

AWS RE:INVENT

re:Cap



re:Invent 2023 Recap



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Federal



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He/Him/His
Sr. Builder SA
Federal



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He/Him/His
Solutions Architect
Federal

PartyRock

Everyone can build
AI apps.

Haiku Creator

Weird Tour Guide

Podcast Generator

Build your own app

App builder

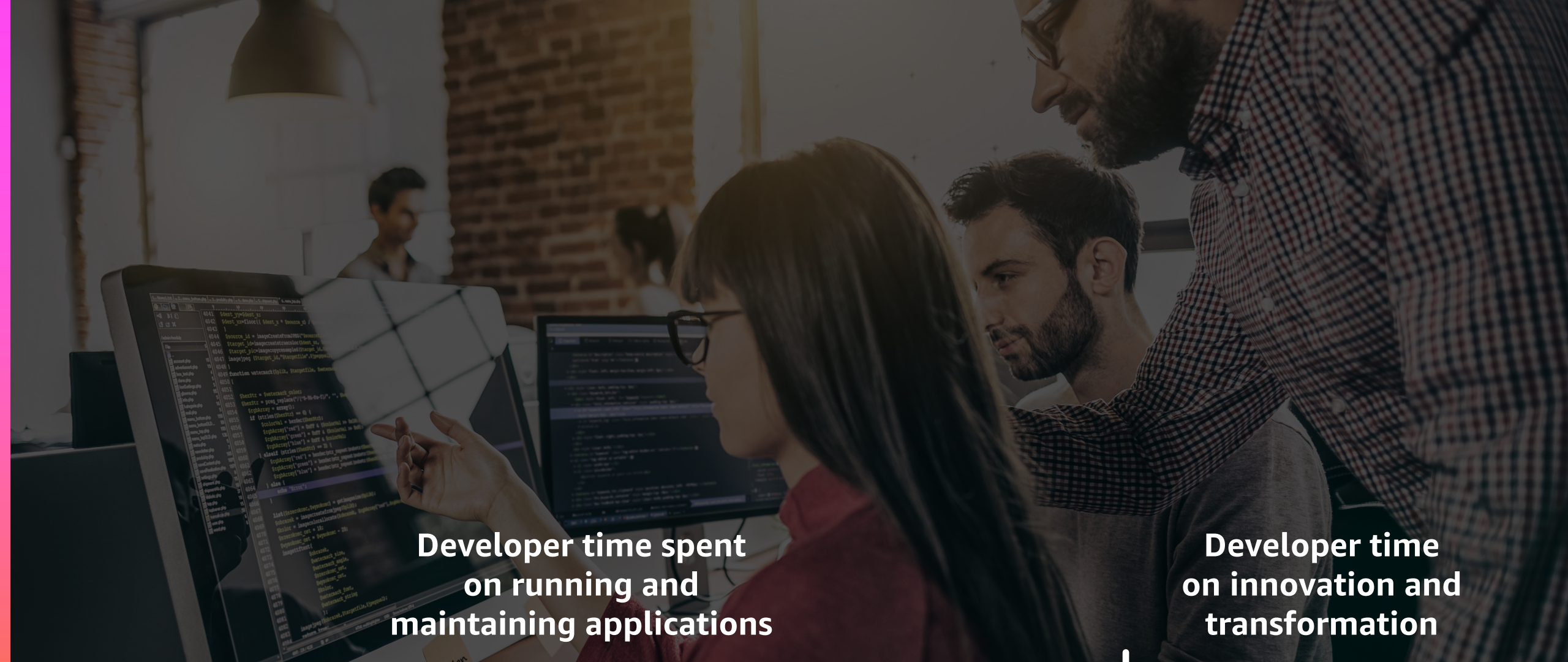
Generate a 5-7-5 syllable haiku poem and a visual image based on user input.



A screenshot of the PartyRock AI application interface. It features a 'User Input' field containing the word 'winter'. Below it is a 'Generated Haiku' section with a green header and a black LLM badge, containing the text: 'Here is a 5-7-5 syllable haiku poem about winter: Snowflakes falling down Blanketing the ground in white Winter's cold embrace'. To the right is a 'Visual LLM' section with a green header and a black LLM badge, displaying a digital painting of a winter landscape with snow-covered ground, bare trees, and misty mountains under a pink and blue sky. The interface includes various icons for settings, copy, and share.

An Amazon Bedrock Playground





Developer time spent
on running and
maintaining applications

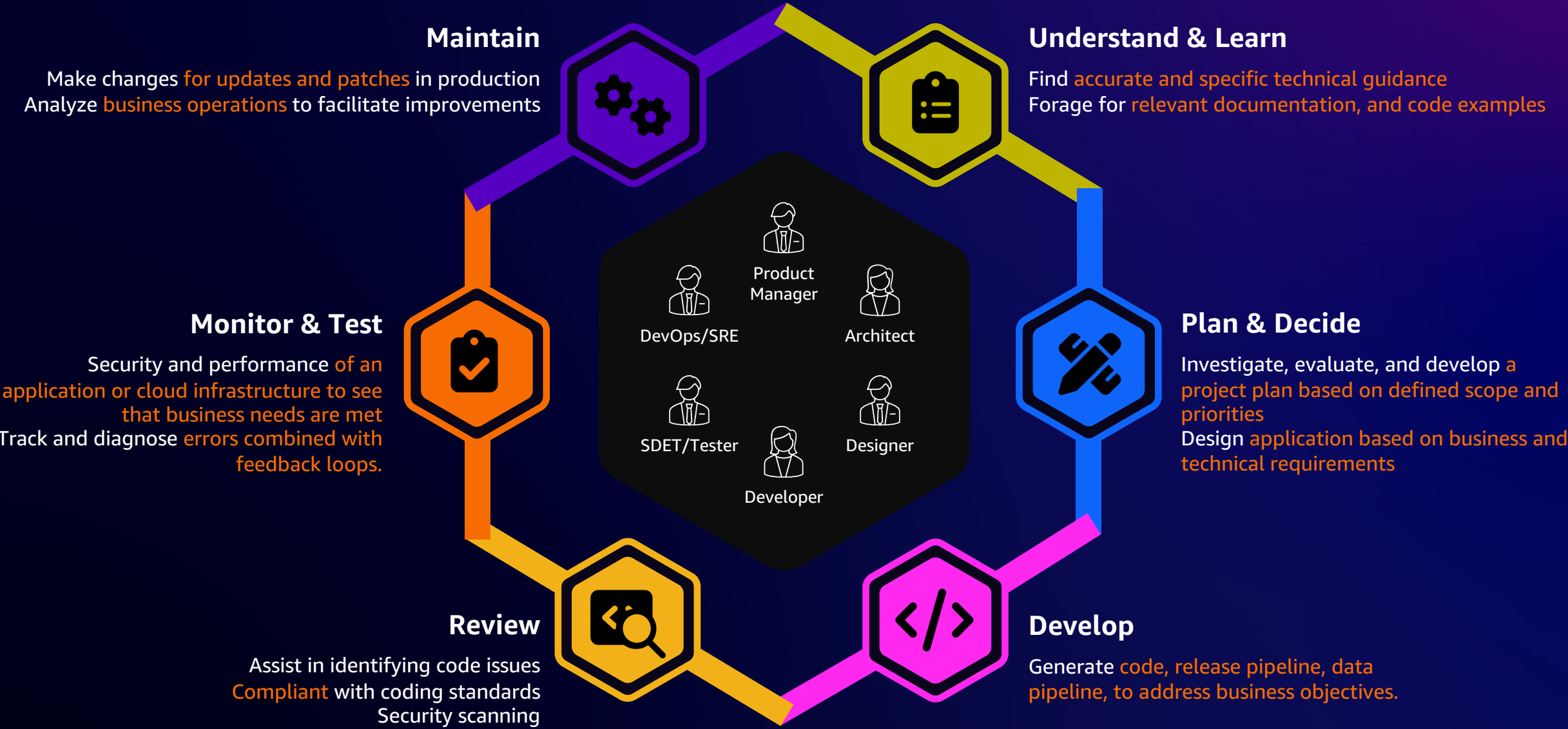
Developer time
on innovation and
transformation

73%

27%



Reinventing across the development lifecycle





Amazon Q transforms the developer experience

Amazon Q: Generative AI Assistant



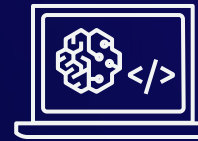
Amazon Q

Your assistant for AWS

PREVIEW



Get quick, accurate answers to questions about AWS and code



Accelerate development tasks with AI assistance



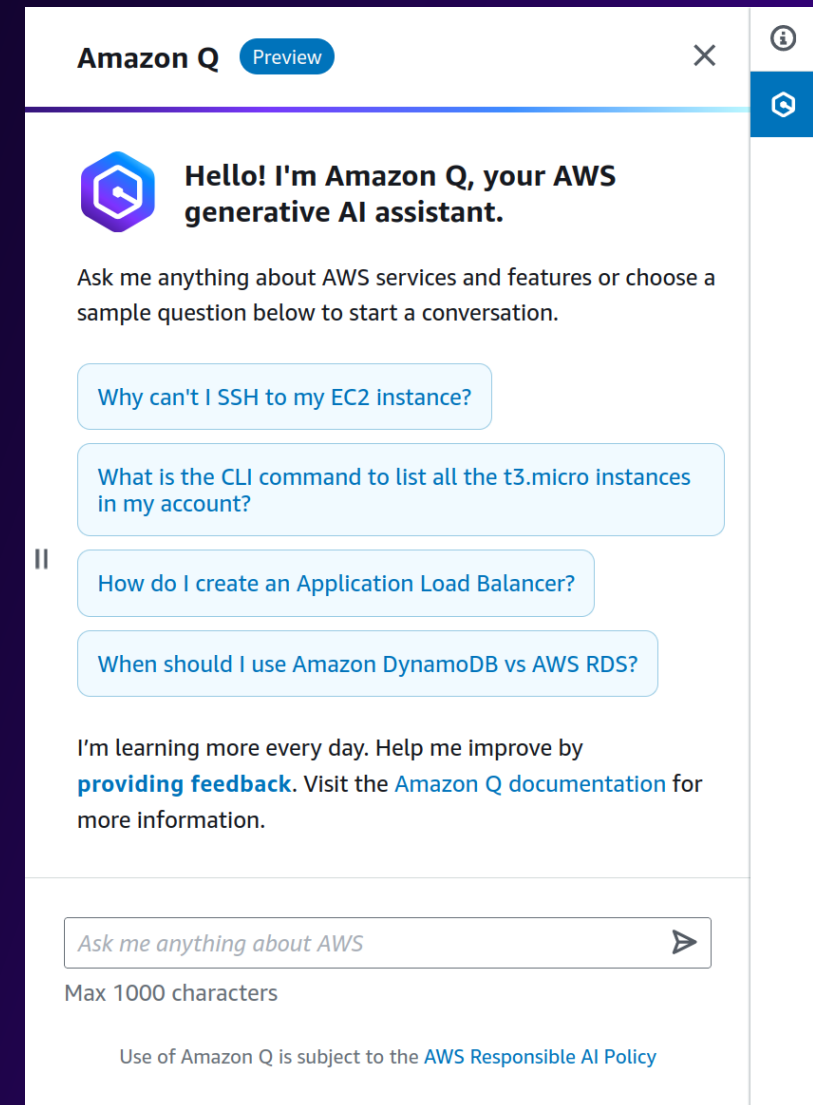
Learn, explore, and take action on your AWS applications



Powered by generative AI and 17 years of AWS expertise

Q helps you learn, explore, and take action

- Ask questions about AWS services and features
- Get guidance on architecture best practices
- Select the optimal EC2 instance type
- Troubleshoot errors and network connectivity issues
- Connect to AWS Support

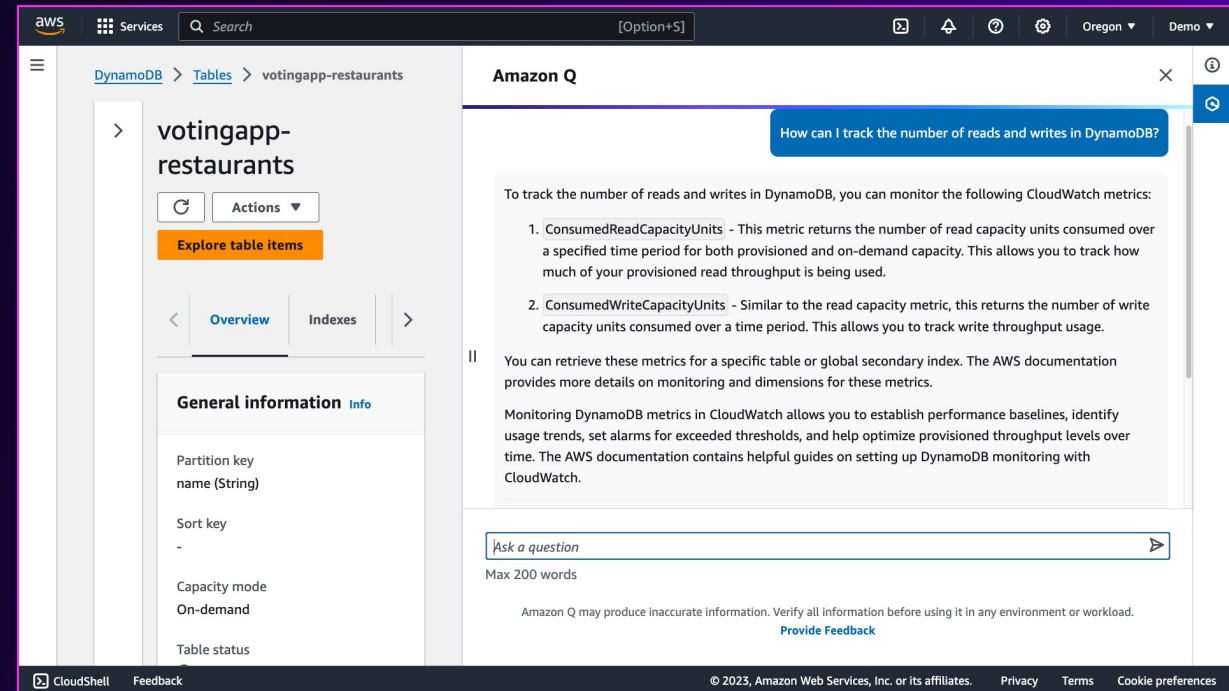


The screenshot shows the Amazon Q Preview interface. At the top, it says "Amazon Q" with a "Preview" button and a close icon. Below that is the Amazon Q logo and a greeting: "Hello! I'm Amazon Q, your AWS generative AI assistant." The text below the greeting says: "Ask me anything about AWS services and features or choose a sample question below to start a conversation." There are four sample questions in light blue rounded rectangles: "Why can't I SSH to my EC2 instance?", "What is the CLI command to list all the t3.micro instances in my account?", "How do I create an Application Load Balancer?", and "When should I use Amazon DynamoDB vs AWS RDS?". Below these is a message: "I'm learning more every day. Help me improve by **providing feedback**. Visit the [Amazon Q documentation](#) for more information." At the bottom, there is a text input field with the placeholder "Ask me anything about AWS" and a send button. Below the input field, it says "Max 1000 characters" and "Use of Amazon Q is subject to the [AWS Responsible AI Policy](#)".

Amazon Q conversational Q&A

Chat with Amazon Q to explore
new AWS capabilities and architect
solutions

AVAILABLE IN PREVIEW



The screenshot shows the AWS Management Console interface. On the left, the 'votingapp-restaurants' table is selected under 'DynamoDB > Tables'. The 'General information' section shows the partition key as 'name (String)' and the capacity mode as 'On-demand'. On the right, the Amazon Q chat interface is open, displaying a question: 'How can I track the number of reads and writes in DynamoDB?'. The answer provided by Amazon Q is:

To track the number of reads and writes in DynamoDB, you can monitor the following CloudWatch metrics:

1. **ConsumedReadCapacityUnits** - This metric returns the number of read capacity units consumed over a specified time period for both provisioned and on-demand capacity. This allows you to track how much of your provisioned read throughput is being used.
2. **ConsumedWriteCapacityUnits** - Similar to the read capacity metric, this returns the number of write capacity units consumed over a time period. This allows you to track write throughput usage.

You can retrieve these metrics for a specific table or global secondary index. The AWS documentation provides more details on monitoring and dimensions for these metrics.

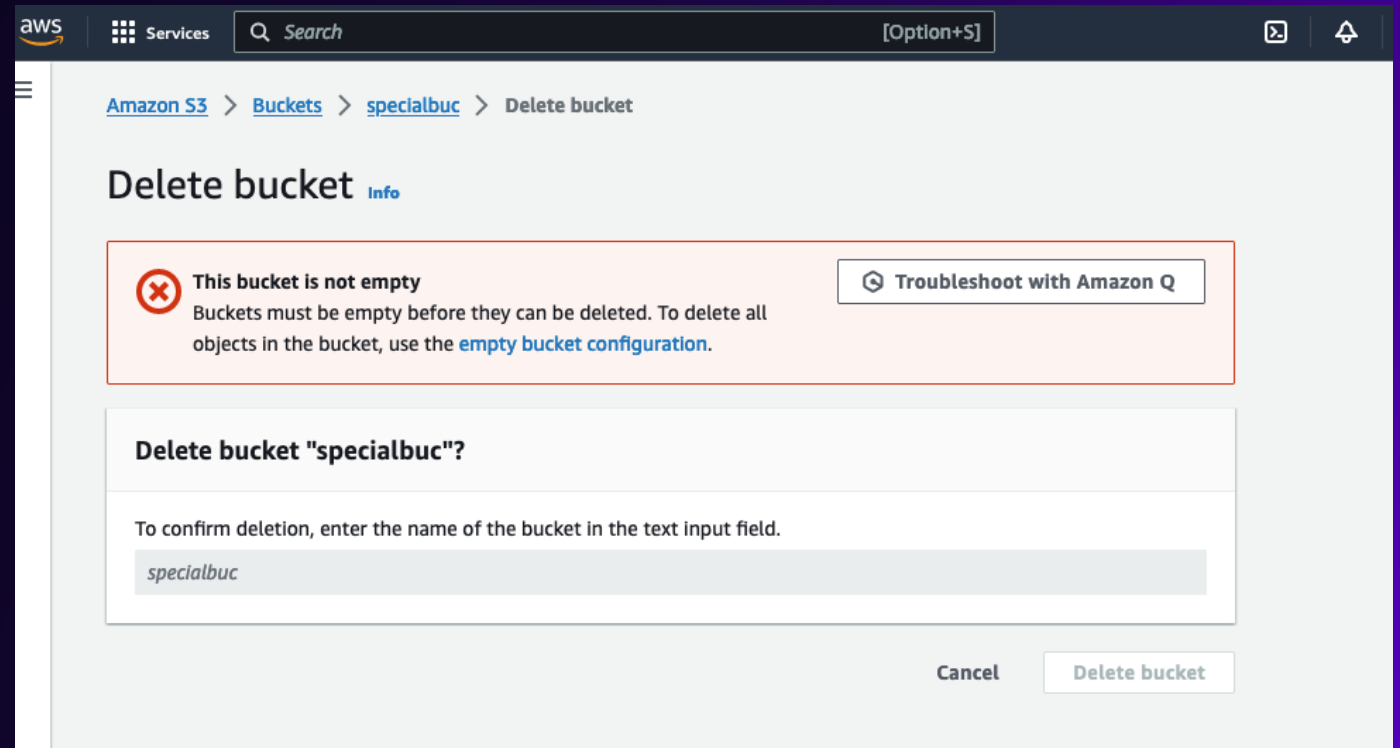
Monitoring DynamoDB metrics in CloudWatch allows you to establish performance baselines, identify usage trends, set alarms for exceeded thresholds, and help optimize provisioned throughput levels over time. The AWS documentation contains helpful guides on setting up DynamoDB monitoring with CloudWatch.

Below the answer is an input field labeled 'Ask a question' with a 'Max 200 words' limit and a 'Provide Feedback' link.

Amazon Q troubleshooting

Diagnose and troubleshoot
errors in a fraction of the time


AVAILABLE IN PREVIEW



aws Services Search [Option+S]

Amazon S3 > Buckets > specialbuc > Delete bucket

Delete bucket [Info](#)

 **This bucket is not empty**
Buckets must be empty before they can be deleted. To delete all objects in the bucket, use the [empty bucket configuration](#).

[Troubleshoot with Amazon Q](#)

Delete bucket "specialbuc"?

To confirm deletion, enter the name of the bucket in the text input field.

Cancel

Lambda > Functions > support-cases-FlaskFunction2-jv0rSx0MF1xs

support-cases-FlaskFunction2-jv0rSx0MF1xs

Throttle

Copy ARN

Actions ▾

📘 This function belongs to an application. [Click here](#) to manage it.

▼ Function overview [Info](#)

 support-cases-FlaskFunction2-jv0rSx0MF1xs

 Layers (0)

Description

-

Last modified

3 days ago

Function ARN

 arn:aws:lambda:us-west-2:012345678910:function:support-cases-FlaskFunction2-jv0rSx0MF1xs

Application

[support-cases](#)

Function URL [Info](#)

-

 API Gateway

+ Add trigger

+ Add destination

Code

Test

Monitor

Configuration

Aliases

Versions

Test event [Info](#)

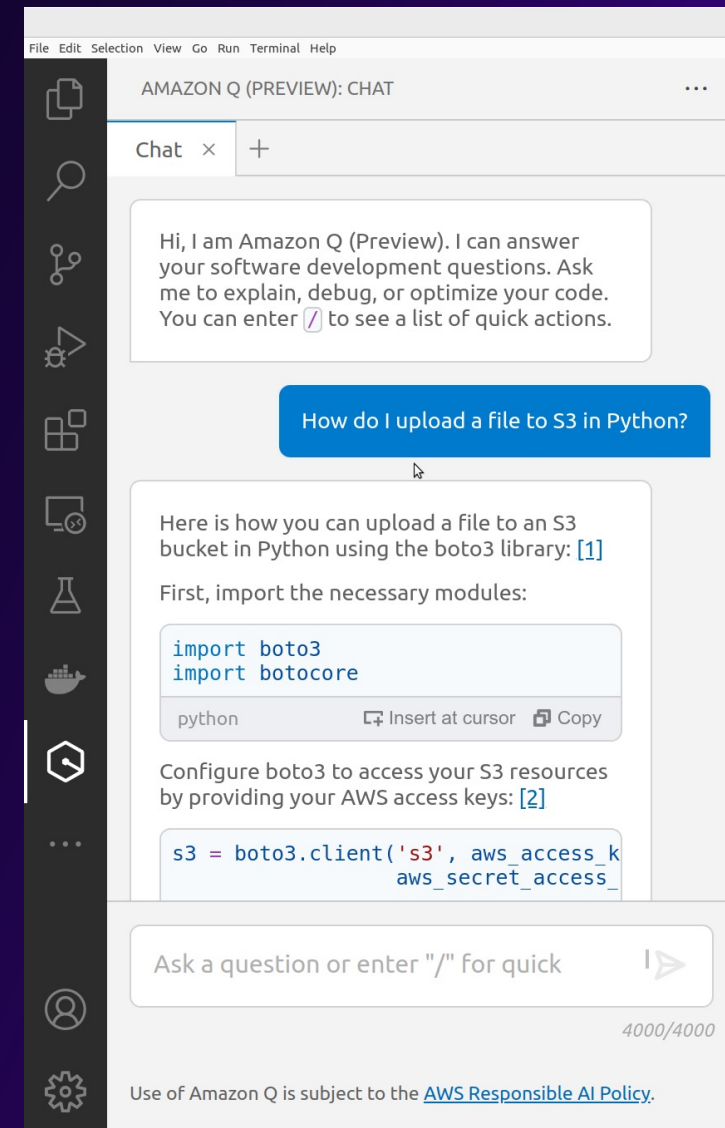
Delete

Save

Test

Q helps you with your development tasks

- Ask questions about your code
- Refactor, optimize, and fix code
- Write tests
- Plan and write complex features
- Summarize pull requests and code review feedback
- Upgrade programming languages



> _pyscache_
> .aws-sam
> preparation
aws
⚙ app.py
📄 requirement.txt
⚙ samconfig.toml
📄 .mention-bot
📄 .yarnrc
! template.yaml

```
1 import os
2 from flask import Flask, request, jsonify
3 from flask_cors import CORS, cross_origin
4 import boto3
5 import uuid
6 import json
7
8 app = Flask(__name__)
9
10 cors = CORS(app, resources={r"/api/*": {"Access-Control-Allow-Origin": "*"}})
11
12 # Initialize DynamoDB client
13 ddb_aws_region = os.getenv('DDB_AWS_REGION', "us-west-2")
14 ddb_table_name = os.getenv('DDB_TABLE_NAME', "support-cases")
15
16 ddb = boto3.resource('dynamodb', region_name=ddb_aws_region)
17 ddbtable = ddb.Table(ddb_table_name)
18
19 def create_case(data=None):
20     if data is None:
21         # If no data provided, set a default value or return an error
22         data = {}
23         # Alternatively, handle the error
24         return {
25             'statusCode': 400,
26             'body': json.dumps({'error': 'No data provided'}),
27             'headers': {'Content-Type': 'application/json'}
28         }
29         # Proceed with creating a case using the provided data
30
31     # Generate a unique case ID
32     caseid = str(uuid.uuid4())
33
34     # Put the new item into the DynamoDB table
35     ddbtable.put_item(Item={
36         'caseid': caseid,
37         'title': data['title'],
38         'description': data['description'],
39         'status': 'open',
40         # Add any other fields you need
41     })
42     # Return a successful response
43     return {
44         "statusCode": 200,
45         "body": caseid
46     }
47
48 @app.route('/')
49 def home():
50     html = "<h1>Welcome to the Support Cases App</h1><p><b>To create a new support case, you can make a post API call <p>/create_case</p> <b>To query the cases,"
51     return {
52         "statusCode": 200,
53         "body": html,
54         "headers": {
55             "Content-Type": "text/html"
56         }
57     }
```

Amazon Q feature development

Ship new features in a fraction
of the time

AVAILABLE IN PREVIEW

IDE CODE GENERATION CAPABILITIES COMING SOON

Go from natural language
prompt to feature
implementation plan

Focus on end-to-end features

Available in Amazon
CodeCatalyst and coming soon
to the IDE





AMAZON Q (PREVIEW): CHAT

Chat × Q - Dev × +

population size

4. Import and call test from app.py

- In app.py
 - Add `import test_app` after other imports
 - Call `test_app.test_get_population_size()` after `if __name__ == '__main__'`

This implements the new API endpoint to get the voting population size from DynamoDB. The existing DynamoDB access code is reused. Tests validate the API functions as expected.

Would you like me to generate a suggestion for this? You will be able to review a file diff before inserting code in your project.

Generating code ...

Writing code ...

4000/4000

... app.py ×

▶ ▢ ...

app.py > bucadibeppo

```

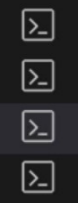
63     }
64 }
65
66
67 def incrementvote(restaurant):
68     ddbtable.update_item(
69         Key={'name': restaurant},
70         UpdateExpression='SET restaurantcount = restaurantcount + :inc',
71         ExpressionAttributeValues={
72             ':inc': 1
73         }
74     )
75
76 @app.route("/api/outback")
77 def outback():
78     incrementvote("outback")
79
80     return {
81         "statusCode": 200
82     }
83

```

TERMINAL OUTPUT

📄 deploy + ▢ 🗑️ ... ^ ×

○ → votingapp



Amazon Q Code Transformation

Upgrade and transform apps
in a fraction of the time

AVAILABLE IN PREVIEW

Complete language upgrades
in a fraction of the time

Enhance security posture and
performance

Accelerate migration from
Windows to Linux (coming
soon)



Project

- word-cloud-generator ~/Downloads/summarize-my-document
 - .idea
 - src
 - main
 - java
 - wordcloud
 - WordCloudGenerator
 - WordCloudRequest
 - WordCloudResponse
 - test
 - target
 - .gitignore
 - install-fontconfig.sh
 - pom.xml
 - External Libraries
 - Scratches and Consoles

AWS Toolkit

Connected with IAM Identity Center Session (tongia)

Codewhisperer + Q Explorer Developer Tools

- CodeWhisperer IAM Identity Center Connected
 - Inline Suggestions Enabled
 - Run Security Scan
 - Learn
- Amazon Q (Preview)
 - Chat with Q
 - Transform

```
26 import sun.misc.BASE64Encoder;
27
28 /**
29  * Handler for requests to Lambda function.
30  */
31 public class WordCloudGenerator implements RequestHandler<APIGatewayProxyRequest, APIGatewayProxyResponse> {
32
33     public Logger logger = LogManager.getLogger();
34     private final ObjectMapper mapper = new ObjectMapper();
35
36     public APIGatewayProxyResponseEvent handleRequest(final APIGatewayProxyRequestEvent request,
37     Map<String, String> headers = new HashMap<>();
38     headers.put("Content-Type", "application/json");
39     headers.put("X-Custom-Header", "application/json");
40
41     APIGatewayProxyResponseEvent response = new APIGatewayProxyResponseEvent(request, headers)
42     .withHeaders(headers);
43     try {
44         logger.debug("Request: " + input.getBody());
45         WordCloudRequest request = mapper.readValue(input.getBody(), WordCloudRequest.class);
46
47         final FrequencyAnalyzer frequencyAnalyzer = new FrequencyAnalyzer(request.getWords());
48         final List<WordFrequency> wordFrequencies = frequencyAnalyzer.load();
49         Integer side = new Integer(value: 400);
50         final Dimension dimension = new Dimension(side, side);
51         final WordCloud wordCloud = new WordCloud(dimension, CollisionMode.FIT,
52         wordCloud.setPadding(0);
53         wordCloud.setBackground(new RectangleBackground(dimension));
54
55         wordCloud.setBackground(Color.WHITE);
56         wordCloud.setColorPalette(new ColorPalette(
57             new Color( rgb: 0x7ce8f4), // Cyan
58             new Color( rgb: 0x7c5aed), // Violet
59             new Color( rgb: 0xdf2a5d), // Cosmos
60             new Color( rgb: 0x330066), // Galaxy
61             new Color( rgb: 0x232f3e) // Squid Ink
62         ));
63
```

Maven

- word-cloud-generator-function
 - Lifecycle
 - clean
 - validate
 - compile
 - test
 - package
 - verify
 - install
 - site
 - deploy
 - Plugins
 - Dependencies



Amazon Q Code Transformation

1,000

Java applications

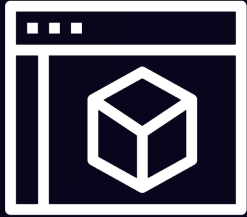
2

Days

10

Minutes each,
on average

Q is available where you do your work



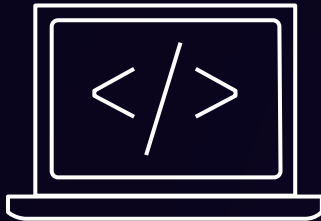
AWS Management
Console



AWS
Documentation



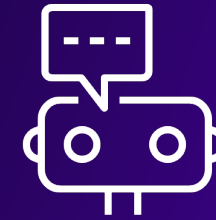
AWS Console
Mobile App



IDEs
(via CodeWhisperer
extension)



Amazon
CodeCatalyst



Slack and Teams
(via AWS
Chatbot)

Available Plans

NO CHARGE FOR MANY
CAPABILITIES DURING PREVIEW

Amazon Q Business

\$20/mo.
per-user (minimum of 10 users)

The Amazon Q Business plan gives you an expert assistant tailored to your business to help all your employees get comprehensive answers to business questions, accelerate tasks, and derive insights from data.

Amazon Q Builder

\$25/mo.
per-user

The Amazon Q Builder plan gives your all your IT employees the expert assistance of the Amazon Q Business plan plus Amazon Q's expert assistance building, operating, and transforming applications on AWS.

Amazon CodeWhisperer



Amazon CodeWhisperer



Sign up for free

Generate code suggestions in real time

Flag code that resembles open-source training data or filter by default

Scan code and remediate hard-to-find vulnerabilities





Use with your tools

New IaC Support

Supported ecosystem
programming languages

Python

Java

JavaScript

TypeScript

Rust

PHP

Kotlin

SQL

C#

Go

NEW

CloudFormation

CDK

Terraform

AND

Ruby, C, C++, Shell scripting, and Scala



Use with your tools

New IDE Visual Studio Support

Supported ecosystem

IDEs

JetBrains (incl. PyCharm, IntelliJ IDEA, WebStorm, CLion, PhpStorm, GoLand)

VS Code

NEW

Visual Studio 2022

AWS Cloud9

AWS Lambda console

Amazon SageMaker Studio, AWS Glue Studio



Amazon CodeWhisperer new enhancements

YOUR AI-POWERED PRODUCTIVITY TOOL



- Available in Visual Studio 2022 (in preview)
- Supports infrastructure as code (IaC), AI-powered code remediation, expanded language support for security scanning
- Suggestions and completions for AWS CloudFormation (YAML, JSON), AWS CDK (Python, TypeScript), and HashiCorp Terraform (HCL)
- Security scanning and code suggestions to remediate vulnerabilities for Java, Python, JavaScript



AI-powered code remediation

- Built-in security scanning identifies hard-to-find security vulnerabilities (**already existed**)
- AI-powered code remediation capability now provides code suggestions to remediate identified vulnerabilities with just a few clicks (**New**)
- How does it work?
 - When a security scan is run in CodeWhisperer, any detected vulnerabilities will have an associated code fix suggestion. Developers can simply review and apply the fix with a few clicks/keystrokes to resolve the issue
- AI-powered code remediation capability currently supports Java, Python and JavaScript
- **New Language Support for security scanning** - TypeScript, C#, AWS CloudFormation (YAML, JSON), AWS CDK (TypeScript, Python), and HashiCorp Terraform (HCL)

```
2
3 # Run the security scan to find security vulnerabilities in your code.
4 # Apply the suggested remediation with just 1-click.
5
6 def read_file(filename):
7     file = open(filename, 'r')
8     return file.readlines()
9
10
11
```

Resource leak

Medium

Resource leaks happen when resources like files, network connections, database handles, etc. are allocated but not properly released after use. [Learn more](#)

Common Weakness Enumeration (CWE)
CWE-400 [🔗](#) CWE-664 [🔗](#)

Detector library
Resource leak [🔗](#)

Suggested code fix preview

```
def read_file(filename):
-   file = open(filename, 'r')
-   return file.readlines()
+   with open(filename, 'r') as f:
+       return f.readlines()
```

Why are we recommending this?

The 'with' statement in Python can be used to access resources without having to close them explicitly. Python will close them for you.

NEW

Amazon CodeWhisperer customization capability

Generate code
recommendations based on
your internal repositories

AVAILABLE IN PREVIEW TODAY

Better and more relevant
code suggestions

Onboard developers faster

Your data is never used to
train the underlying model



Customize for your org

In Preview

GENERATE CODE RECOMMENDATIONS BASED ON YOUR INTERNAL CODE REPOSITORIES

```
1 // Process a list of unassigned food deliveries around the driver's current location
2 package anycompany.fooddelivery.fulfillment;
3 import anycompany.delivery.Delivery;
4 import anycompany.delivery.DeliveryService;
5 import anycompany.driver.Driver;
6 import anycompany.driver.DriverLocationService;
7
8 public class FoodDeliveryFulfillment {
9     private DeliveryService deliveryService;
10    private DriverLocationService driverLocationService;
11
12    //Process all the unassigned deliveries
13    public void processUnassignedDeliveries(){
14        List<Delivery> unassignedDeliveries = deliveryService.getUnassignedDeliveries();
15        //Iterate over all the unassigned deliveries and assign them to a driver
16        for (Delivery delivery : unassignedDeliveries) {
17            //Get the nearest drivers for delivery location
18            List<Driver> drivers = driverLocationService.getDriver(delivery.getLocation());
19            for (Driver driver : drivers) {
20                //Assign delivery to driver and send notification
21                boolean isAssigned = deliveryService.assignDeliveryToDriver(delivery, driver);
22                if (isAssigned) {
23                    deliveryService.notifyDelivery(delivery);
24                    driverLocationService.notifyDriver(driver);
25                    break;
26                }
27            }
28        }
29    }
30    ...
31 }
```

Natural language comment prompt

Generated code block that leverages internal libraries and APIs

CodeWhisperer Customization Demo

PREVIEW

The screenshot shows a GitHub repository page for 'aws-serverless-e-commerce-platform'. The repository is public and has 46 watchers, 343 forks, and 1k stars. The main branch is selected, and there are 12 branches and 0 tags. A merge pull request #201 is visible, merged on Mar 27, 2022, with 625 commits. The repository contains several folders: .github/workflows, delivery-pricing, delivery, docs, frontend-api, orders, payment-3p, payment, pipeline, platform, and products. The 'About' section describes the repository as a sample implementation of a serverless backend for an e-commerce website, intended as an inspiration for building event-driven serverless microservices on AWS. The 'About' section also lists tags: aws, lambda, microservices, serverless, api-gateway, appsync, and eventbridge. The 'About' section also lists: Readme, MIT-0 license, Code of conduct, Security policy, Activity, 1k stars, and 46 watching.

Folder	Commit Message	Time Ago
.github/workflows	fix: running test on main branch	2 years ago
delivery-pricing	chore: bump Lambda insights version to 1.0.98.0	2 years ago
delivery	chore: bump Lambda insights version to 1.0.98.0	2 years ago
docs	Update Python version to 3.9	2 years ago
frontend-api	chore: bump Lambda insights version to 1.0.98.0	2 years ago
orders	chore: bump Lambda insights version to 1.0.98.0	2 years ago
payment-3p	chore(deps): bump minimist from 1.2.5 to 1.2.6 in /payment-3p	last year
payment	chore: bump Lambda insights version to 1.0.98.0	2 years ago
pipeline	chore: bump Lambda insights version to 1.0.98.0	2 years ago
platform	chore: bump Lambda insights version to 1.0.98.0	2 years ago
products	chore: bump Lambda insights version to 1.0.98.0	2 years ago

Customize for your org

In Preview

GENERATE CODE RECOMMENDATIONS BASED ON YOUR INTERNAL CODE REPOSITORIES

Get started



Sign up to get notified when the customization capability becomes available

Learn more



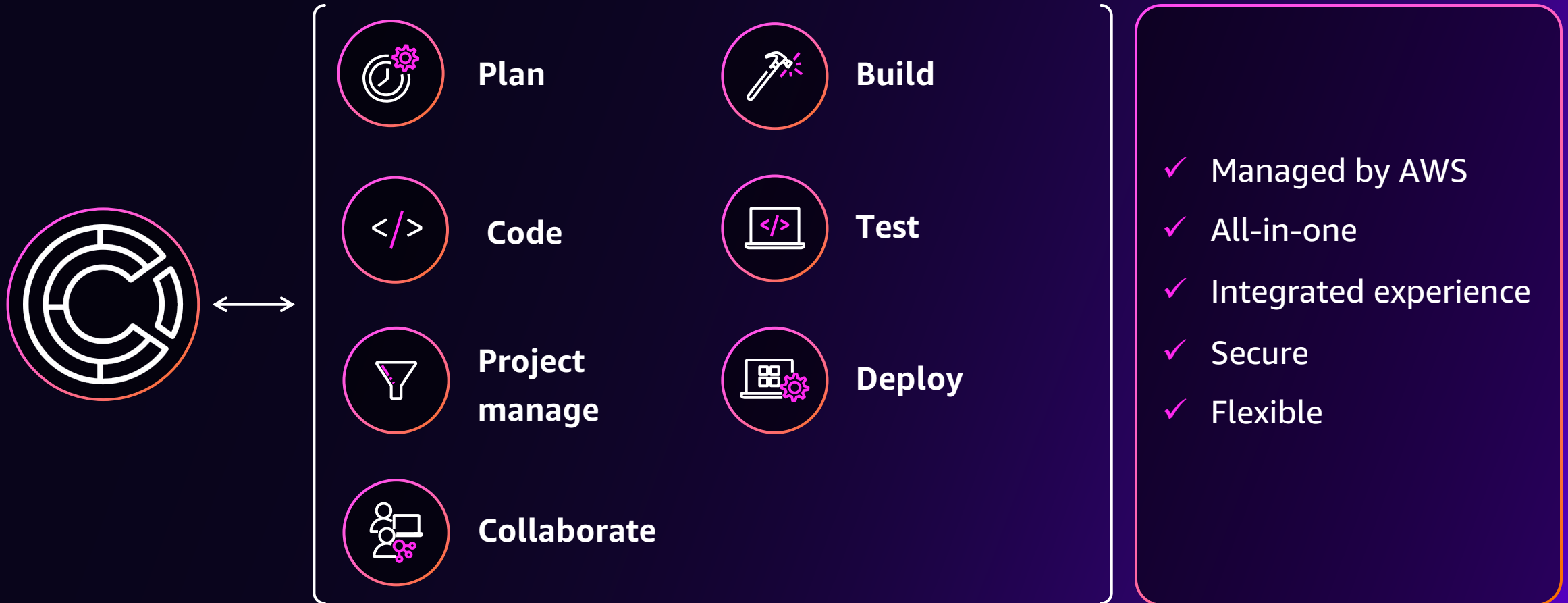
Talk to a specialist

Amazon CodeCatalyst



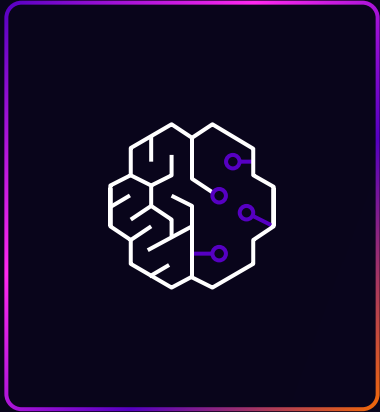
Amazon CodeCatalyst

UNIFIED PLATFORM FOR TEAMS TO GO FROM PLANNING TO PRODUCTION FASTER, ON AWS

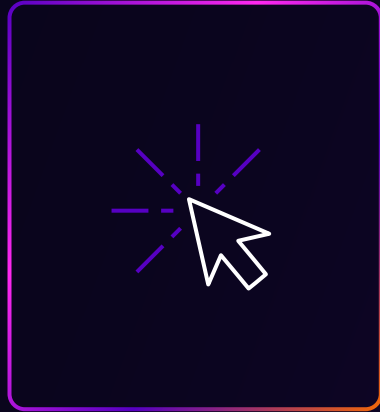


Amazon CodeCatalyst: benefits

LAUNCHED IN GA APRIL 2023



**Improve
productivity with
generative AI**



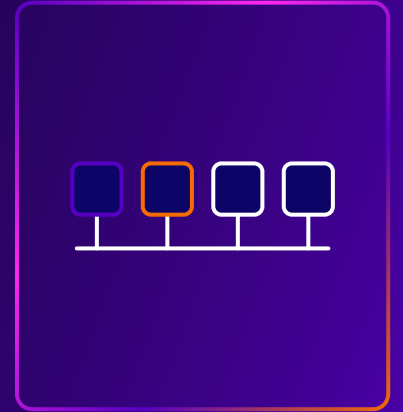
**Accelerate projects
with codified best
practices**



**Collaborate and
scale fluidly**



**Automate
environments**



**Automate daily
workflows**

Accelerate project setup

APPLICATION BLUEPRINTS



Set up integrated
project tools in minutes

Select from a library
of well-architected
application blueprints

Continue using
GitHub or Jira

Continue working with
existing projects

builders-experience > Create project

Create project

Project details

Project Name ✓

MythicalSocialApp

The project name can have up to 32 characters.

Project description - *optional*

input text

The project description can have up to 1,000 characters.

AWS Modern Application Reference Implementation blueprint configurations

Application name

Please add a name for your application

mysfitslaa2e

Compute platform

Compute Platform

Lambda

ECS Fargate

Region

Deployment region

us-east-1

▼ Environment

Environment name

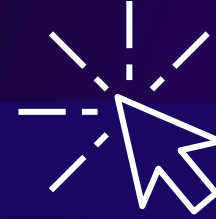
Examples of environment names are development, test, staging and production.



Codify best practices across your organization

NEW

GENERALLY AVAILABLE FOR ENTERPRISE TIER



Amazon CodeCatalyst Initech Projects Search code, issues, projects, and users

Initech Projects Activity Settings

Space blueprints > Base Lambda Stack

Details [Delete blueprint](#) [Remove blueprint from catalog](#)

Description
This blueprint creates a base lambda CDK stack

Catalog status
In catalog

Last updated
2 days ago

Versions [Create project with version](#) [Delete version](#) [Make catalog version](#)

Find blueprint versions

Version	Description	Last updated
1.0.1 Catalog version	This blueprint creates a base lambda CDK stack	2 days ago
1.0.0	This blueprint creates a base lambda CDK stack	2 days ago

Projects Find projects

Project name	Blueprint info
LambdaDemo	Uses catalog version 1.0.1
LandingPage	Does not use this blueprint
application-frontend	Does not use this blueprint

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IT leaders or platform engineering teams can build custom well-architected templates for their developer teams

Updates to blueprints will alert teams and create automatic Pull Requests which developers can review and merge to update their projects

IT leaders can also view the status of all projects created from their custom blueprint, to assess best practice adherence at scale





Amazon Q in CodeCatalyst

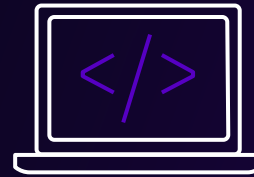
NEW



Summarize
source
repository



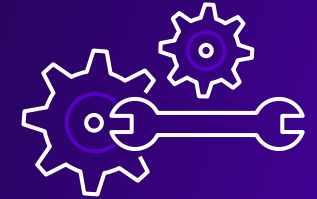
Develop an
approach



Author
code



Create pull
request



Monitor
workflows and
resolve errors

dwa

Issues Active issues 2

Overview

Issues

Code

CI/CD

Reports

Packages

Blueprints

Project settings

Search by title or content

All

Filter 1

Group

Sort by Manual order

Create issue

To do 0

In progress 1

In review 1

Done 0

Financial check extraction

2 Updated 8 minutes ago

-



Create an extractor to extract various data from financial check

1 Updated a month ago

-



Tell us what you think!

We want to hear from you about what you like, what you'd like to see, and where we can improve.

Give feedback

Infrastructure as Code



AWS Infrastructure as Code Portfolio

Platform operations and deployment



AWS Amplify



AWS Service Catalog



AWS CDK, AWS SAM, CoPilot, AppComposer



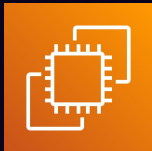
AWS CloudFormation



AWS Cloud Control API



AWS CloudFormation resource registry



Amazon EC2



AWS Transit Gateway



Amazon S3



Amazon Kinesis



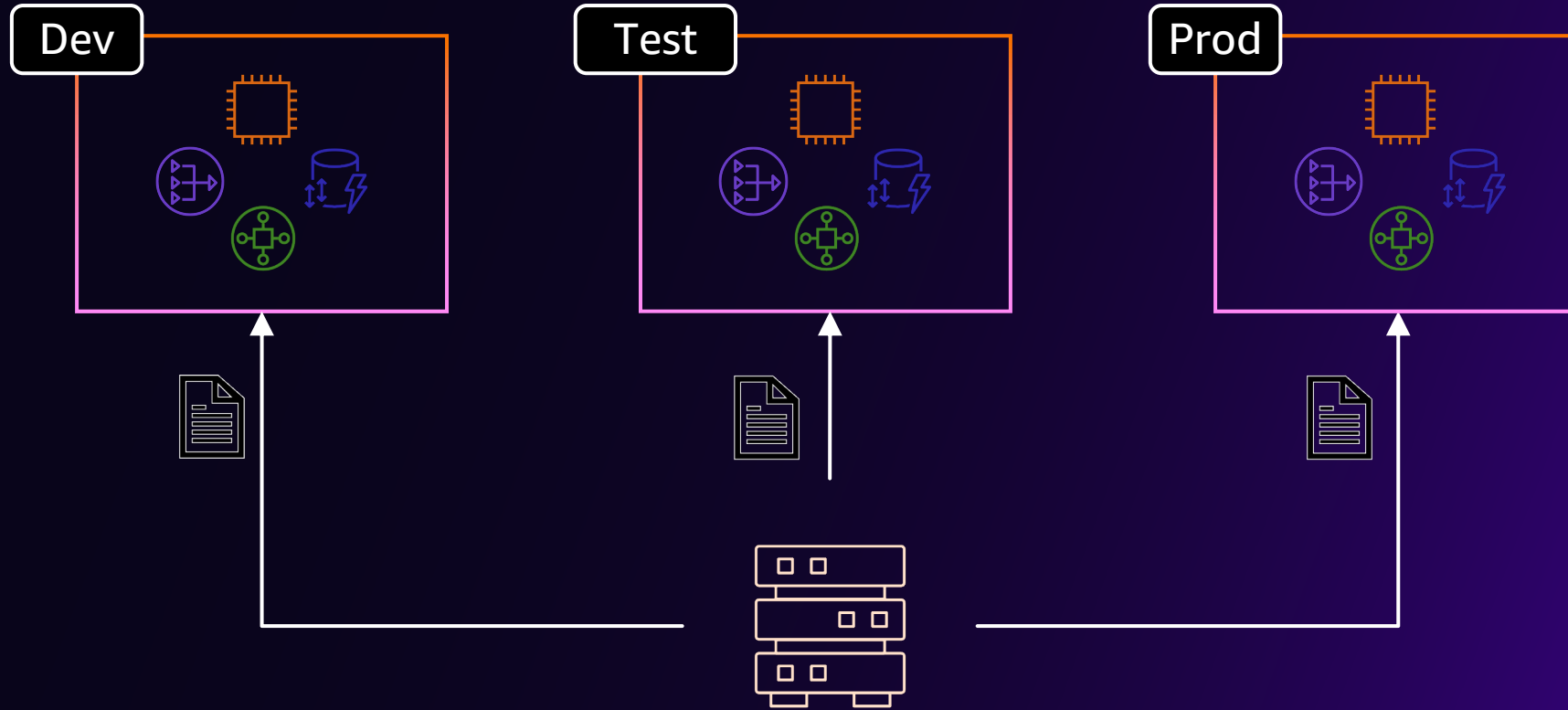
Amazon Kendra



+100s of AWS and third-party resources



AWS Infrastructure as Code



AWS CloudFormation and AWS CDK provide consistent and predictable deployments

AWS CDK - Infrastructure as Code

A MODERN WAY TO BUILD YOUR AWS INFRASTRUCTURE



Familiar
Your language
Just classes and methods



Tool Support
AutoComplete
Inline documentation



Abstraction
Sane defaults
Reusable classes

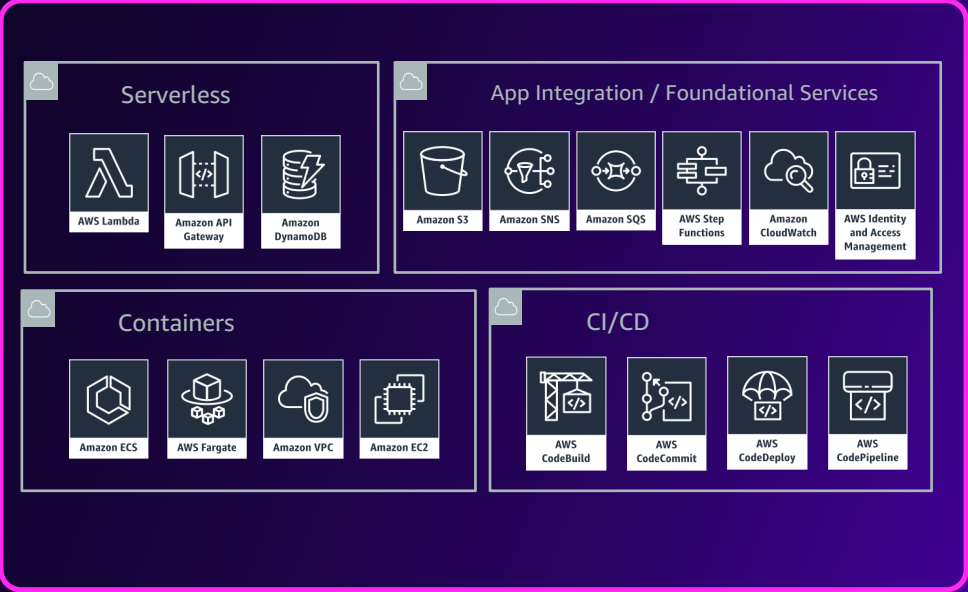


AWS CDK - Infrastructure as Code

MAIN COMPONENTS



Core Framework



AWS Construct Library

Visually create infrastructure templates

The screenshot displays the AWS Application Composer interface. On the left, a sidebar titled "Application Composer" contains a "Resources" section with a search bar and a list of AWS services: DynamoDB Table, EventBridge Event rule, EventBridge Schedule, Kinesis Stream, Lambda Function, Lambda Layer, RDS Database (External), and S3 Bucket. The main workspace is titled "Canvas" and shows a visual diagram of an infrastructure template. The diagram consists of an API Gateway named "UserApi" with three endpoints: GET /user/{id}, POST /user, and GET /users. These endpoints are connected to three Lambda Functions: GetUser, SaveUser, and ListUsers. All three Lambda Functions are connected to a single DynamoDB Table named "Users". The interface includes navigation buttons for "Canvas", "Template", and "Arrange", as well as undo and redo icons. A "Menu" dropdown is visible in the top right corner.

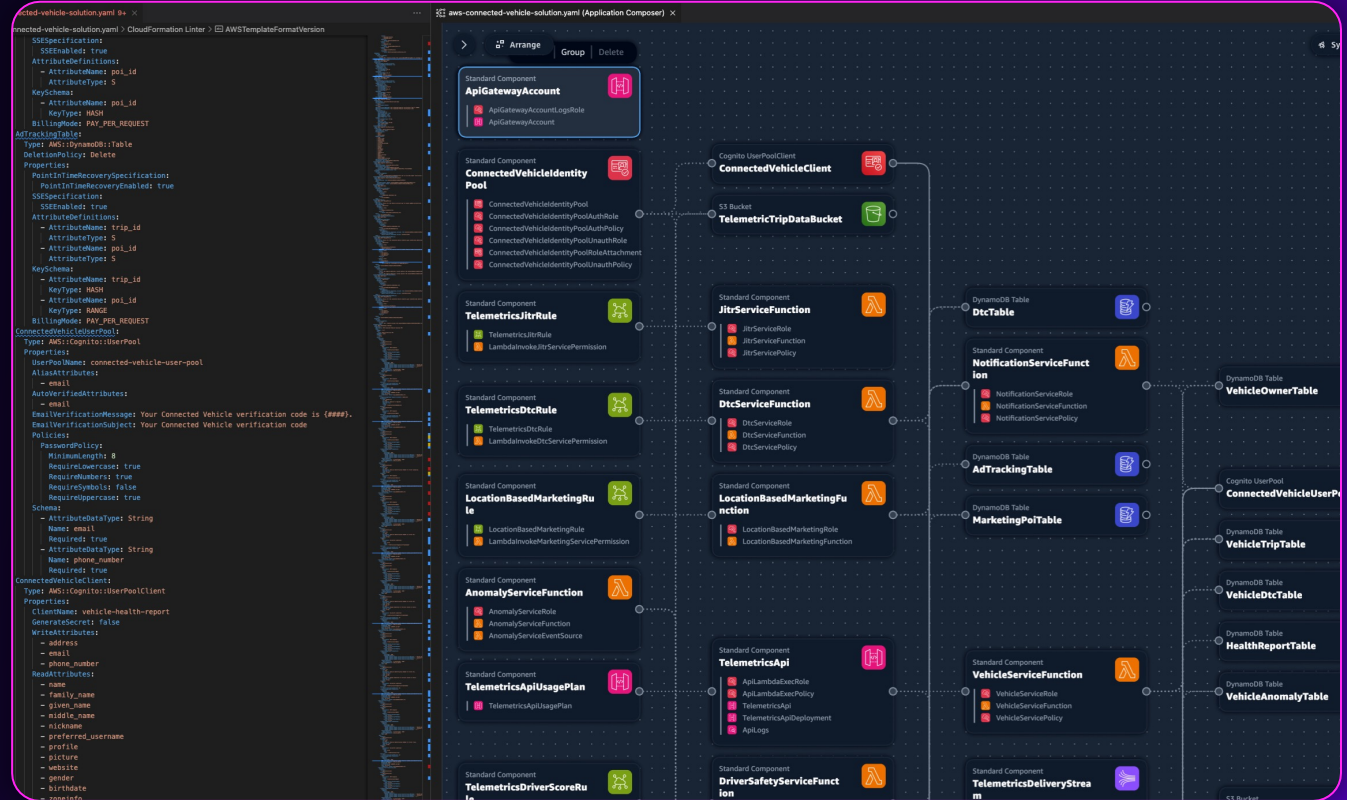


NEW

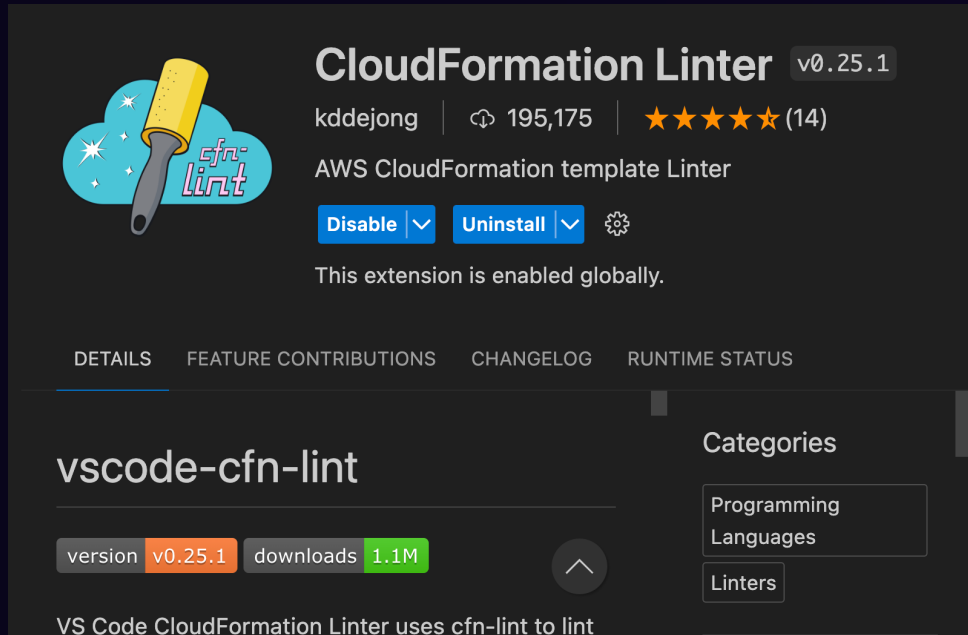
AWS Application Composer in VS Code

Extend visual IaC authoring to Visual Studio Code IDE

GENERALLY AVAILABLE



Validate CloudFormation templates



CloudFormation Linter v0.25.1
kddejong | 195,175 | ★★★★★ (14)
AWS CloudFormation template Linter

Disable **Uninstall**

This extension is enabled globally.

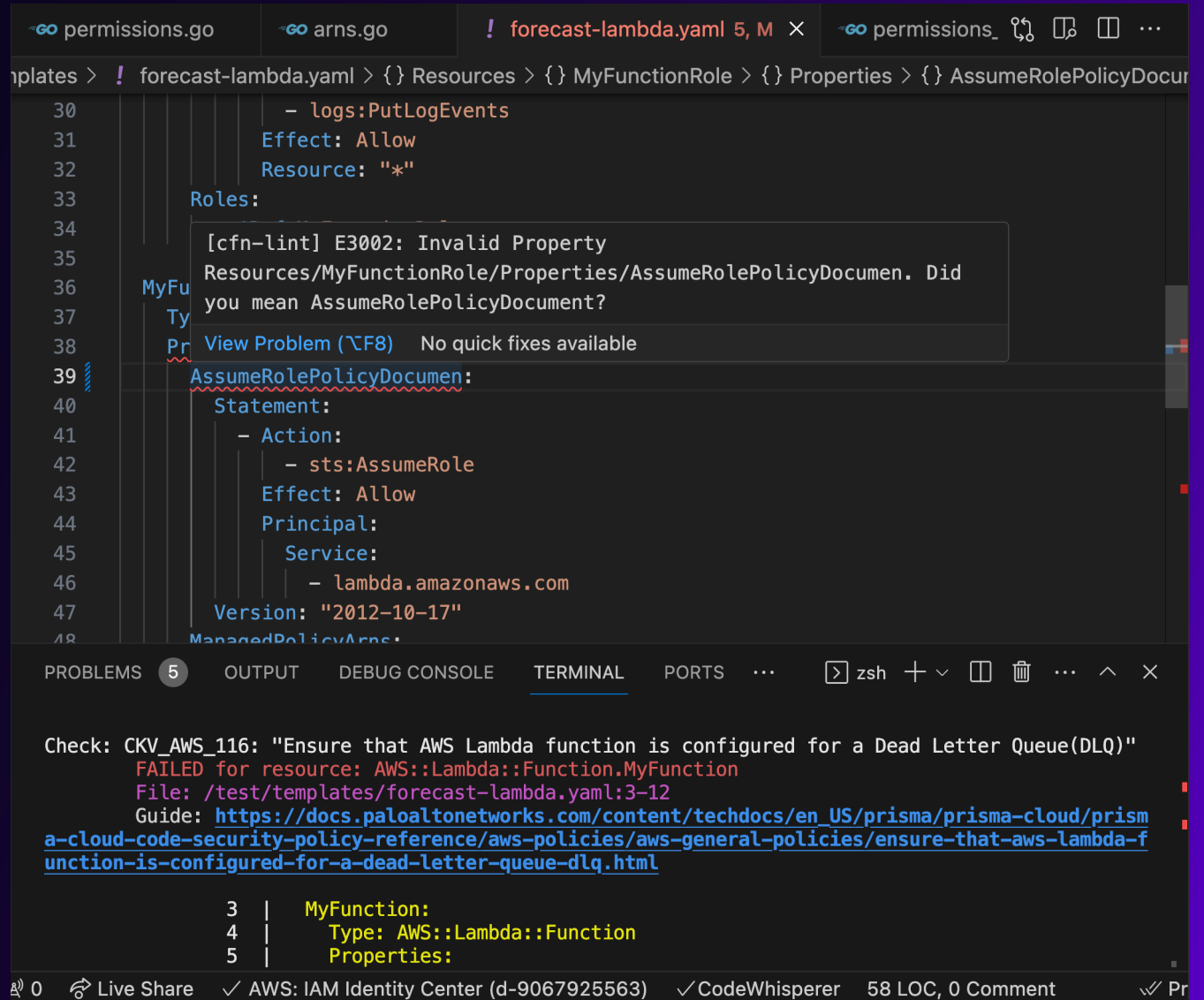
DETAILS FEATURE CONTRIBUTIONS CHANGELOG RUNTIME STATUS

vscode-cfn-lint

version v0.25.1 downloads 1.1M

Categories
Programming Languages
Linters

VS Code CloudFormation Linter uses cfn-lint to lint



```
permissions.go arns.go ! forecast-lambda.yaml 5, M x permissions_
templates > ! forecast-lambda.yaml > {} Resources > {} MyFunctionRole > {} Properties > {} AssumeRolePolicyDocu
30     - logs:PutLogEvents
31     Effect: Allow
32     Resource: "*"
33     Roles:
34       [cfn-lint] E3002: Invalid Property
35       Resources/MyFunctionRole/Properties/AssumeRolePolicyDocumen. Did
36       you mean AssumeRolePolicyDocument?
37       View Problem (⌘F8) No quick fixes available
38       AssumeRolePolicyDocumen:
39       Statement:
40         - Action:
41           - sts:AssumeRole
42           Effect: Allow
43           Principal:
44             Service:
45               - lambda.amazonaws.com
46             Version: "2012-10-17"
47       ManagedPolicyArns:
48
```

PROBLEMS 5 OUTPUT DEBUG CONSOLE TERMINAL PORTS ... zsh

Check: CKV_AWS_116: "Ensure that AWS Lambda function is configured for a Dead Letter Queue(DLQ)"
FAILED for resource: AWS::Lambda::Function.MyFunction
File: /test/templates/forecast-lambda.yaml:3-12
Guide: https://docs.paloaltonetworks.com/content/techdocs/en_US/prisma/prisma-cloud/prisma-a-cloud-code-security-policy-reference/aws-policies/aws-general-policies/ensure-that-aws-lambda-function-is-configured-for-a-dead-letter-queue-dlq.html

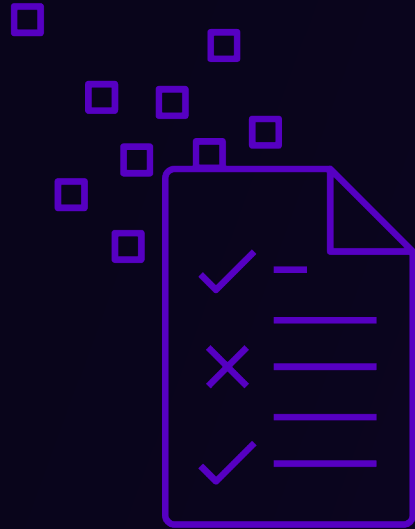
```
3 | MyFunction:
4 |   Type: AWS::Lambda::Function
5 |   Properties:
```

0 Live Share ✓ AWS: IAM Identity Center (d-9067925563) ✓ CodeWhisperer 58 LOC, 0 Comment ✓ Pr

The CloudFormation Linter integrates with your IDE and catches errors during development



Infrastructure Deployment Safety

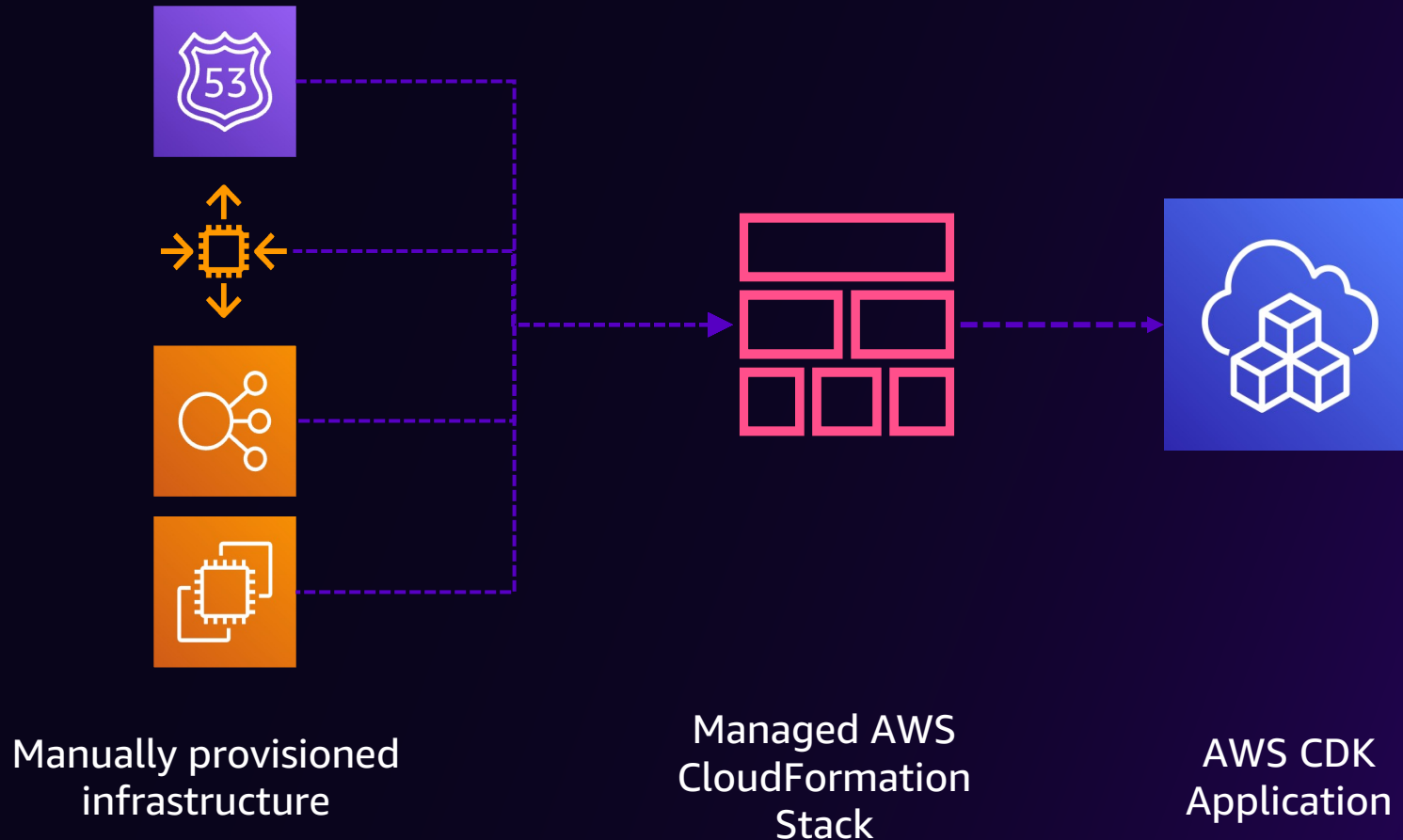


AWS CloudFormation Guard checks templates for best practices and security issues



AWS CloudFormation Hooks prevent non-compliant stack deployments

Easy onboarding to Infrastructure as Code



IaC Generator and CDK Migrate allow you to convert your existing resources into managed stacks and CDK application code with a single command

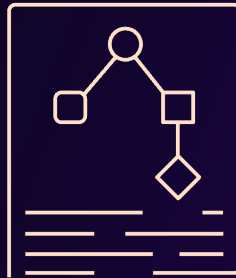
Infrastructure Deployment Automation



CloudFormation
developer
submits a PR



Template is
validated by a
GitHub action



PR is merged



NEW! CloudFormation
Git sync auto deploys
the template

Adopt automated “GitOps” CI/CD with CloudFormation Git sync

Application Composer and CodeWhisperer

Get from idea to code faster with Amazon CodeWhisperer integration

Use CodeWhisperer to get an idea to a functioning template and visualize the result in Application Composer

Have CodeWhisperer automatically configure CloudFormation resources for you directly in Application Composer

The screenshot displays the AWS Application Composer interface. On the left, a list of standard components is shown:

- ApiGatewayAccount** (Standard Component): Includes `ApiGatewayAccountLogsRole` and `ApiGatewayAccount`.
- StateMachine** (Standard Component): Includes `StateMachine`.
- ConnectedVehicleIdentity Pool** (Standard Component): Includes `ConnectedVehicleIdentityPool`, `ConnectedVehicleIdentityPoolAuthRole`, `ConnectedVehicleIdentityPoolAuthPolicy`, `ConnectedVehicleIdentityPoolUnauthRole`, `ConnectedVehicleIdentityPoolRoleAttachment`, and `ConnectedVehicleIdentityPoolUnauthPolicy`.
- TelemetryRule** (Standard Component): (Partially visible)

On the right, the configuration for the **CarlsCoolApiGatewayAccount** resource is shown. The **Resource configuration** section includes the following CloudFormation code:

```
CloudWatchRoleArn:  
Fn: :GetAtt:  
- ApiGatewayExecutionRole  
- Arn
```

Below the code, there is a **Generate** button and a status box indicating the query execution details:

- Query took 9.739 seconds to execute
- Attempts: 1
- Retry Delay: 0
- Request ID: a5ca98fd-de4b-4c16-8c66-d77379251ff2
- Conversation ID: f22f044f-af2c-4f5b-a012-2636c1411775

Chat x +
Hi, I am Amazon Q (Preview). I can answer your software development questions. Ask me to explain, debug, or optimize your code. You can enter / to see a list of quick actions.

How do I use Amazon EventBridge with GameLift FlexMatch to trigger Lambda when a potential match is created? I want CloudFormation for this.

To use Amazon EventBridge with GameLift FlexMatch to trigger a Lambda function when a potential match is created, you can create a CloudFormation template that sets this up. Here are the basic steps [1]:

1. Create an Amazon EventBridge rule that matches the "PotentialMatchCreated" event from your GameLift FlexMatch configuration [2] (<https://docs.aws.amazon.com/gamelift/latest/events.html>). The rule would target a Lambda function.
2. Create an AWS Lambda function that will be invoked when the event is matched. This function could process the match data and take actions like notifying players.
3. Use CloudFormation to define the Lambda function resource, an IAM role for it to assume, and the EventBridge rule resource linking the two.
4. Deploy the CloudFormation stack. EventBridge will then start routing "PotentialMatchCreated" events to invoke your Lambda function.

The AWS documentation has more details on setting up FlexMatch event notification and using EventBridge with CloudFormation. Let me know if you have any other questions [3]!

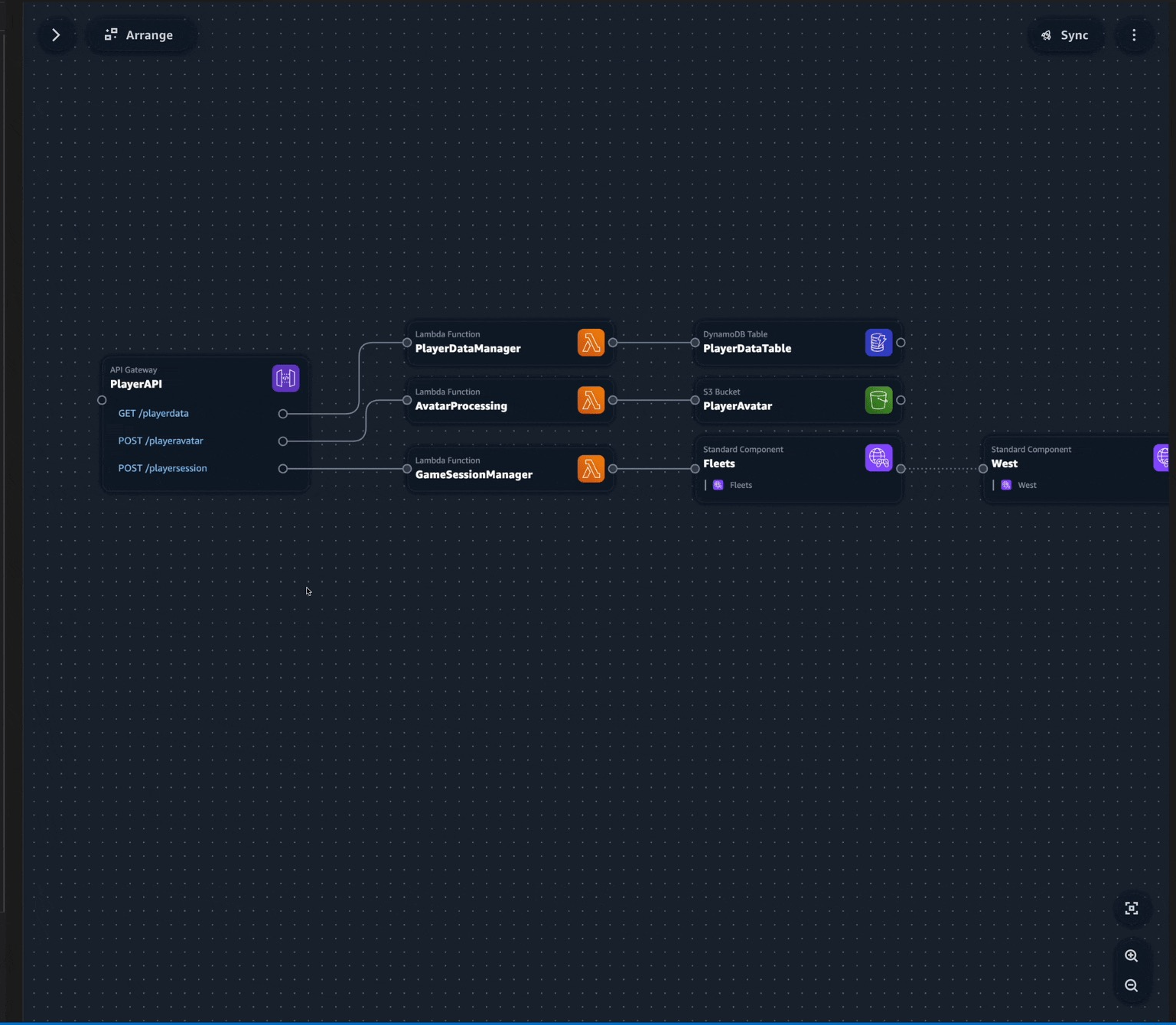
Sources
[1] Set up FlexMatch event notifications - Amazon GameLift
<https://docs.aws.amazon.com/gamelift/latest/match->
Show more

Suggested follow up questions:

- How do I define the EventBridge rule?
- What permissions does the Lambda role...
- What does the Lambda function do?

Ask a question or enter "/" for quick commands

4000/4000



```

171 GameSessionManager:
172   Type: AWS::Serverless::Function
173   Properties:
174     Handler: index.handler
175     Runtime: nodejs18.x
176     Policies:
177       - AWSLambdaBasicExecutionRole
178     Environment:
179       Variables:
180         FLEET_ID: !Ref Fleets
181     CodeUri: src/GameSessionManager
182     MemorySize: 3008
183     Timeout: 30
184     AWS: Add API Debug Configuration
185   Events:
186     PlayerAPIPOSTplayersession:
187       Type: Api
188       Properties:
189         Path: /playersession
190         Method: POST
191         RestApiId: !Ref PlayerAPI
  
```

DEMO



Frontend Web & Mobile

The background features a dark blue gradient with faint, light-colored line art illustrations of various tools including a hammer, a wrench, a screwdriver, and a saw. A grid of thin white lines is overlaid on the background, creating a technical or architectural feel.

AWS Amplify – Build full-stack web and mobile apps



AWS Amplify

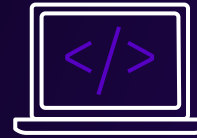
EVERYTHING YOU NEED TO BUILD FULL-STACK, CLOUD-POWERED APPS



Comprehensive set
of AWS Services



Global hosting



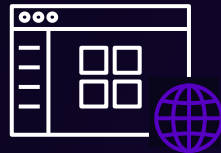
TypeScript for the
full-stack



Full-stack CI/CD



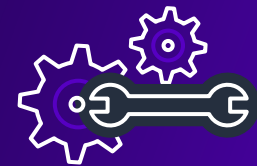
Per-developer
sandboxes



UI building



Accelerate development
Amazon CodeWhisperer



Flexibility and
control with CDK

AWS Amplify

NEW CODE-FIRST DEVELOPER EXPERIENCE (GEN 2)

PREVIEW



Develop faster

Focus on app code, not infrastructure



Ship with confidence

Deploy your frontend and backend globally on every Git push



Extend without limits

Add any AWS service with CDK

AWS Amplify

PREVIEW

NEW CODE-FIRST DEVELOPER EXPERIENCE (GEN 2)

- Write business logic in TypeScript; Amplify handles the underlying cloud resource configurations
- File-based convention: group resources by use case for transparency and predictability
- Strict typing and intellisense
- Native CDK compatibility
- Per-developer cloud sandbox environments provide isolated development spaces to build, test, and iterate
- View and manage all sandbox environments for your team in the Amplify console
- 1:1 map between Git branches and shared environments
- Code-first so your Git repository is always the source of truth
- Amplify Gen 2 layers on top of AWS CDK
- Add custom resources beyond what Amplify supports out of the box (175+ AWS Services)
- Amplify Libraries provide an interface to leverage your existing AWS services
- Export to CDK and integrate those artifacts with existing CI/CD pipelines.



Amplify Data - SQL database support

PREVIEW

NOW AVAILABLE IN CDK



Generate GraphQL APIs
for mySQL and Postgres
databases in seconds



Within VPC, outside of
VPC, outside of AWS. All
supported!



Iteration workflow when
database schemas
changes

Bring-your-own OIDC identity provider

- Developers can replace the use of Amazon Cognito User Pools
- Amplify JavaScript will still issue your AWS credentials

```
import { decodeJWT } from "@aws-amplify/core/internals/utils";
import { Amplify } from 'aws-amplify';

Amplify.configure(awsconfig, {
  Auth: {
    tokenProvider: {
      async getTokens() {
        return {
          accessToken: decodeJWT("token-string"),
          idToken: decodeJWT("token-string"),
        };
      },
    },
  },
});
```

New JavaScript v6 Libraries



Improved
TypeScript coverage
and typing support



Improved tree
shaking capabilities



Import only what you
need



Reduced bundle sizes



Support for Next.js App
Router, API routes, and
middleware

Amplify Next.js server side runtime support

- Fully encapsulated request contexts
- Runs on all runtimes for NextJS including:
 - Middleware
 - API Routes
 - App Router
 - Pages Router

```
import { runWithAmplifyServerContext } from '@aws-amplify/adaptor-nextjs';
import { fetchAuthSession } from 'aws-amplify/auth/server';
import { NextRequest, NextResponse } from 'next/server';

export async function middleware(request: NextRequest) {
  const response = NextResponse.next();
  const authenticated = await runWithAmplifyServerContext({
    nextServerContext: { request, response },
    operation: async (contextSpec) => {
      try {
        const session = await fetchAuthSession(contextSpec, {});
        return session.tokens !== undefined;
      } catch (error) {
        console.log(error);
        return false;
      }
    },
  });

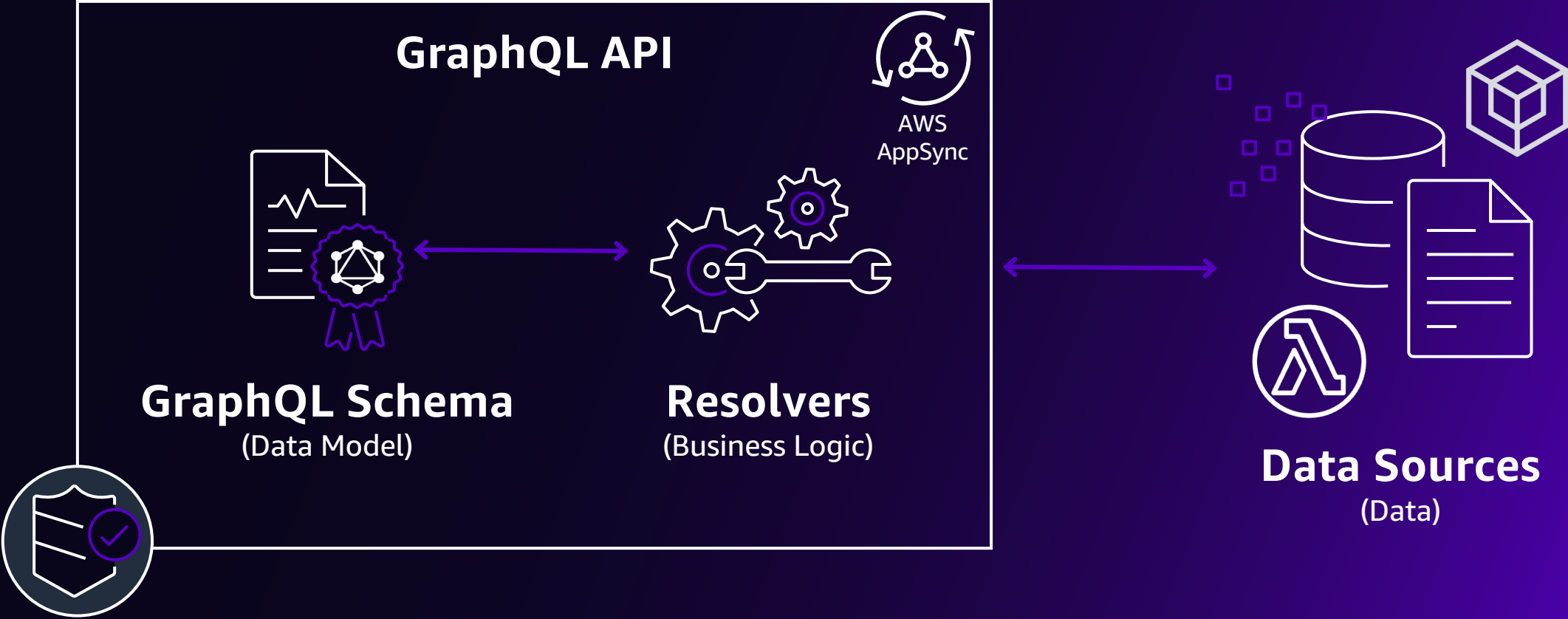
  if (authenticated) {
    return response;
  }
}
```

AppSync



What is AWS AppSync

MANAGED SERVERLESS GRAPHQL AND PUB/SUB API SERVICE

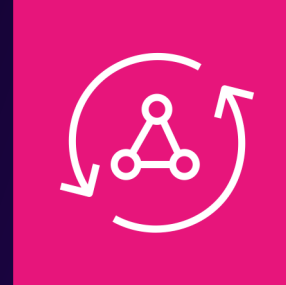


Built for databases

ENHANCED SUPPORT FOR AURORA WITH THE AMAZON RDS DATA API

RELEASED FEATURES

- **New:** Instantly build an API from your **MySQL** or **PostgreSQL** database in the AppSync console
- **New:** SQL tag template in JavaScript resolvers
- **New:** SQL helper utilities for a simpler experience
- **New:** Introspection API to discover tables and generate types



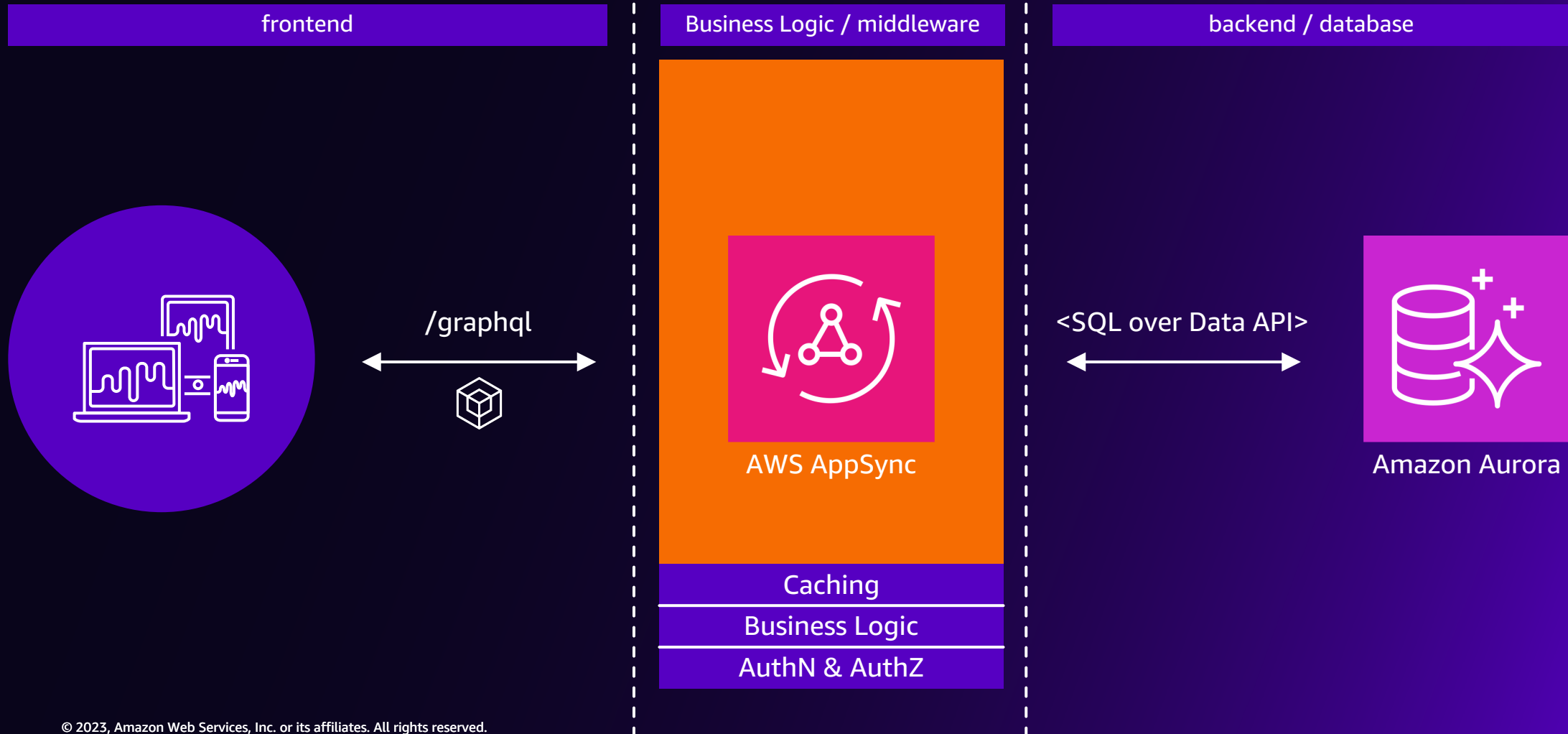
AWS AppSync



Amazon Aurora

Built for databases

CREATE A BACKEND DATABASE API FOR YOUR FRONTEND, ENRICH DATA FROM ADDITIONAL DATA SOURCES



Built for databases

SELECT DATABASE, IMPORT TABLES, REVIEW SCHEMA

Select database tables [Info](#)

Database Edit Select database

Select an Amazon Aurora cluster to use as a data source.

Aurora cluster	Data source type	Engine type	Database
	Relational database	Aurora PostgreSQL	dvdrental

Database tables (10)

Remove Add tables Preview Schema

The verified database tables were added as types to your schema in the list below. You can edit type names and remove tables from the schema now or later in the Schema page.

Q

<input type="checkbox"/>	Type name ✎	Table	Primary key	Columns
<input type="checkbox"/>	Film	film	film_id	13
<input type="checkbox"/>	Staff	staff	staff_id	11
<input type="checkbox"/>	Customer	customer	customer_id	10
<input type="checkbox"/>	Payment	payment	payment_id	6
<input type="checkbox"/>	Category	film_category	film_id, category_id	3
<input type="checkbox"/>	Rental	rental	rental_id	7

Database tables (2/9)

Remove Add tables Preview Schema

The verified database tables were added as types to your schema in the list below. You can edit type names and remove tables from the schema now or later in the Schema page.

Q

<input type="checkbox"/>	Type name ✎	Table	Primary key	Columns
<input type="checkbox"/>	Film	film	film_id	13
<input checked="" type="checkbox"/>	Staff	staff	staff_id	11
<input checked="" type="checkbox"/>	Customer	customer	customer_id	10
<input type="checkbox"/>	Payment	payment	payment_id	6
<input type="checkbox"/>	FilmCategory	film_category	film_id, category_id	3
<input type="checkbox"/>	Store	store	store_id	4
<input type="checkbox"/>	Category	category	category_id	3
<input type="checkbox"/>	Film_actor	film_actor	actor_id, film_id	3
<input type="checkbox"/>	Country	country	country_id	3

- Find compatible tables
- Pick and choose types to include, rename types
- Preview your schema
- Read-only or Read/Write API

Built for databases

SELECT DATABASE, IMPORT TABLES, REVIEW SCHEMA

Select database tables Info

Database Edit Select database

Select an Amazon Aurora cluster to use as a data source.

Aurora cluster	Data source type	Engine type	Database
	Relational database	Aurora PostgreSQL	dvdrental

Database tables (10) Remove Add tables Preview Schema

The verified database tables were added as types to your schema in the list below. You can edit type names or remove tables from the schema now or later in the Schema page.

< 1 2 > ⚙

<input type="checkbox"/>	Type name <small>✎</small>	Table	Primary key	Columns
<input type="checkbox"/>	Film	film	film_id	13
<input type="checkbox"/>	Staff	staff	staff_id	11
<input type="checkbox"/>	Customer	customer	customer_id	10
<input type="checkbox"/>	Payment	payment	payment_id	6
<input type="checkbox"/>	Category <input type="text" value="Category"/>	film_category	film_id, category_id	3
<input type="checkbox"/>	Rental	rental	rental_id	7

- Preview schema
- Columns are mapped to fields
- Date to AWSDate, Time to AWSTime
- Enums are imported as GraphQL enums

Preview schema ✕

```
1 type Film {
2   release_year: Int
3   film_id: Int!
4   description: String
5   rental_rate: Float!
6   replacement_cost: Float!
7   length: Int
8   rental_duration: Int!
9   language_id: Int!
10  fulltext: String!
11  last_update: String!
12  title: String!
13  special_features: [String!]!
```

Instant API creation for MySQL and PostgreSQL

IMMEDIATELY INTERACT WITH YOUR API. EASILY QUERY AND GET THE DATA YOU WANT

Queries

Write, validate, and test GraphQL queries.

Select the authorization provider to use for running queries on this page:

API key

Explorer >

Run ▼

```
1 query MyQuery {
2   listFilms(limit: 10, filter: {release_year: {gt: 2000, lt: 2010}, rental_rate:
3     items {
4       description
5       title
6       special_features
7       replacement_cost
8       fulltext
9       film_id
10    }
11  }
12 }
13
```

< Docs

```
{
  "data": {
    "listFilms": {
      "items": [
        {
          "description": "A Fateful Reflection of a Moose And a Husband who must Overcome a
Monkey in Nigeria",
          "title": "Chamber Italian",
          "special_features": [
            "Trailers"
          ],
          "replacement_cost": 14.99,
          "fulltext": "'chamber':1 'fate':4 'husband':11 'italian':2 'monkey':16 'moos':8
'must':13 'nigeria':18 'overcom':14 'reflect':5",
          "film_id": 133
        },
        {
          "description": "A Epic Drama of a Cat And a Explorer who must Redeem a Moose in
Australia",
          "title": "Grosse Wonderful",
          "special_features": [
            "Behind the Scenes"
          ],
          "replacement_cost": 19.99,
          "fulltext": "'australia':18 'cat':8 'drama':5 'epic':4 'explor':11 'gross':1
'moos':16 'must':13 'redeem':14 'wonder':2",
          "film_id": 384
        }
      ]
    }
  }
}
```

LOGS



Built for databases

AUTOGENERATE A GRAPHQL API FROM A DATABASE SCHEMA VIA INTROSPECTION

I need an API



AWS
Management
Console



AWS AppSync



Amazon Aurora

StartDataSourceIntrospection



<schema discovery>



<schema details>



GetDataSourceIntrospection



Create and configure API



Ready!



AppSync RDS

The screenshot shows the AWS Management Console for Amazon RDS. The main content area is titled "Databases (1)" and contains a table of database instances. The table has the following columns: DB identifier, Status, Role, Engine, Region & AZ, and Size. One instance is listed: "demo-cluster" with a status of "Available", role of "Serverless", engine of "Aurora MySQL", region of "us-east-2", and size of "16 capacity units".

DB identifier	Status	Role	Engine	Region & AZ	Size
demo-cluster	Available	Serverless	Aurora MySQL	us-east-2	16 capacity units



AppSync developer experience

JAVASCRIPT RESOLVERS SIMPLIFIES CODE & OPTIMIZES PERFORMANCE

RELEASED FEATURES

- JavaScript resolvers
- TypeScript and source maps
- Array functions and arrow functions
- Unit resolver support
- Re-use your own modules and utilities



AppSync developer experience

BEST WAY TO INTERACT WITH DYNAMODB TABLES

RELEASED FEATURES

- Dynamo DB Utility module
- Dynamo DB Projection support



AppSync developer experience

BEST WAY TO INTERACT WITH DYNAMODB TABLES

RELEASED FEATURES

- DynamoDB utility module

```
GraphQL

mutation updateTodo {
  updateTodo(input: {
    id: "<id>",
    description: "latest and greatest"}) {
    description
    id
    title
    version
  }
}
```

```
JS ddb-update.js

import * as ddb from '@aws-appsync/utils/dynamodb'

export function request(ctx) {
  const { id, ...values } = ctx.args.input;
  values.version = ddb.operations.increment(1);
  const condition = { id: { attributeExists: true } };
  return ddb.update({ key: { id }, update: values, condition });
}

export const response = (ctx) => ctx.result
```

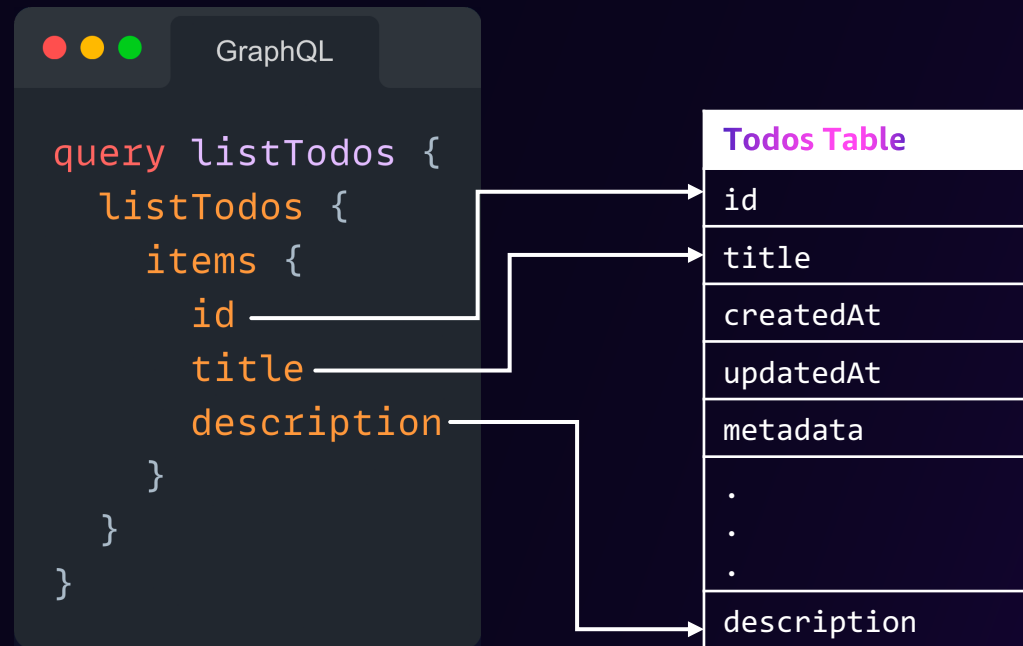
- Simple interface, direct interaction with DynamoDB
- Simple condition and filter syntax
- TypeScript support

AppSync developer experience

BEST WAY TO INTERACT WITH DYNAMODB TABLES

RELEASED FEATURES

- DynamoDB projection support

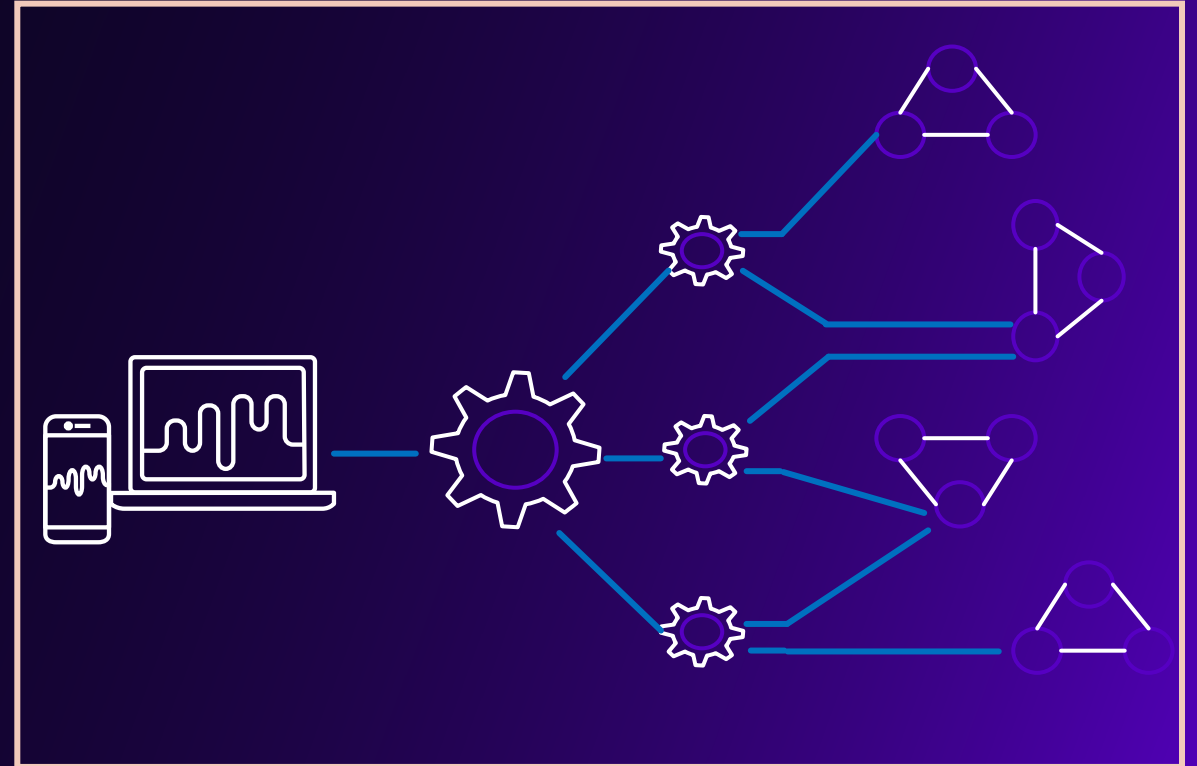


```
JS ddb-projection.js  
  
import * as ddb from '@aws-appsync/utils/dynamodb'  
  
export function request(ctx) {  
  const projection = ctx.info.selectionSetList  
    .map((field) => field.replace('/', '.'))  
  return ddb.get({  
    key: { id: ctx.args.id },  
    projection  
  })  
}  
  
export const response = (ctx) => ctx.result
```

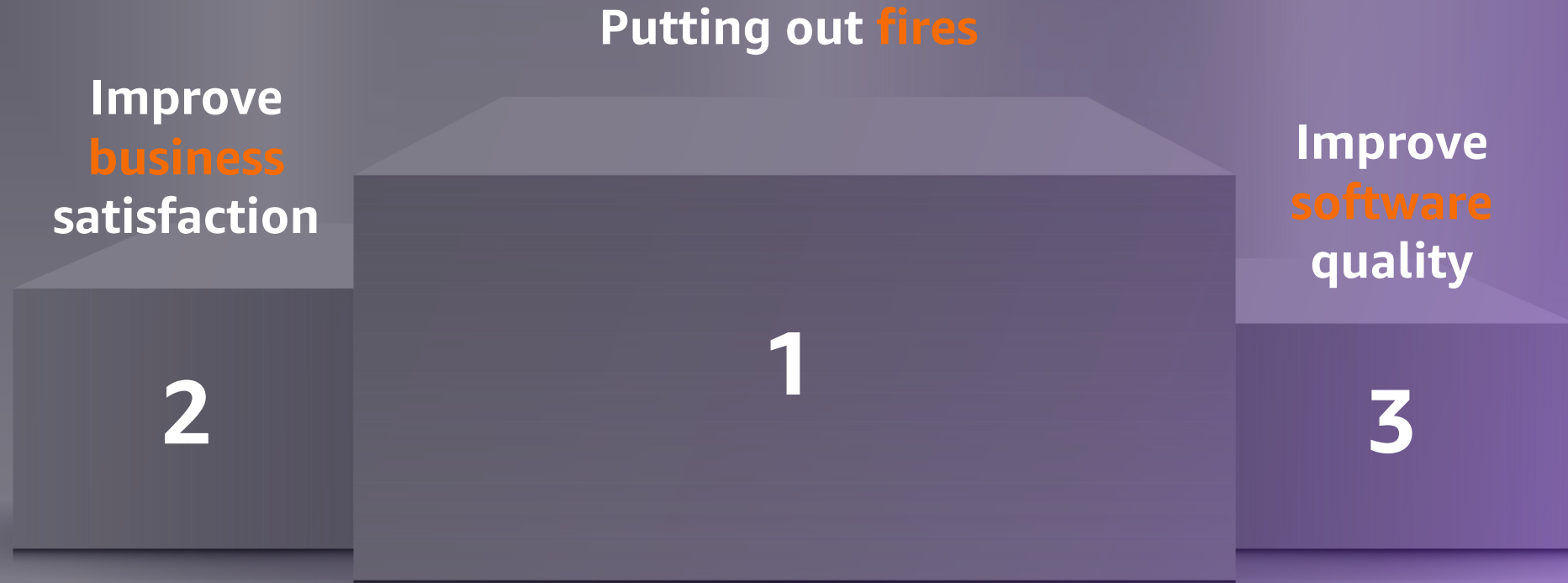
Merged APIs for cross-team collaboration

FEDERATED CROSS-TEAM API DEVELOPMENT

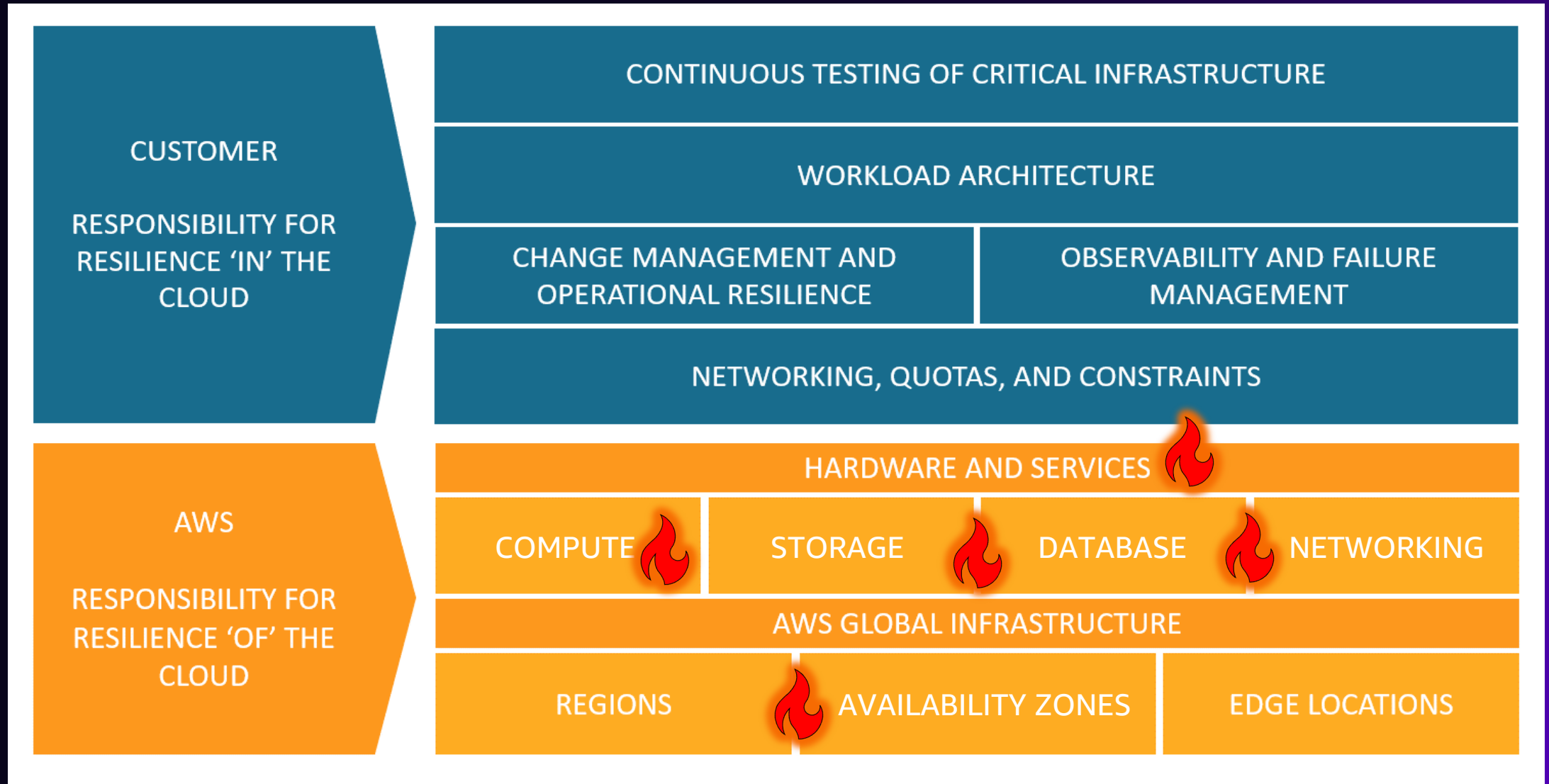
- A **merged API** combines a group of AppSync GraphQL APIs owned and managed by different teams by composing a single GraphQL schema and securely exposing data from backend APIs to clients in a single endpoint
- Enables **cross-team collaboration** while **operating independently**



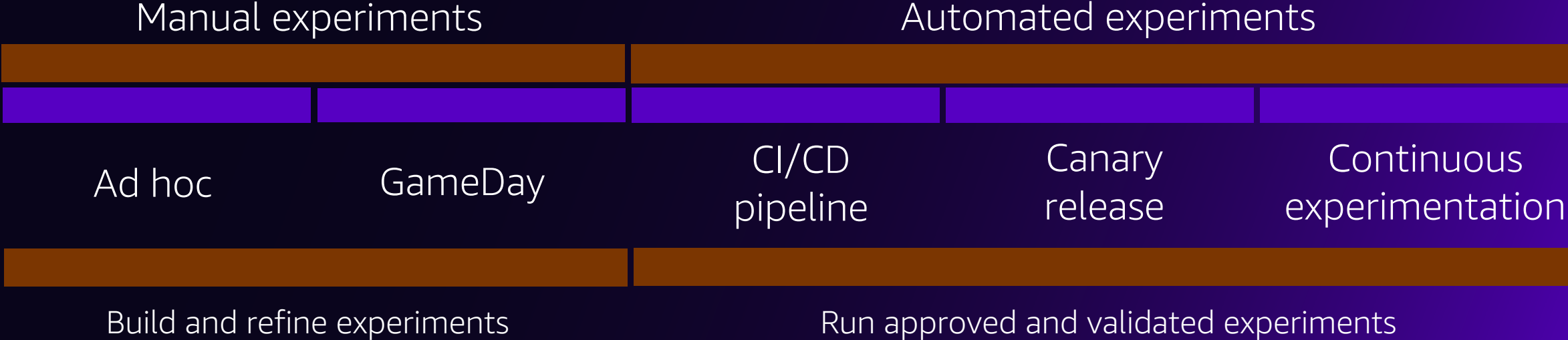
Top productivity challenges in software engineering teams*



Resilience insights through AWS Fault Injection Service



Types of resilience experimentation



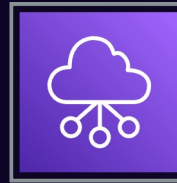
Native Targets And Actions



Management



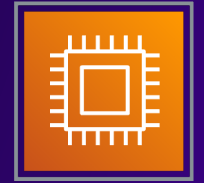
Storage



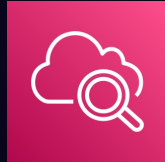
Networking



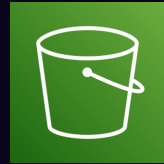
Database



Compute



Amazon
CloudWatch



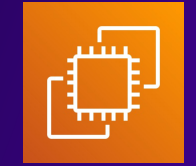
Amazon Simple Storage
Service (Amazon S3)



Amazon Virtual Private
Cloud (Amazon VPC)



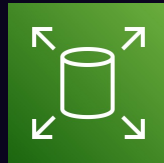
Amazon Relational Database
Service (Amazon RDS)



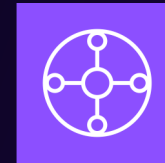
Amazon Elastic Compute
Cloud (Amazon EC2)



AWS Systems
Manager



Amazon Elastic Block
Store (Amazon EBS)



AWS
Transit
Gateway



Amazon DynamoDB



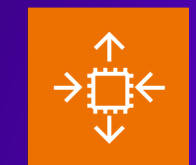
Amazon Elastic Kubernetes
Service (Amazon EKS)



Amazon ElastiCache



Amazon Elastic Container
Service (Amazon ECS)



Amazon EC2
Auto Scaling

AWS Fault Injection Service Scenario

AZ Availability: Power Interruption

Description

Affect multiple resource types in a single AZ, targeting by tags and explicit ARNs, to approximate power interruption in one AZ.

Cross-Region: Connectivity

Description

Block application network traffic from experiment Region to target Region and pause cross-Region replication

EC2 Stress: CPU

Description

Inject increasing CPU load on one or more instances, targeting based on instance tags

EC2 Stress: Disk

Description

Inject increasing disk utilization on one or more instances, targeting based on instance tags

EC2 Stress: Instance Failure

Description

Stop one or more instances for 5 min, targeting based on instance tag.

EC2 Stress: Memory

Description

Inject increasing memory load on one or more instances, targeting based on instance tags

EC2 Stress: Network Latency

Description

Inject increasing network latency on one or more instances, targeting based on instance tags

EKS Stress: CPU

Description

Inject increasing CPU load on one or more EKS pods, targeting based on cluster and application label

EKS Stress: Disk

Description

Inject increasing disk utilization on one or more EKS pods, targeting based on cluster and application label

EKS Stress: Memory

Description

Inject increasing memory load on one or more EKS pods, targeting based on cluster and application label

EKS Stress: Network Latency

Description

Inject increasing network latency on one or more EKS pods, targeting based on cluster and application label

EKS Stress: Pod Delete

Description

Delete one or more EKS pods, targeting based on cluster and application label

AWS Fault Injection Service AZ Availability

HOW A MULTI-AZ APPLICATION OPERATES WHILE EXPERIENCING THE EXPECTED SYMPTOMS OF A COMPLETE POWER INTERRUPTION IN A SINGLE AZ

- Loss of zonal compute (Amazon EC2, EKS, and ECS)
- no re-scaling of compute in the AZ
- Subnet connectivity loss
- RDS failover
- ElastiCache failover
- Unresponsive EBS volumes.

Available in all AWS Regions where FIS is available, including the AWS GovCloud (US) Regions.



AWS Fault Injection Service Cross-Region

HOW A MULTI-REGION APPLICATION OPERATES WHEN THE APPLICATION CANNOT ACCESS RESOURCES IN ANOTHER REGION

- Cross-Region VPC traffic
- VPC Peering
- Cross-Region access to AWS public endpoints
- Cross-Region access to endpoints exposed via load balancer and API gateways
- S3 cross-Region replication
- DynamoDB global tables replication.

Available in all AWS Regions where FIS is available, including the AWS GovCloud (US) Regions.



AWS Fault Injection Service Multi-Account

SET UP AND RUN FAILURE SCENARIOS ON AN APPLICATION WHICH SPANS MULTIPLE AWS ACCOUNTS USING A SINGLE FIS EXPERIMENT

- Create and run an FIS experiment from an orchestrator account
- Multi-account visibility and safety
- Inject faults into resources belonging to one or more target accounts
- Control experiment's scope by using IAM roles with fine-grained permissions and resource tags to specify each target
- Review and audit the API calls FIS makes in each account with AWS CloudTrail
- Affected resources will be notified via their AWS Health dashboards

AWS Step Functions App Composer Integration



AWS STEP FUNCTIONS WORKFLOW STUDIO IS NOW AVAILABLE IN AWS APPLICATION COMPOSER

- Unified visual infrastructure as code builder
- Seamless transition between authoring workflows and defining resources
- Create and manage all resources at any development stage
- Visualize full application in AWS Application Composer
- Zoom into the workflow details all in a single interface



AWS Step Functions Updates



BEDROCK APIS, EXTERNAL ENDPOINTS & TESTING OF TASK STATES

- Integrate 3rd party APIs and services like Stripe, GitHub and Salesforce
 - No longer need Lambda function to call endpoints
- New Test States API
 - Test your task states individually without the need to deploy or execute the state machine
- Optimized Integrations for Amazon Bedrock
 - Invoke a model and run inferences with provided input
 - Text, image and embedding models
 - Create fine tuning jobs to customise a base model

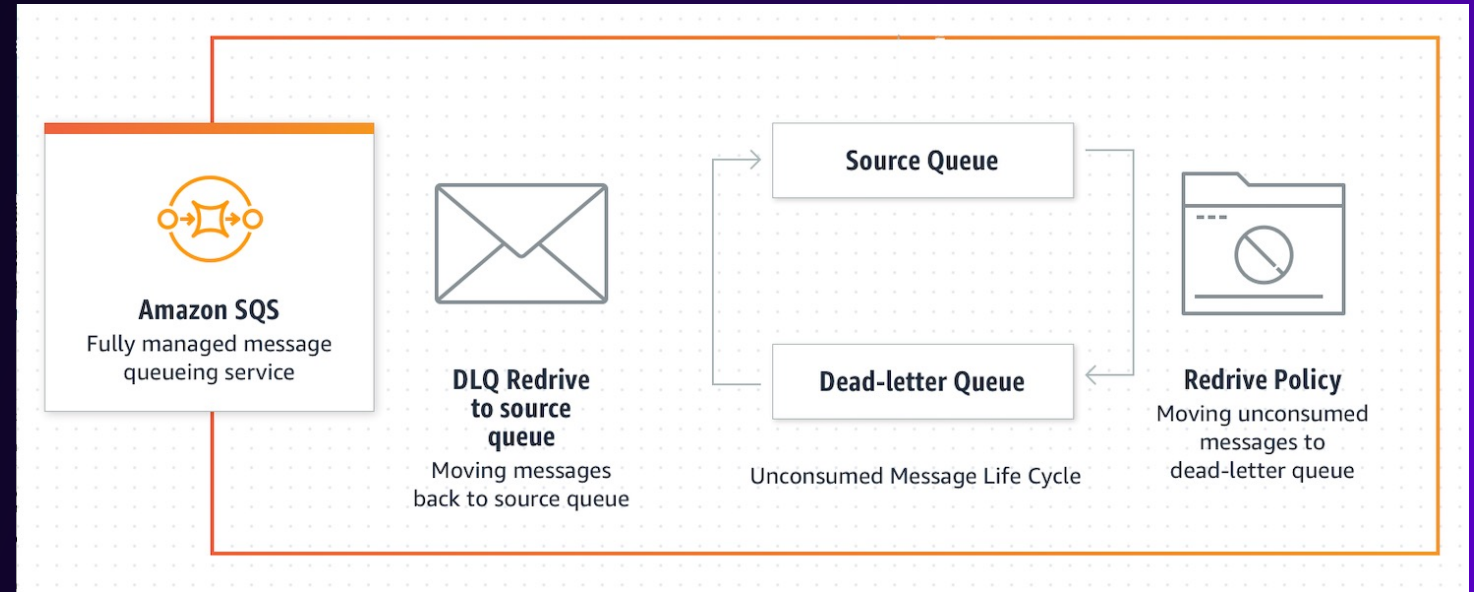




Amazon SQS FIFO Queue Updates

SQS FIRST-IN, FIRST-OUT QUEUES

- Process up to 70,000 TPS per API action
 - Available in US East (N. Virginia), US West (Oregon), and Europe (Ireland)
- Dead letter queue redrive support for Amazon SQS FIFO queues



Amazon Inspector Integration

Amazon Inspector now integrates with leading developer tools like **Jenkins** and **TeamCity** for **container image assessments**. This integration allows developers to assess their container images for software vulnerabilities within their Continuous Integration and Continuous Delivery (CI/CD) tools, pushing security earlier in the software development lifecycle.

Available in all commercial and AWS GovCloud (US) Regions where [Amazon Inspector is available](#)



Let's Party Rock

#PartyRock

#AWS

#PartyRockPlayground

#FedFinRecap

#AWSreInvent

Best party gets "re-post" by AWS team



Save the date for AWS re:Inforce

JUNE 10 - 12, 2024 | PHILADELPHIA, PA



AWS re:Inforce



DC Summit | June 26-27, 2024 | WASHINGTON, DC

Event Highlights

220+ sessions

Learn from AWS experts to accelerate your mission with technology.

Ask an AWS expert

Get your questions answered by AWS experts in person.

AWS Training & Certification

Learn more about AWS Training & Certification to advance your cloud skills.

AWS DeepRacer League

Compete among machine learning enthusiasts, no prior experience necessary.

<https://aws.amazon.com/events/summits/washington-dc/>



Thank you!



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