

# Cloud Computing Case Study: Amazon Web Services

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# What is PaaS?

## Defintion

Platform as a Service (PaaS) is a cloud computing model that provides a platform allowing customers to develop, run, and manage applications without the complexity of building and maintaining the underlying infrastructure.

## Examples

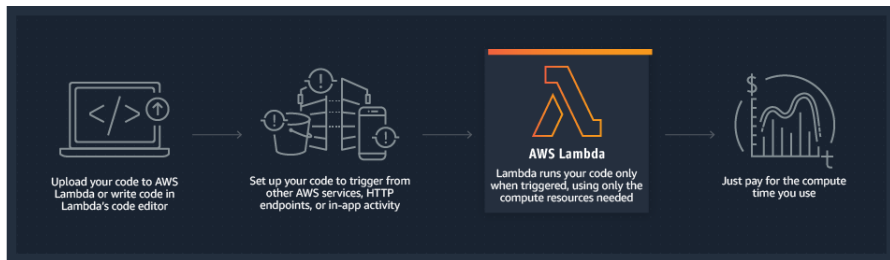
AWS Services that belongs to PaaS

- AWS Lambda
- Amazon Polly

# AWS Lambda

## Definition

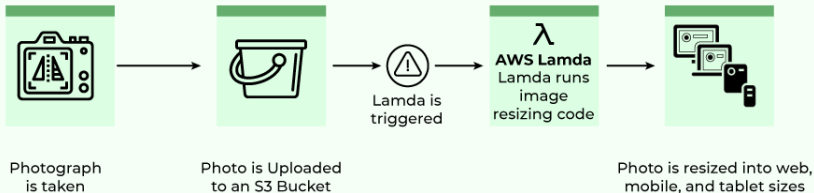
AWS Lambda is a serverless computing service that lets the developers run their code in the standard runtime environment of Lambda without having to worry about server handling with zero supervision.



# How AWS Lambda Works

## Working Principle

User uploads the code to AWS Lambda. Whenever the Lambda function is triggered, the code will run and use the computing resources then only.



## Lambda Functions

- AWS lambda are server-less compute functions are fully managed by the AWS where developers can run there code without worrying about servers.
- AWS lambda functions will allow you to run the code with out provisioning or managing servers.



# Where to use AWS Lambda

- File Processing: AWS Lambda can be triggered by using S3 Service. Whenever files are added to S3 service Lambda functions will start processing the data.
- Web Applications: AWS Lambda can be combined with web applications which will scale up and down based on the incoming traffic.
- Stream Processing: Lambda functions can be used to process real-time data streaming data.

# Why use AWS Lambda

- Serverless Execution
- Pay-per-use-pricing
- Supports different programming languages
- Auto-Scaling and High Availability

# Amazon Polly

## Definition

Amazon Polly is a cloud service that converts text into lifelike speech by using advanced deep learning technologies.



# How Amazon Polly Works

## Working Principle

User provides text input and it processes the text using NTTS or TTS technique and returns the spoken version of the text in desired voice, language or format.



# Where to use Amazon Polly

- Voice-Enabled Applications
- Accessibility Tools
- Media and Content Creation

# Why use AWS Elastic Beanstalk

- Natural Sounding Voices
- Multiple Languages and Voices
- Real-Time Speech

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