iamneo

Amazon Lambda

Serverless Computing Made Easy with AWS Lambda

AWS Lambda

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What is Serverless Computing?

Cloud-based

Serverless computing enables developers to focus on writing code for specific tasks, rather than managing servers or infrastructure.

Cost-effective

Because serverless computing only requires payment for actual usage, it's often more cost-effective than traditional hosting or infrastructure.
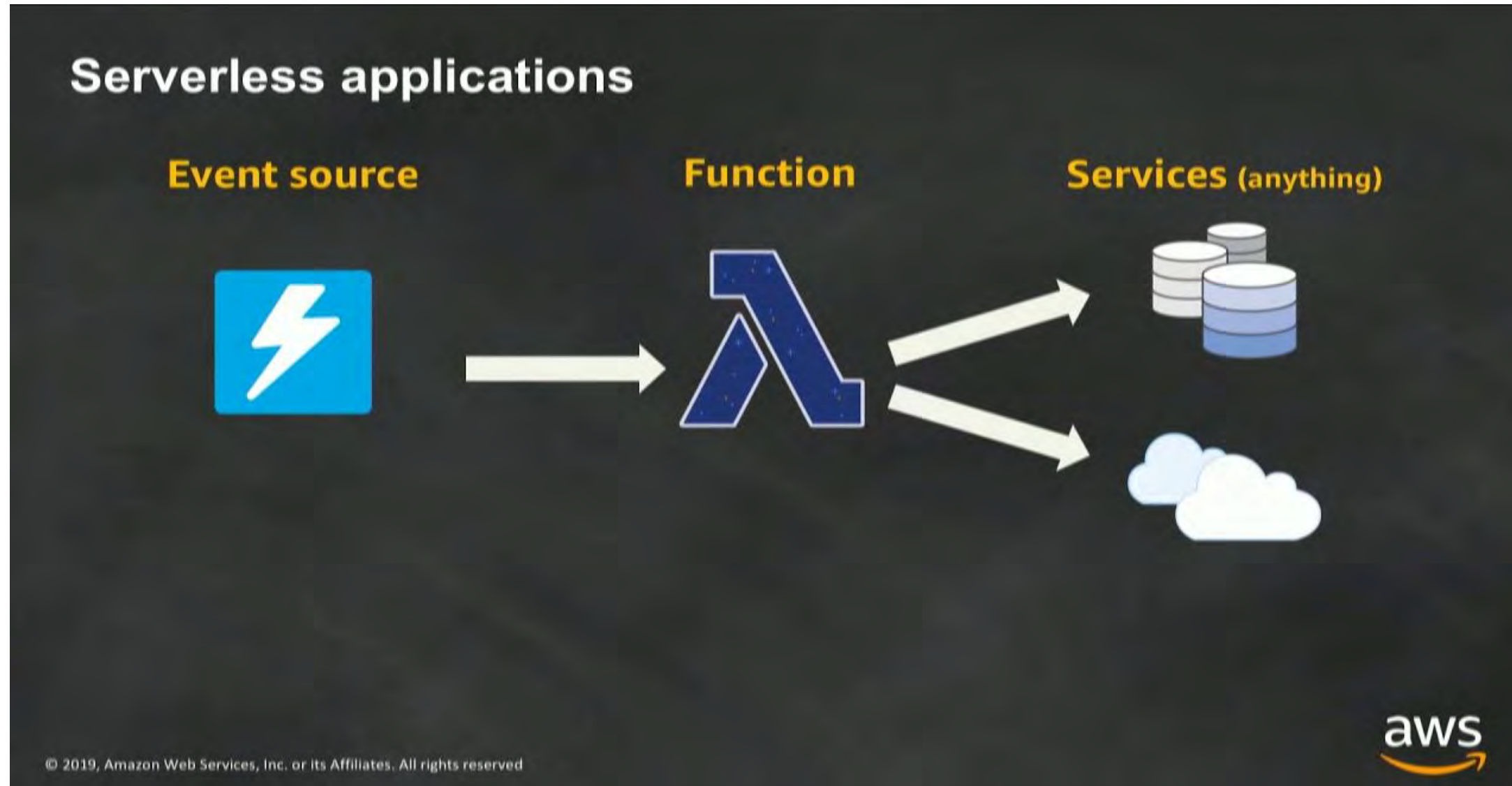
Event-driven

With serverless computing, code is executed only in response to events, such as data changes or user actions, making it highly efficient and scalable.

Why AWS Lambda?

- **Flexible**

- **Scalable**

- **Cost-effective**

- **Integrative**

How AWS Works

Serverless applications

Event source → Function → Services (anything)

aws

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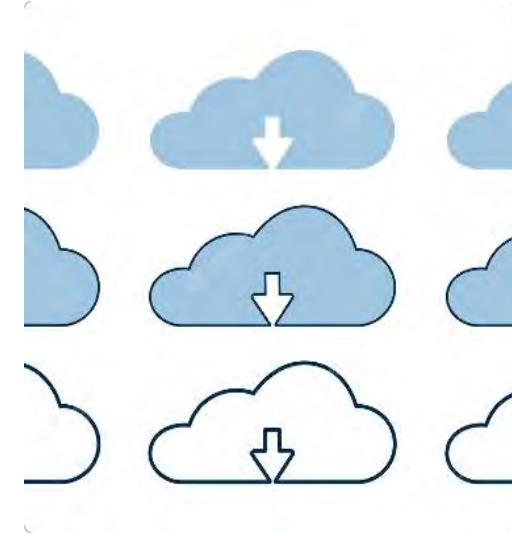
How AWS Works

Amazon Web Services

AWS is a cloud computing platform that provides a wide range of scalable services, including AWS Lambda, to businesses and individuals.
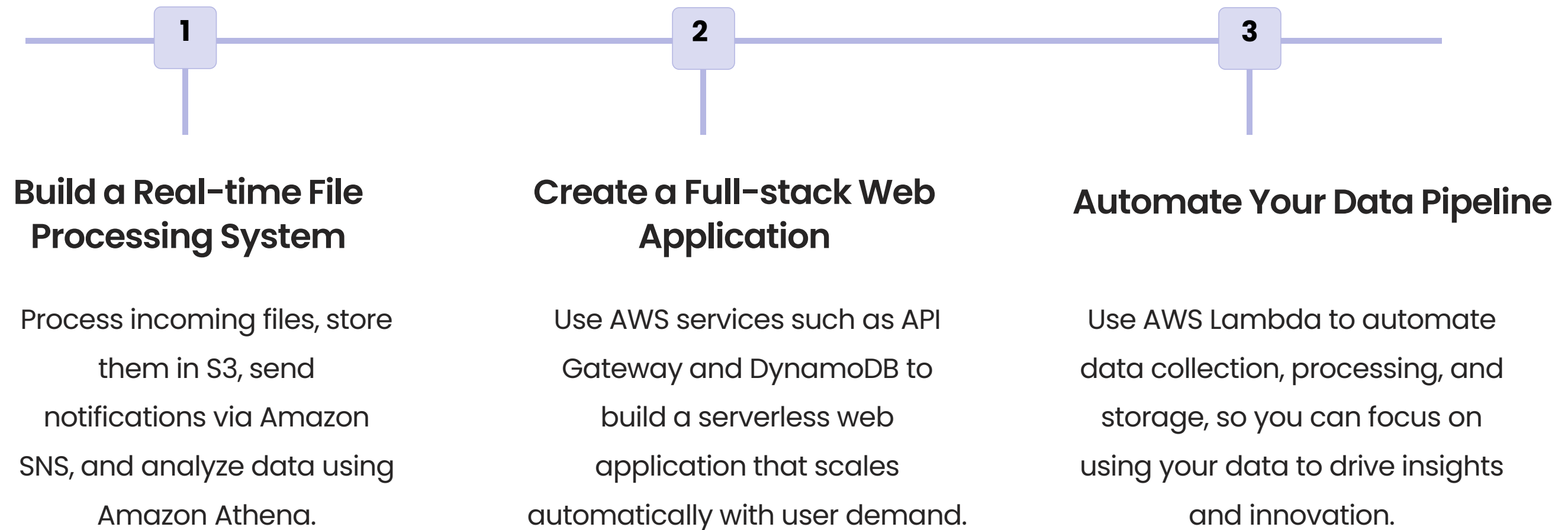
Code and Triggers

Developers create code in the appropriate language, set up triggers that launch the code, and rely on AWS to execute the code securely and efficiently.

Leveraging the Cloud

With AWS Lambda, developers can leverage the power of the cloud, without worrying about server maintenance and setup.

Use Cases for AWS Lambda

1

2

3

Build a Real-time File Processing System

Process incoming files, store them in S3, send notifications via Amazon SNS, and analyze data using Amazon Athena.

Create a Full-stack Web Application

Use AWS services such as API Gateway and DynamoDB to build a serverless web application that scales automatically with user demand.

Automate Your Data Pipeline

Use AWS Lambda to automate data collection, processing, and storage, so you can focus on using your data to drive insights and innovation.

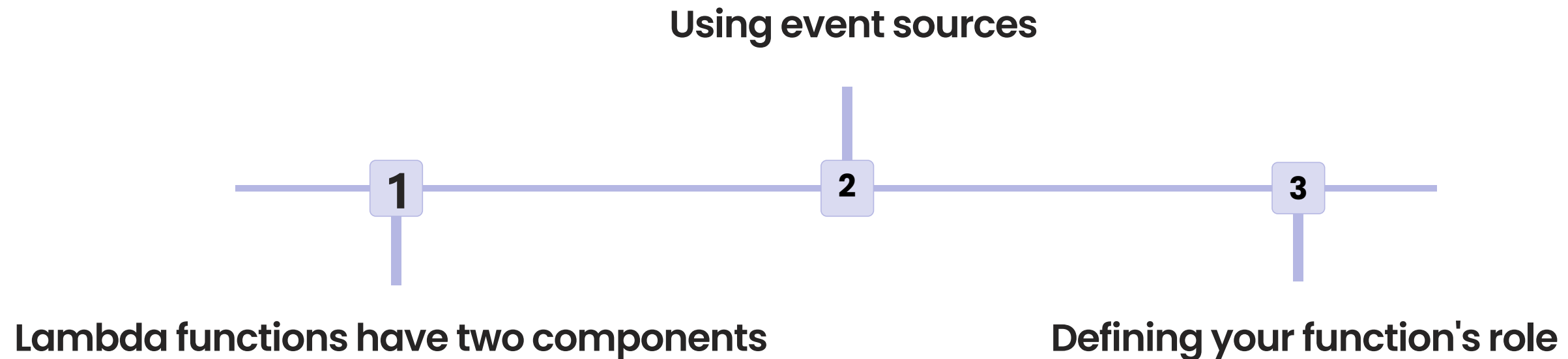# Building Your First Lambda Function

Step 1: Choose a programming language

Step 2: Define a handler function

Step 3: Configure triggers

Step 4: Testing and debugging

Structuring Your Lambda Functions

Using event sources

1

2

3

Lambda functions have two components

Defining your function's role

Triggering and Invoking Lambda Functions

Manual Invocation

You can invoke a Lambda function manually using the AWS console.
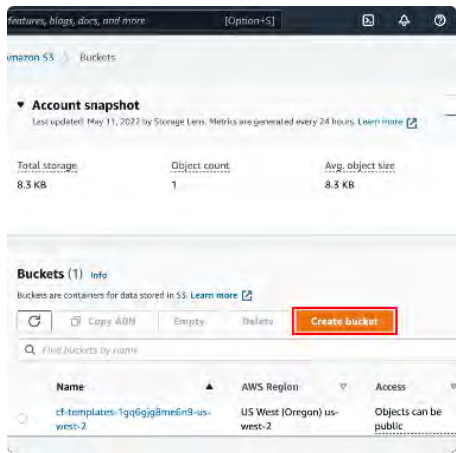
API Gateway Trigger

Create an API Gateway and configure it to trigger your Lambda function based on HTTP requests.

Event Trigger

Your function can be triggered based on events in other AWS resources, such as S3 object creation, Kinesis Data Streams, and DynamoDB.
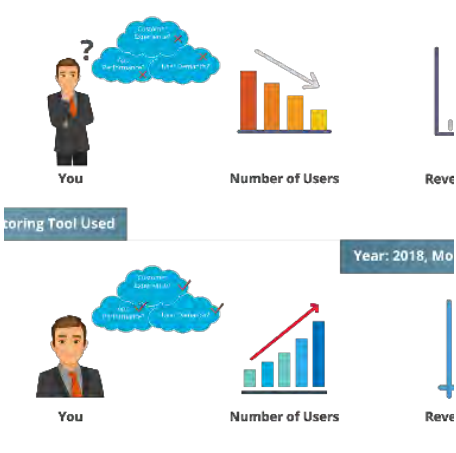
Integrating AWS Lambda Functions with Other Services

Integrating with Amazon S3

Integrating with Amazon Alexa

Managing and Monitoring Your Lambda Functions

Managing and Monitoring Lambda Functions

Updating function code

1

2

3

Viewing function errors

Enabling X-Ray tracing