AWS re:Invent

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DEV205

A developer's survival kit: Tools for building beyond the AWS console

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Agenda

The builder's dilemma

Tools of the trade

Answer questions

Calls to action

Tools we will cover today

01 AWS Command Line Interface (AWS CLI)

02 AWS CloudShell

03 Integrated development environments (IDEs)

04 AWS Toolkit/AWS Cloud Development Kit (AWS CDK)

05 Amazon Q Developer

"

The significant problems we face cannot be solved at the same level of thinking we were at when we created them

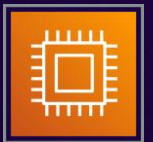# Scope of developing on AWS

- 200+ services

- 14,000+ operations

- Support for 12 programming languages (& growing!!)

- New services and service features released frequently

Analytics

Application
integration

Compute

Containers

Why recommend a "survivor's toolkit"?

- Helps establish a holistic approach to building on AWS

- Increases productivity

- Creates a baseline of tools to **simplify** your work

- Chart a growth path as a builder or developer

Storage

Migration

Internet of Things (IoT)

Front-end web and mobile

AWS Command Line Interface (AWS CLI)

AWS Command Line Interface (AWS CLI)

- Easy to install & configure
- Flexible
  - Multi-Region
  - Multi-account
  - Multi-format
- Automation & scripting
- Works within IDEs
- Scalability & reproducibility

AWS CloudShell

AWS CloudShell

- Browser-based via Management Console
- Secure (login credentials)
- Pre-configured
  - AWS CLI, Git, pip, npm
  - Amazon Linux 2023
  - 1 GB storage
- Portable; no overhead
- Available in 23 AWS Regions

AWS CloudShell

Integrated development environment

Visual Studio Code

AWS Toolkit

AWS Toolkit

Toolkit extension →

AWS Cloud Development Kit (AWS CDK)

AWS CDK

```csharp
using Amazon.CDK;
using Amazon.CDK.AWS.S3;
using Constructs;

namespace DemoCdk
{
    public class DemoStack : Stack
    {
        public DemoStack(Construct parent, string id, IStackProps props):
                base(parent, id, props)
        {
            new Bucket(this,
                        "MyFirstBucket",
                        new BucketProps { Versioned = true }
            );
        }
    }
}
```

Amazon Q Developer

Amazon Q Developer – re:Invent 2024 Sessions

Breakouts

- DEV201 Build Amazon Q apps to scale and drive community engagement
- DEV202 Boosting productivity with Amazon Q Developer agents
- DEV310 Implementing Amazon Q Developer: Lessons from the field
- DEV321 Supercharge your DevOps practices with generative AI

Chalk Talks

- DEV323 OWASP Top 10 for LLMs: A developer's guide to securing generative AI

Additional resources

https://bit.ly/dev205

Thank you!

Please complete the session survey in the mobile app

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