
AWS
re:Invent

DOP312

Turbocharge your code builds with AWS CodeBuild

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AWS

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Turbocharge your code builds with AWS CodeBuild

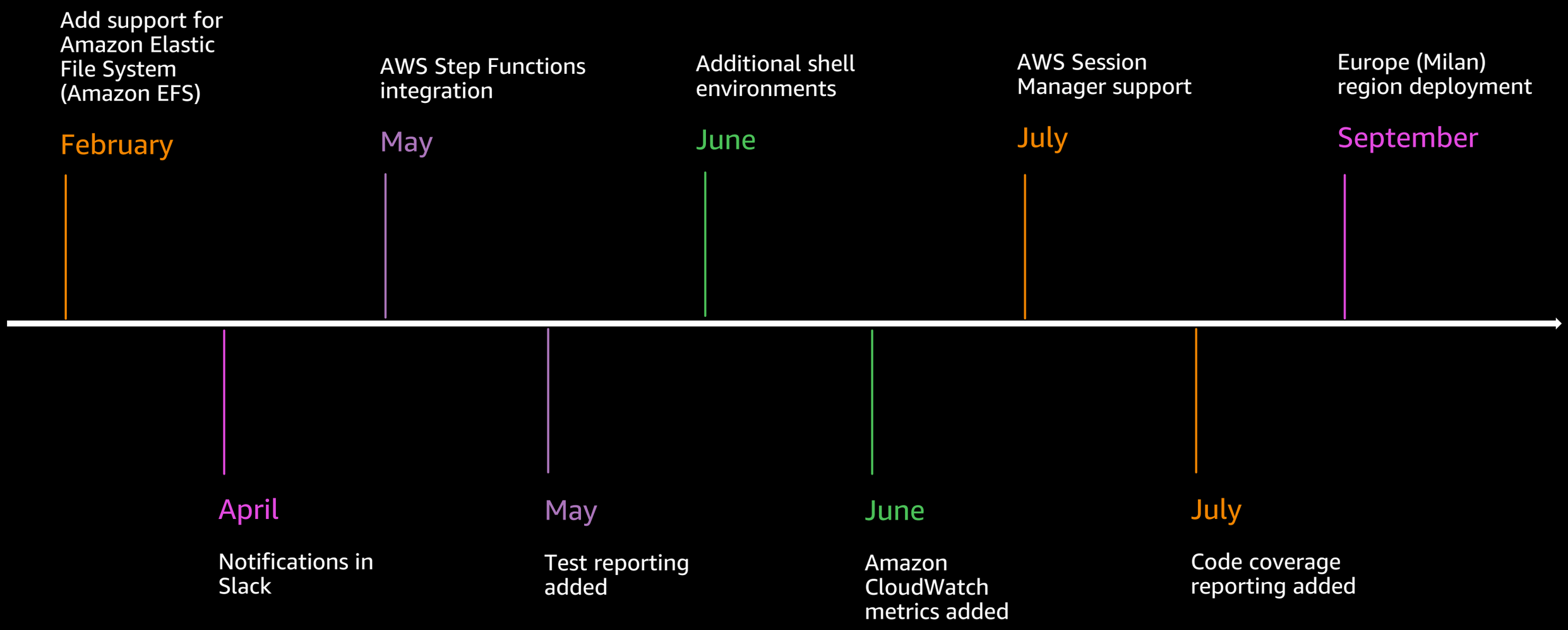
- Environment improvements
- Reporting improvements
- Integration improvements
- Demo



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2020 releases



Environment improvements

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AWS Session Manager support

Use one-click browser based shell, or AWS CLI

Be sure to pause the build with `codebuild-breakpoint`
to allow troubleshooting

Resume with `codebuild-resume`

Other environment improvements

Additional shell environments

Linux environments:

- `bash` new!
- `/bin/sh`

Windows environments:

- `PowerShell`
- `cmd` new!

Amazon EFS Support

Allows connecting Amazon EFS shares to CodeBuild environments

Amazon EFS and CodeBuild must be connected to a Amazon Virtual Private Cloud (Amazon VPC)

Use a privileged build environment to allow access to other devices

Reporting improvements

Turbocharge your code builds with AWS CodeBuild

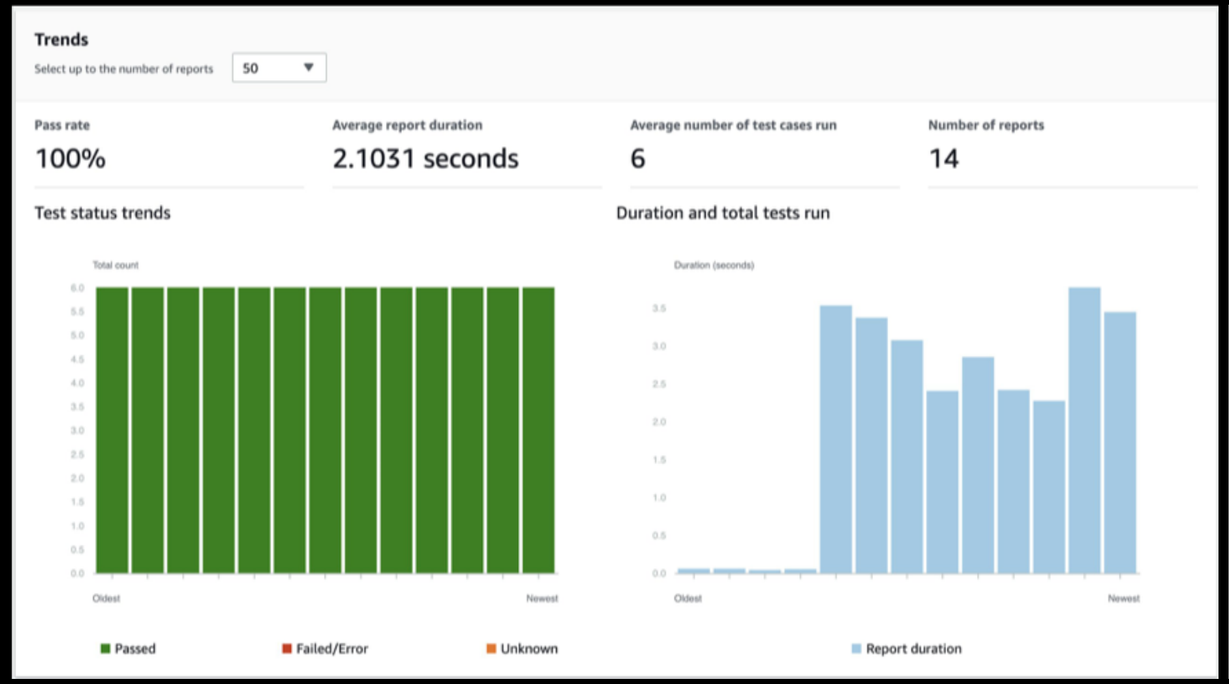


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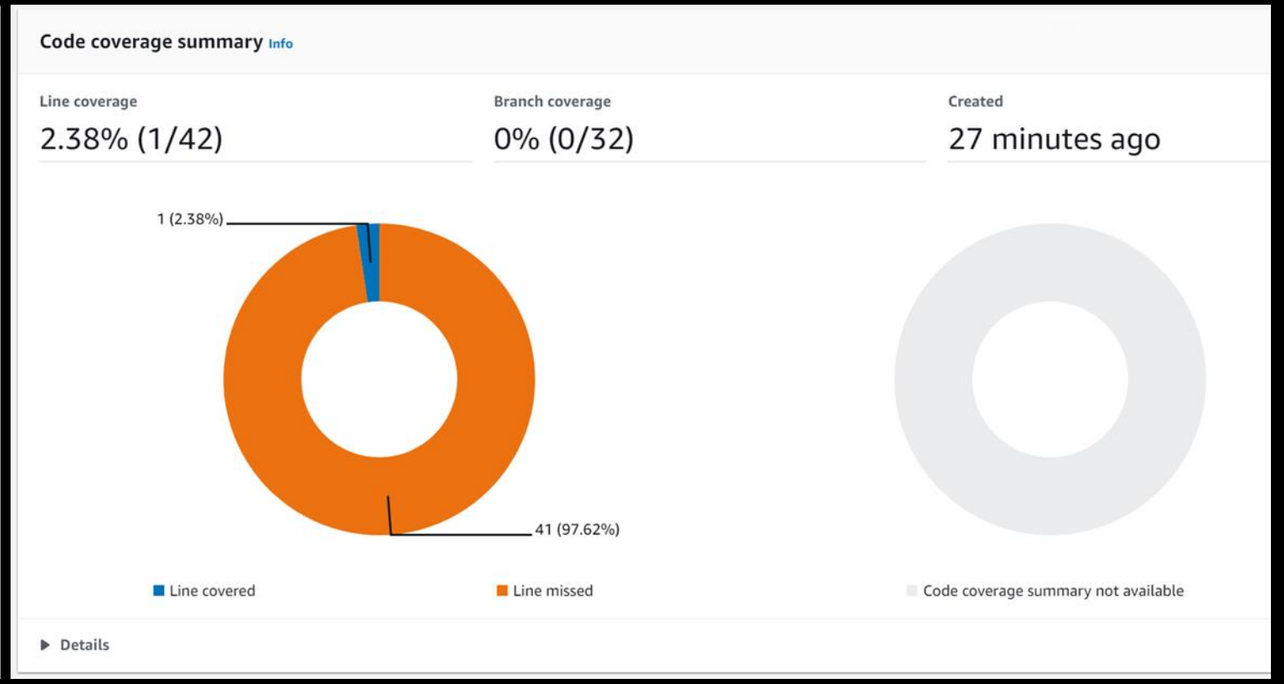
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Visual reporting of tests

Unit test reporting



Code coverage reporting



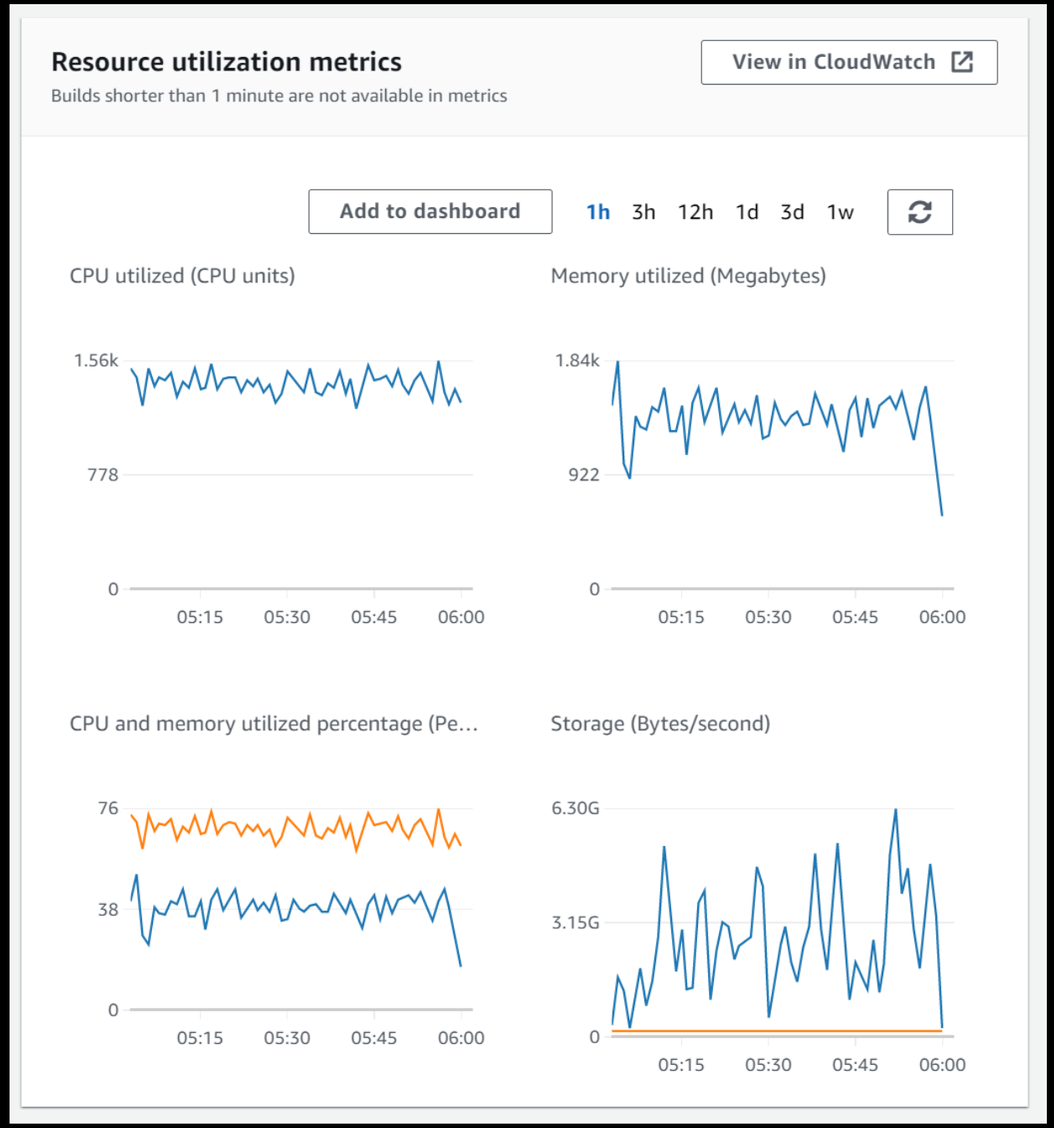
Utilization metrics in CloudWatch

Metrics captured:

- CPU
- Memory
- Disk I/O

Right size your build instances to optimize for cost/performance

View per build metrics within CodeBuild



Integration improvements

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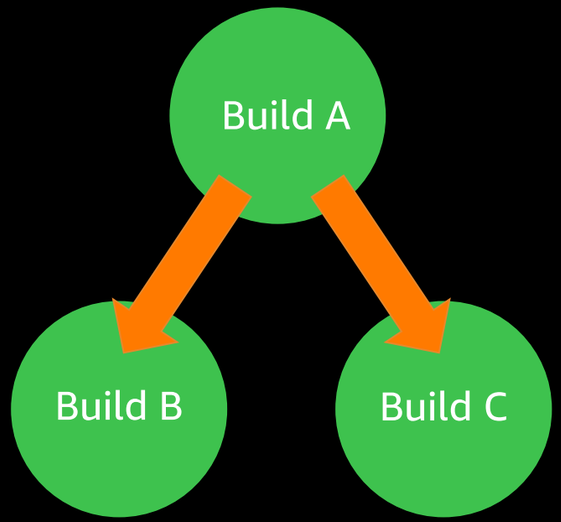
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Parallel and coordinated build execution

Build Graph

Define builds in a graph to show where builds have dependencies on each other



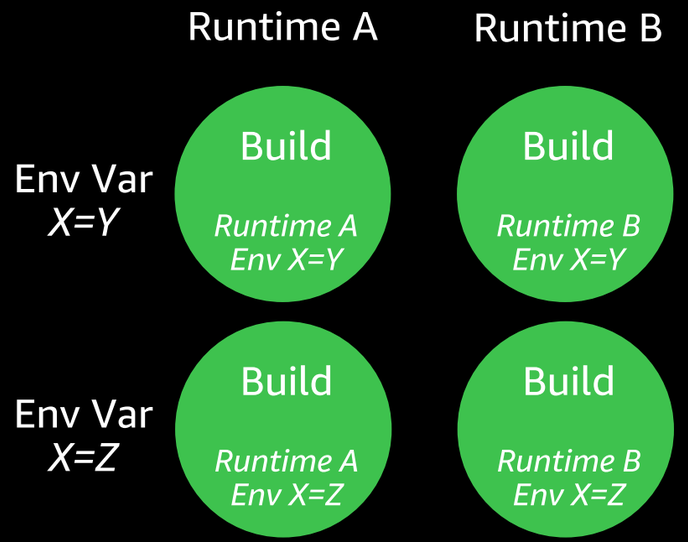
Build List

Define a list of builds that execute in parallel



Build Matrix

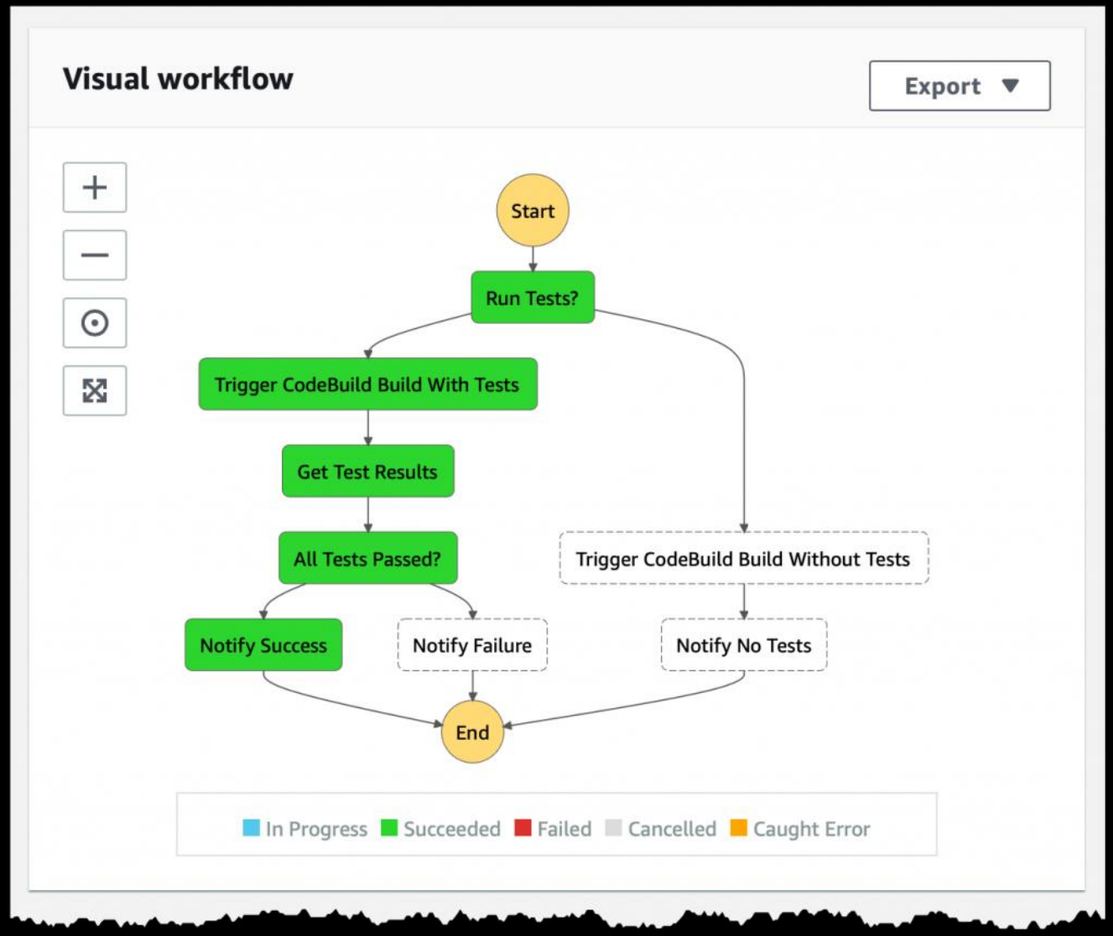
Define builds that run in parallel using all possible combinations of environment configuration



AWS Step Functions integration

Use Step Functions to automate complex builds

Conditionally include builds that do things like static code analysis, test, or integrate results into additional steps



When would I use Step Functions to build?

AWS CodePipeline

- Designed for releasing software through to production
- Use stages as a locking mechanism to ensure a single execution at a time
- Built-in manual approval steps
- Pause and resume, intelligently releasing the most up-to-date versions

Step Functions

- Multiple instances with concurrent execution
- Works well for continuous integration models
- Connects to additional AWS services, such as Amazon Elastic Container Service (Amazon ECS), Amazon EMR, and AWS Glue

Session in review

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Next steps

- Explore CodeBuild in your account using the AWS Free Tier
- Test and debug builds using CodeBuild local
- Sign up to the AWS DevOps Blog for the latest news



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Thank you!

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