

Preparing to Improve Your Architecture

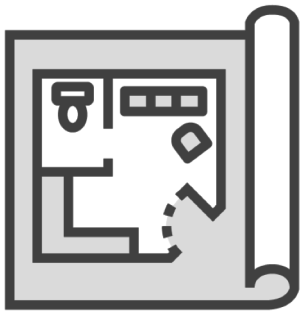


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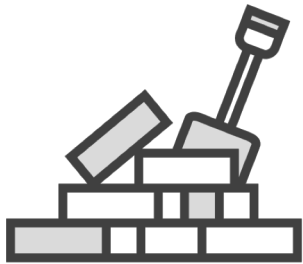


You're done!

But...

- Unexpected usage patterns
- Poor performance
- New services
- New requests





Repeatable builds

Rebuildable infrastructure

Controlled tests

CI/CD





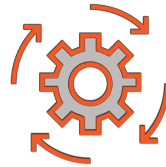
Team

Architect
Code
Test



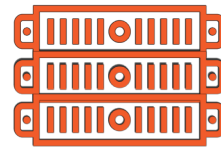
Artifacts

Source Code
Infrastructure



Build

Compile
Validate



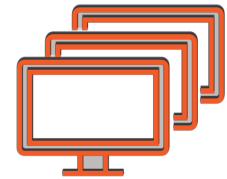
Deploy

Infrastructure
Application



Test

Automation
Integration
Performance



Release

Real users





CloudFormation

Infrastructure template

Automate creation

Ensure consistency





Create or update

Manages dependencies

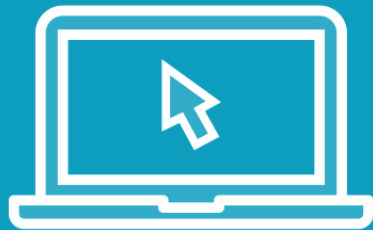
Preview changes

Extensible

Source control



Demo



AWS architecture resources



Introducing CloudFormation Templates



Common Template Sections

Format Version

Description

Parameters

Resources

Output



AWSTemplateFormatVersion: 2010-09-09

Description:

Simple Example - S3 Website

Parameters:

BucketName:

Type: String

Default: simples3site

Description: Name of Bucket

◀ **Template version (optional)**

◀ **Description (optional)**

◀ **Parameters (optional)**

◀ **Defines name we will use for the S3 Bucket we create**



Resources:

WebSiteBucket:

Type: AWS::S3::Bucket

Properties:

AccessControl:
PublicRead

BucketName:

!Ref BucketName

WebsiteConfiguration:

IndexDocument:
index.html

DeletionPolicy: Retain

◀ Resources (required)

◀ Resource name

◀ Resource type

◀ Properties

◀ Reference to a parameter

◀ Keep bucket when deleting
stack



Outputs:

WebsiteURL:

Value:

```
!GetAtt [  
  "WebSiteBucket",  
  "WebsiteURL"]
```

Description:

URL of website

◀ Outputs (optional)

◀ Output name

◀ Define the value

◀ Get the WebsiteURL value from the WebSiteBucket resource

◀ Description of the output value



Learn More from Pluralsight

Automating AWS with CloudFormation

by Andreas Wittig

Managing AWS environments manually is complex and fault-prone. Describing your infrastructure in code helps you to improve quality and save costs. This course teaches you how to use AWS CloudFormation to automatically manage your infrastructure.

Overview

Automating infrastructure

- Improve quality

- Improve flexibility

Describing infrastructure in

- No scripting or program

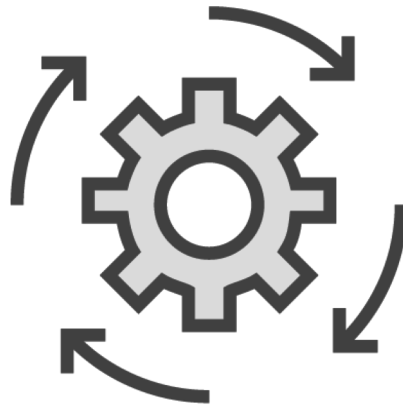
- Perfect tool for the job



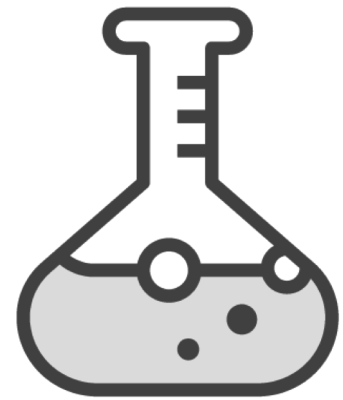
Keys to Support Improvement



CloudFormation

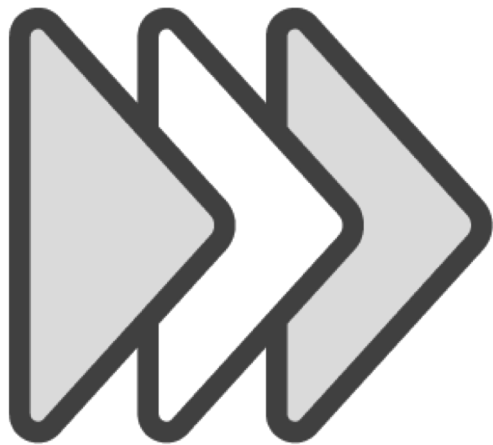


CI/CD



Test





Monitoring your architecture

