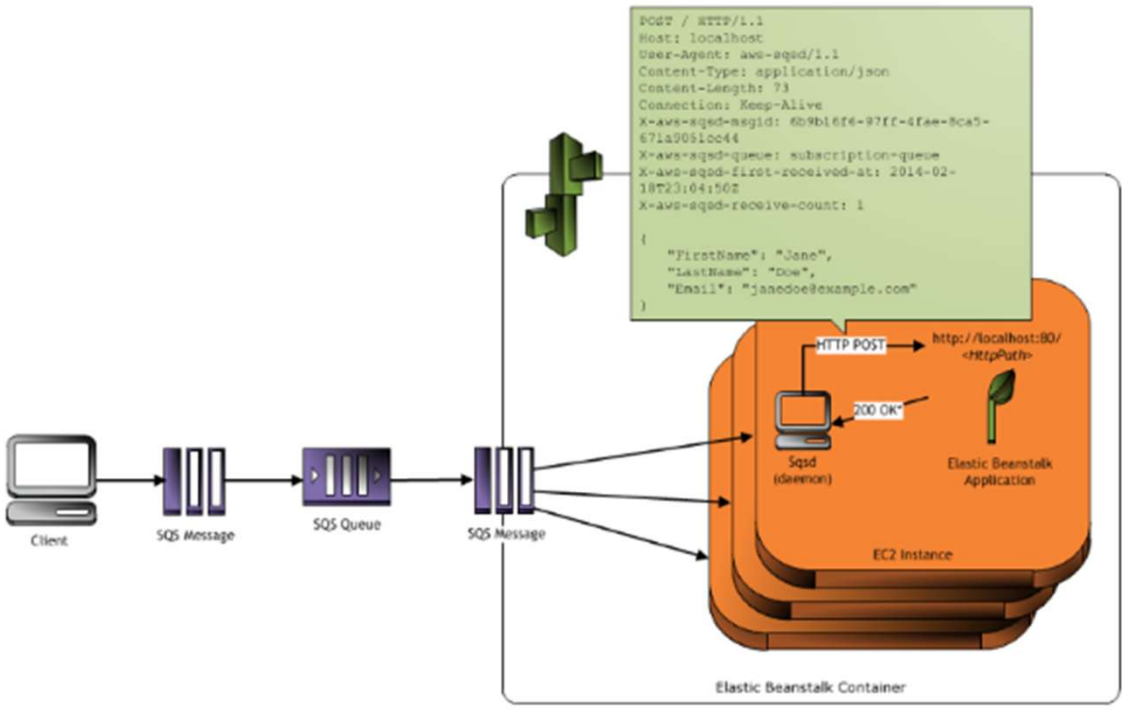
Basic Concepts of Elastic Beanstalk

Web Server Environment Tier



Basic Concepts of Elastic Beanstalk

Worker Environment Tier



* HTTP Response of 200 OK = delete the message
Any other HTTP Response = retry the message after the VisibilityTimeout period
No response = retry the message after the InactivityTimeout period

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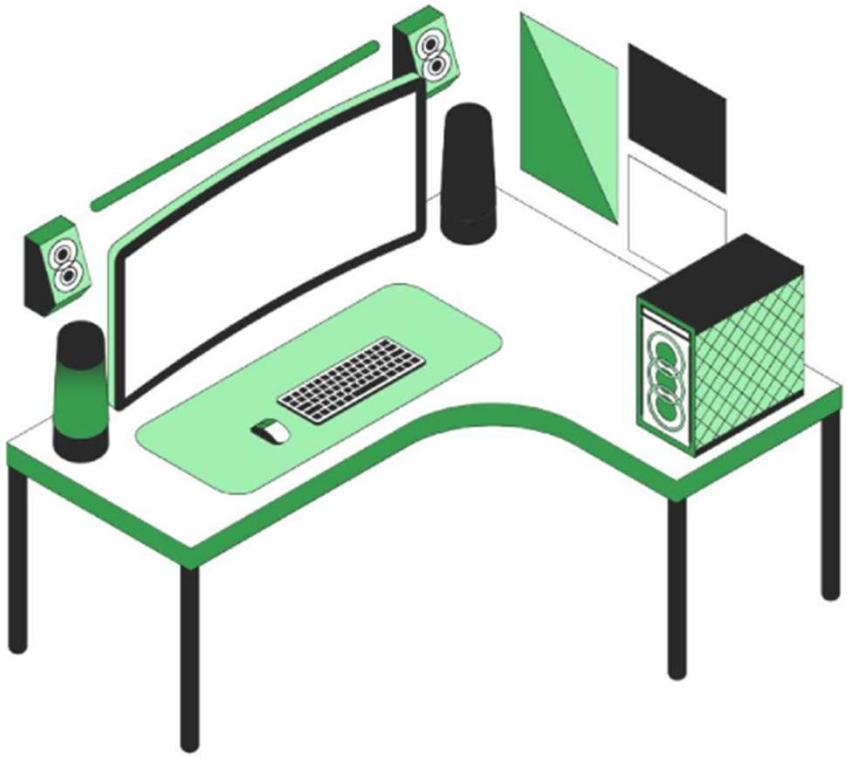

Do you have any questions?

Send it to us! We hope you learned something new.