

AWS re:Invent

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D O P 3 1 0 - R

Continuous integration and delivery on AWS

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Agenda

Define the release lifecycle

Review services

Workshop scenario

Workshop details

Hands-on workshop

Release lifecycle



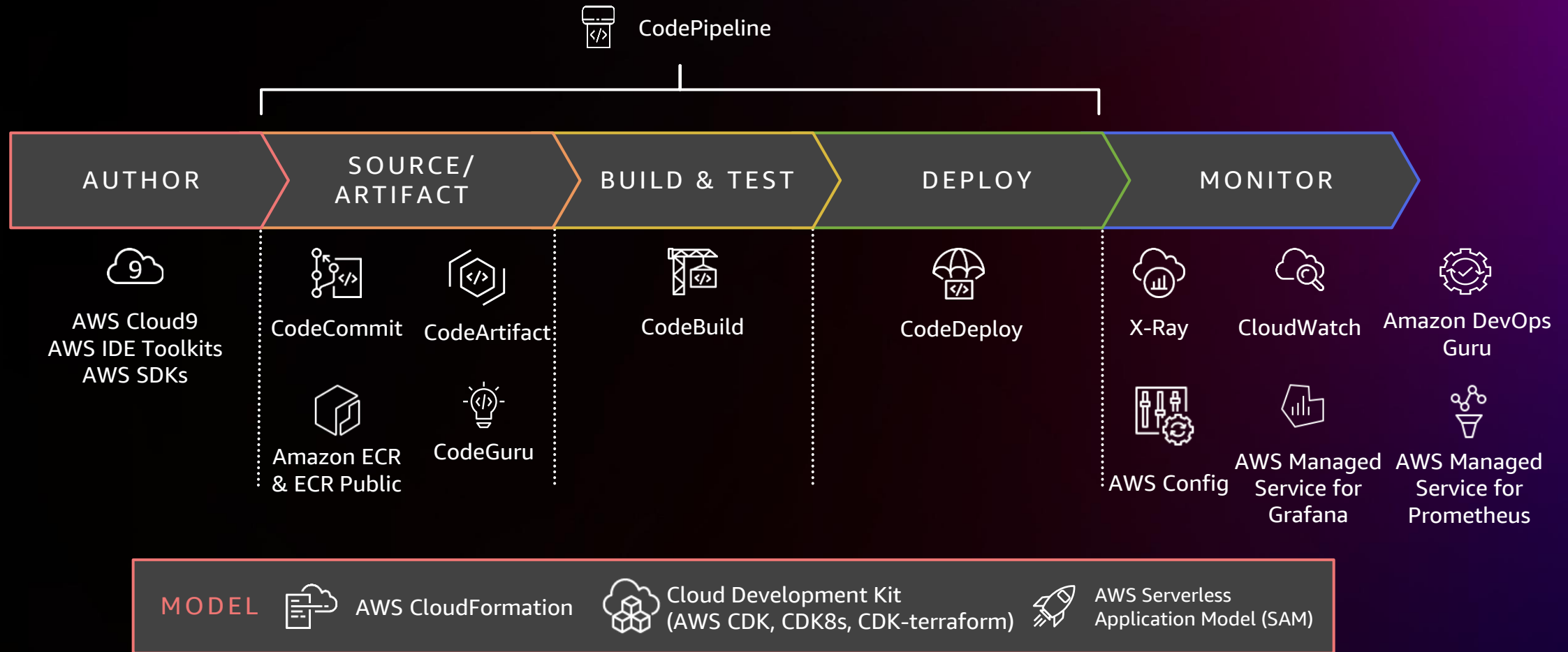
Continuous integration

Continuous delivery

Continuous deployment



End-to-end solution helps development organizations go faster



Amazon Elastic Container Service (Amazon ECS)



Amazon ECS

AWS opinionated way to
run containers at scale

Reduce decisions without
sacrificing scale or features

Reduce time to build, deploy,
and migrate applications

AWS Cloud Development Kit (AWS CDK)

A MULTI-LANGUAGE SOFTWARE DEVELOPMENT FRAMEWORK FOR MODELING CLOUD INFRASTRUCTURE AS REUSABLE COMPONENTS

```
class UrlShortener extends Stack {
  constructor(scope: App, id: string, props?: UrlShortenerProps) {
    super(scope, id, props);

    const vpc = new ec2.Vpc(this, 'vpc', { maxAzs: 2 });
    const cluster = new ecs.Cluster(this, 'cluster', { vpc: vpc });
    const service = new patterns.NetworkLoadBalancedFargateService(this, 'sample-app', {
      cluster,
      taskImageOptions: {
        image: ecs.ContainerImage.fromAsset('ping'),
      },
      domain
    });
    // Setup AutoScaling policy
    const scaling = service.service.autoScaleTask
    scaling.scaleOnCpuUtilization('CpuScaling',
      targetUtilizationPercent: 50,
      scaleInCooldown: Duration.seconds(60),
      scaleOutCooldown: Duration.seconds(60)
    );
  }
}
```

domainName

domainZone

(property) patterns.NetworkLoadBalancedServiceBaseProps.domainName?: string | undefined

The domain name for the service, e.g. "api.example.com."

@default

- No domain name.



Familiar
Your language
Just code



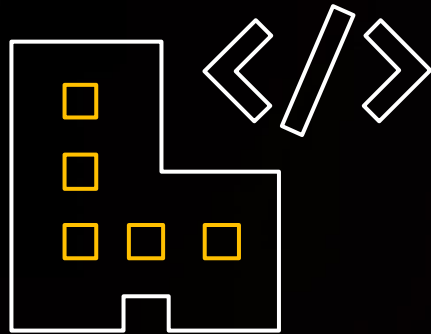
Tool support
Autocomplete
Inline documentation



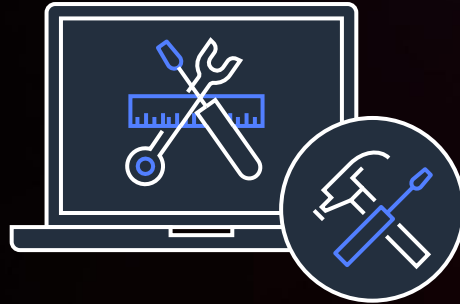
Abstraction
Sane defaults
Reusable classes



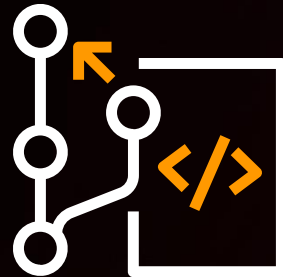
CDK philosophy – From this . . .



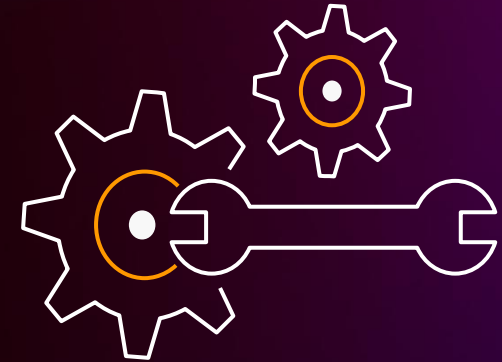
Infrastructure



Application
code

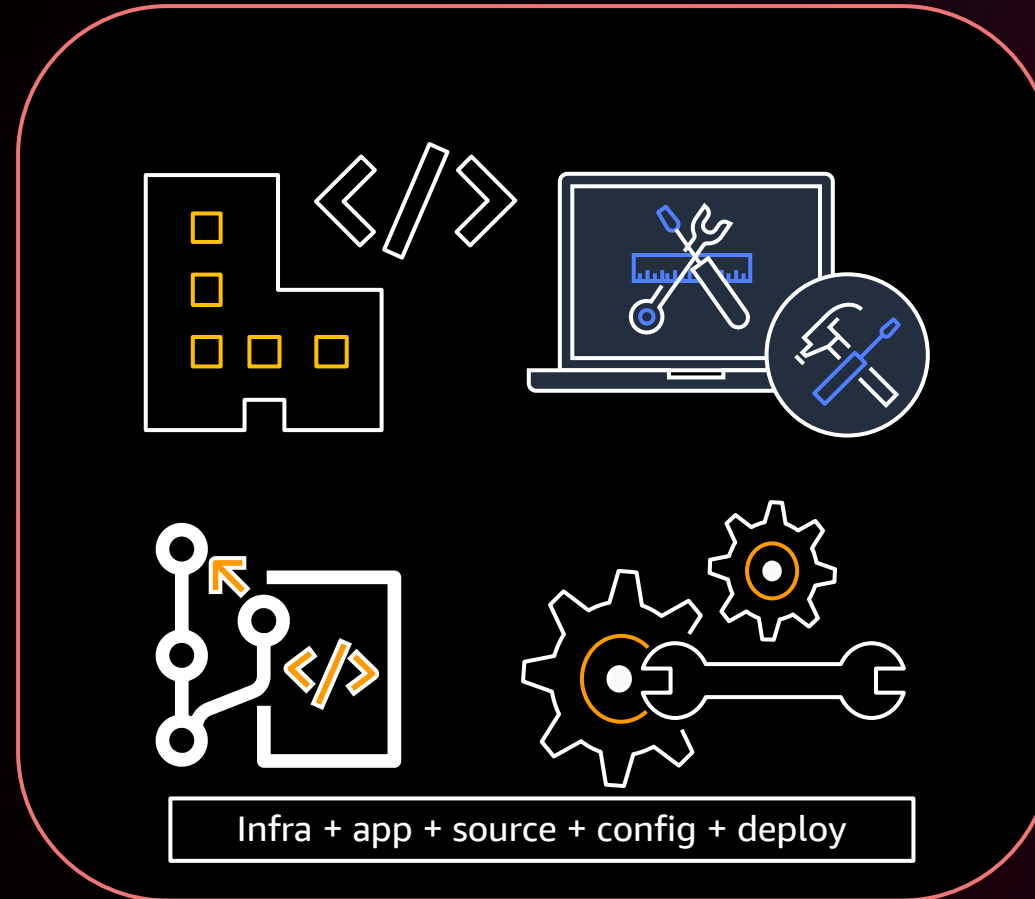


Source control



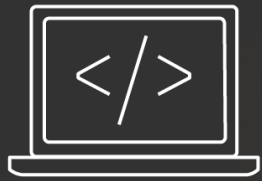
Config and deployment

CDK philosophy – To this



Workshop overview

LAB 1



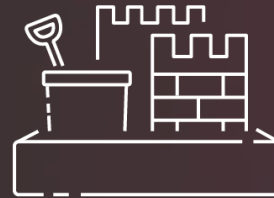
**Create and
containerize**
the application

LAB 2



Set up source
control and
AWS CDK

LAB 3



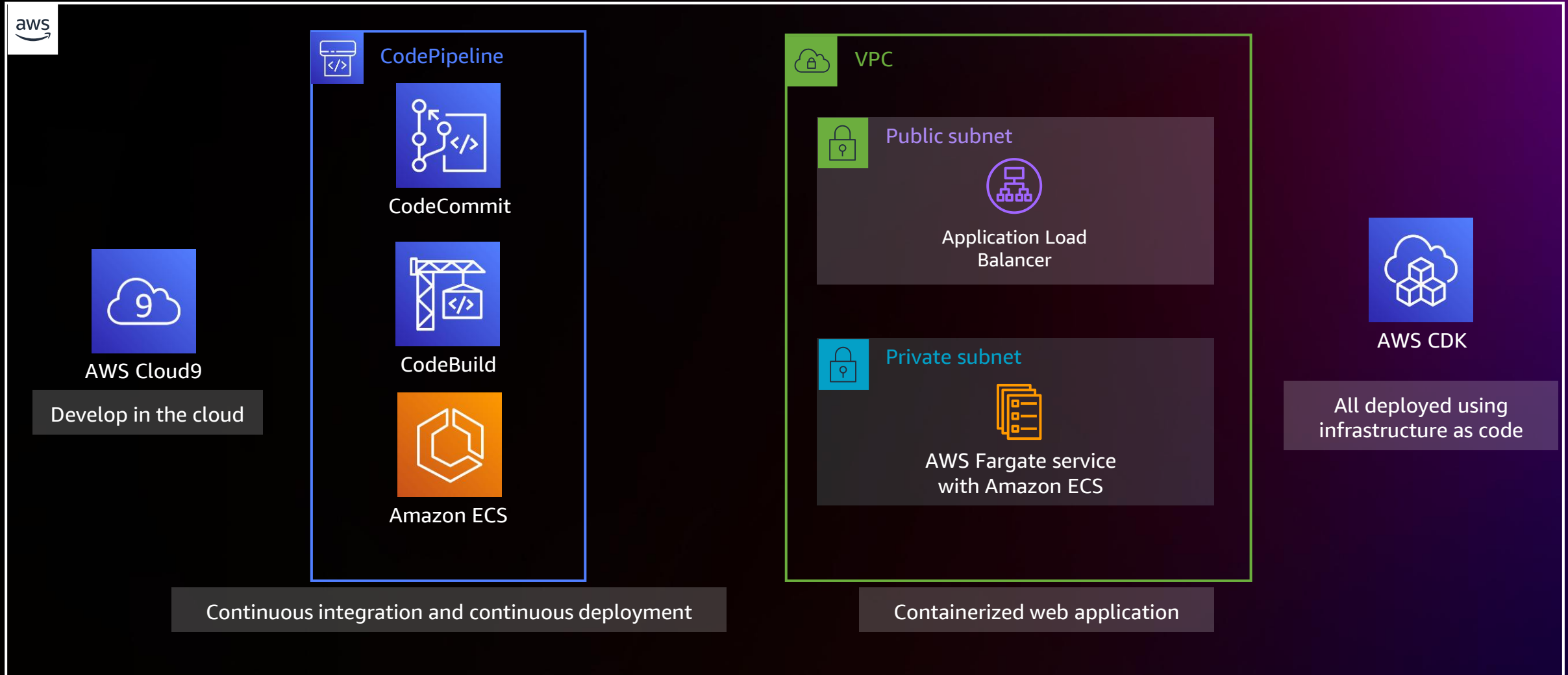
**Build and
test** your
application

LAB 4



Deploy to
serverless
containers

Workshop architecture



Workshop logistics

Workshop studio – accounts will be provisioned for you to run today's labs

Workshop moderators – workshop moderators will walk around the room to help you

Sign in via your preferred method

<https://catalog.workshops.aws/join>

Code: fb82-0e7693-f8



aws workshop studio

Workshop Studio > Sign in

Sign in

Choose a preferred sign-in method

Email one-time password (OTP)

Enter your personal or corporate email to receive a one-time password

Login with Amazon

Login with your Amazon.com retail account

Amazon employee

Login with your Amazon Corporate account. Only for Amazon Employees.

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For more information

<https://catalog.workshops.aws/cicdonaws>



Thank you!

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