Deploying a Text Notification Website with a Serverless HTTP API

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Outline

Serverless Plugins

- Overview
- 'serverless-finch'

Serverless APIs

- Component overview
- API Gateway
- HTTP API configuration

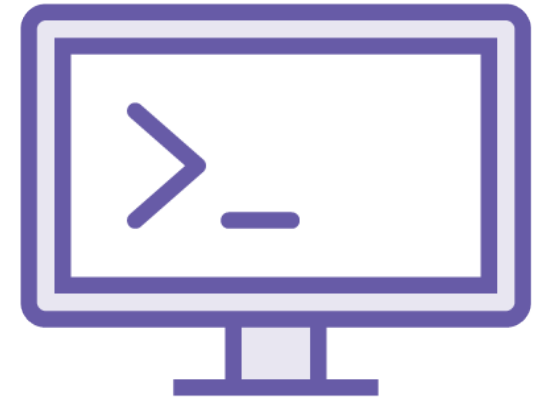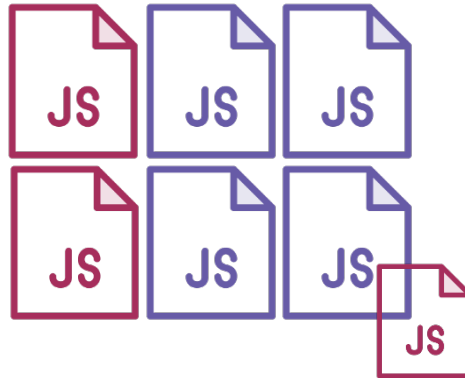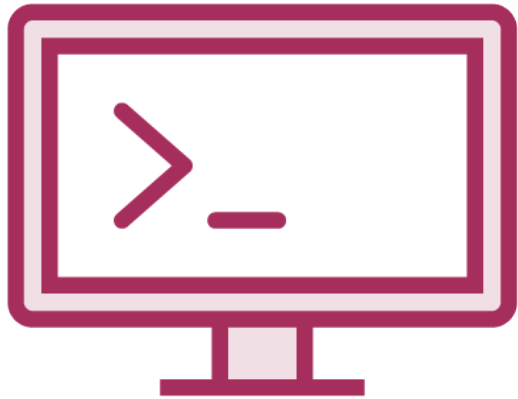**Project – Text Notification Website**

- Google Recaptcha & Twilio setup
- Service scaffolding
- Functions
- API endpoints
- Deployment

Serverless Plugins

Serverless Plugin Overview

```
npm install --save-dev custom-serverless-plugin

# serverless.yml
plugins:
    - custom-serverless-plugin

custom:
    custom-config-category:
        configBucket: configBucketName
```
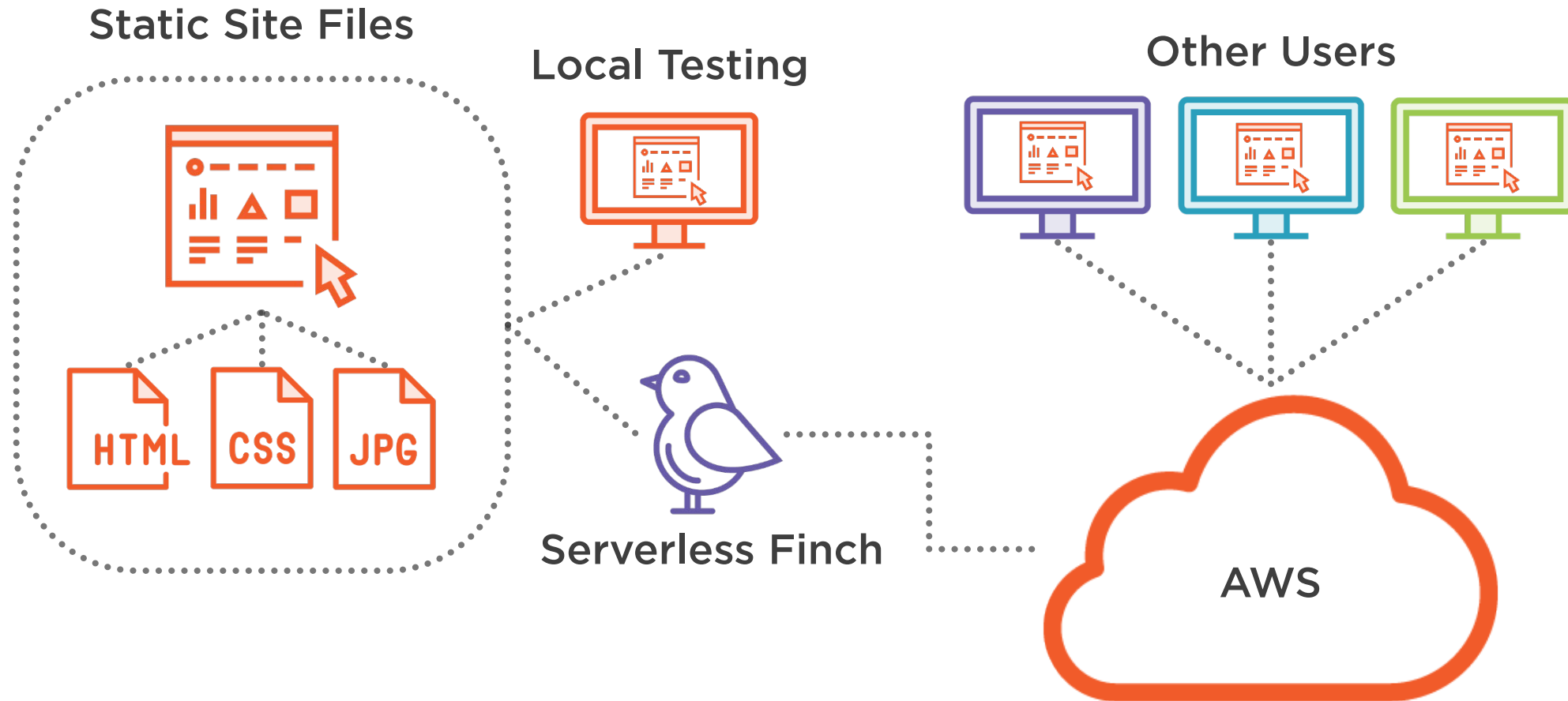
Plugin Installation & Configuration

Serverless Plugins use npm installation

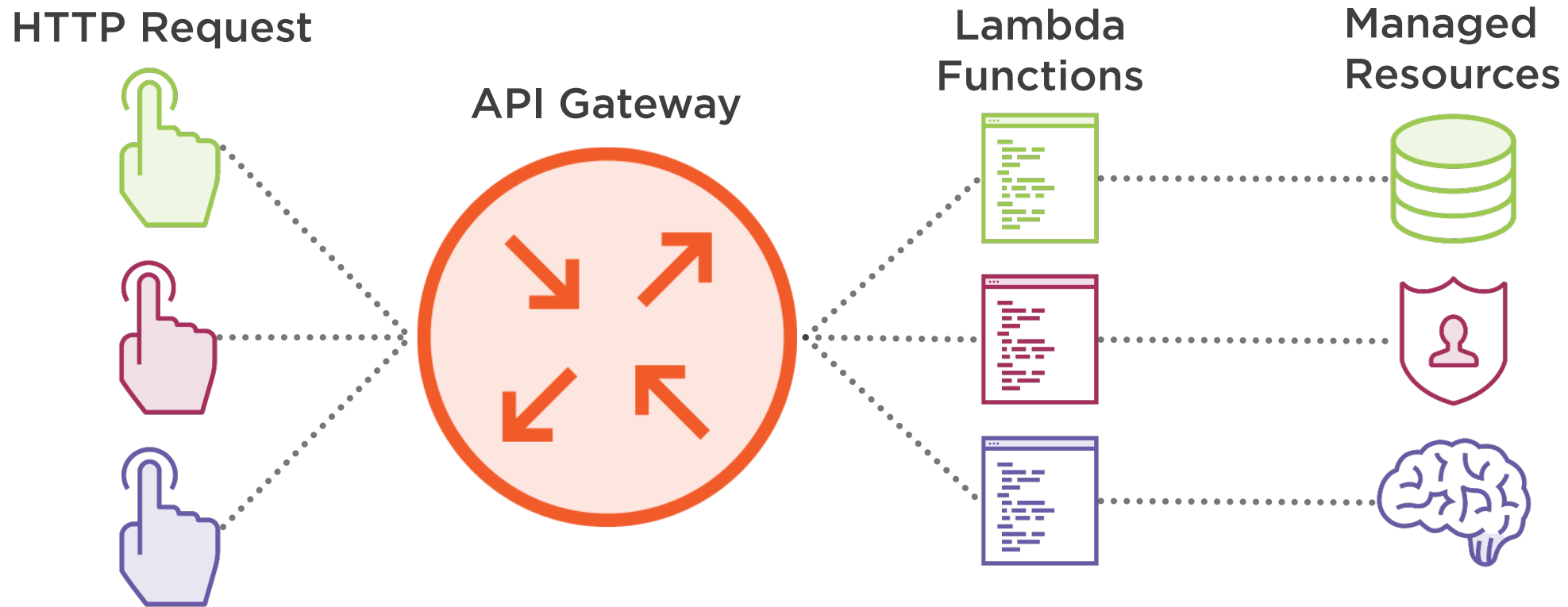**Configuration is usually required in serverless.yml**

Serverless Finch

Static Site Files

Local Testing

Other Users

HTML   CSS   JPG

Serverless Finch

AWS

Serverless APIs

Serverless APIs - Component Overview

What is API Gateway?

API Gateway

"Amazon API Gateway is an AWS service that enables developers to create, publish, maintain, monitor, and secure APIs at any scale."
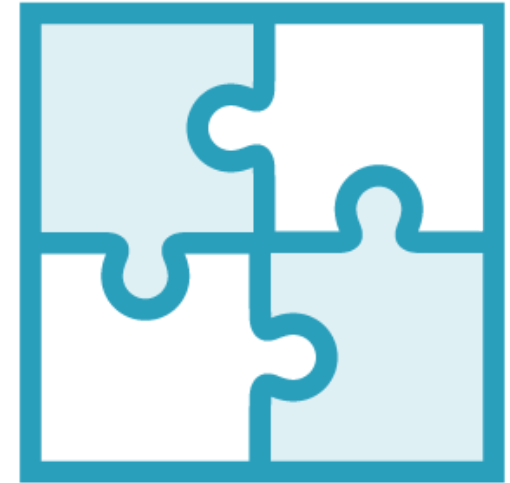
- docs.aws.amazon.com

AWS API Gateway Features
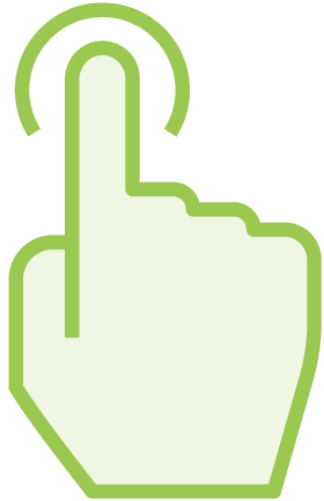
REST APIs for Web & Mobile

Scalable & Secure

Integrates with AWS Lambda

API Gateway Pricing

$3.50 – $4.25/MM
API Requests
(1M free requests)

$0.09 - $0.14/GB
Transfer

$0.02 - $0.04/GB/Hr
Caching

Serverless API Configuration – Endpoints

```yaml
functions:
  create:
    handler: pets/create.create
    events:
      - http:
          path: pets
          method: post
          cors: true
```

Serverless API Configuration – Endpoints

```yaml
functions:
  get:
    handler: pets/get.get
    events:
      - http:
          path: pets/{id}
          method: get
          cors: true
```
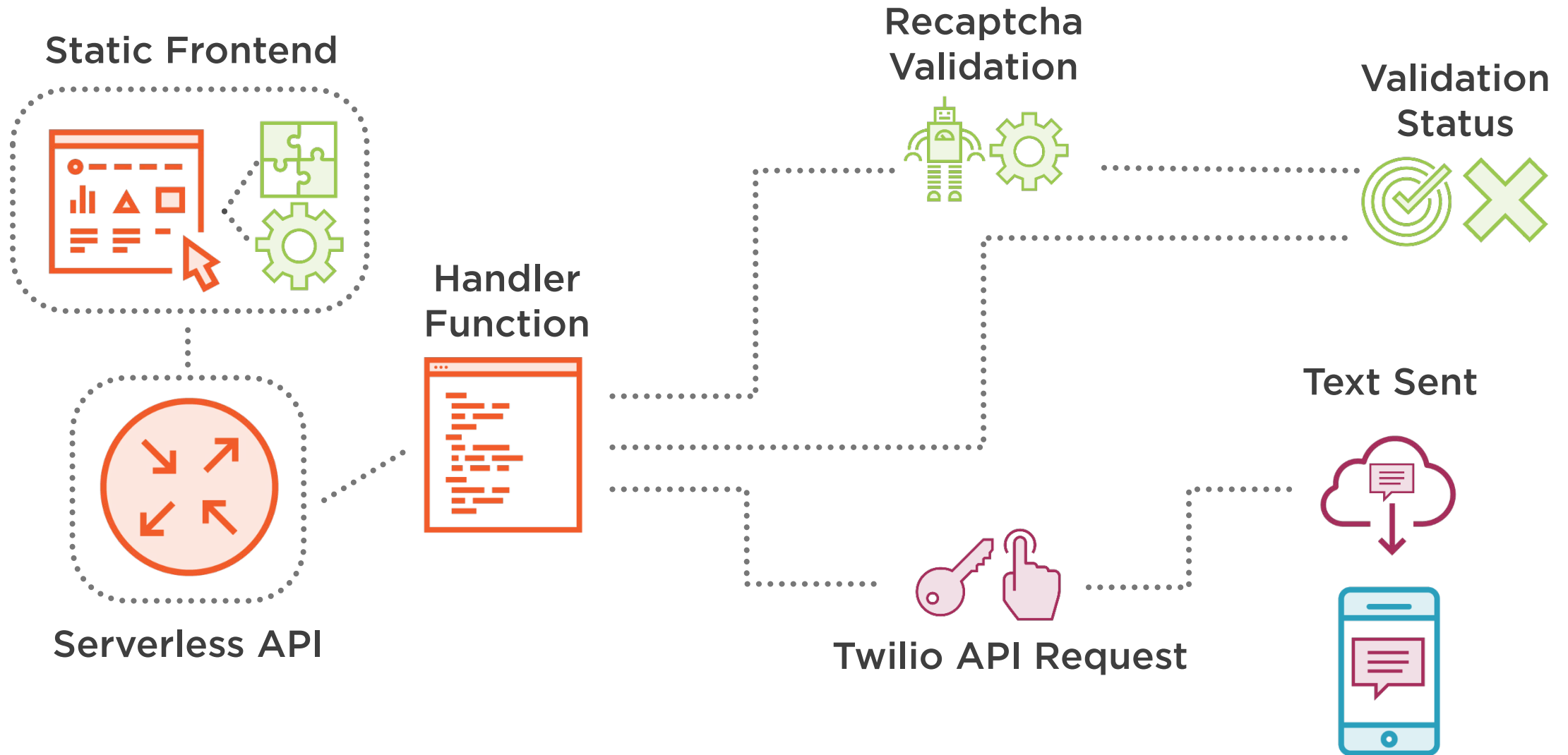
Serverless Environment Variables

```yaml
service: serverless-node-rest-api

provider:
  name: aws
  runtime: nodejs6.10
  environment:
    ACCESS_KEY_VALUE: 123-access-key-value-456-zpq
```
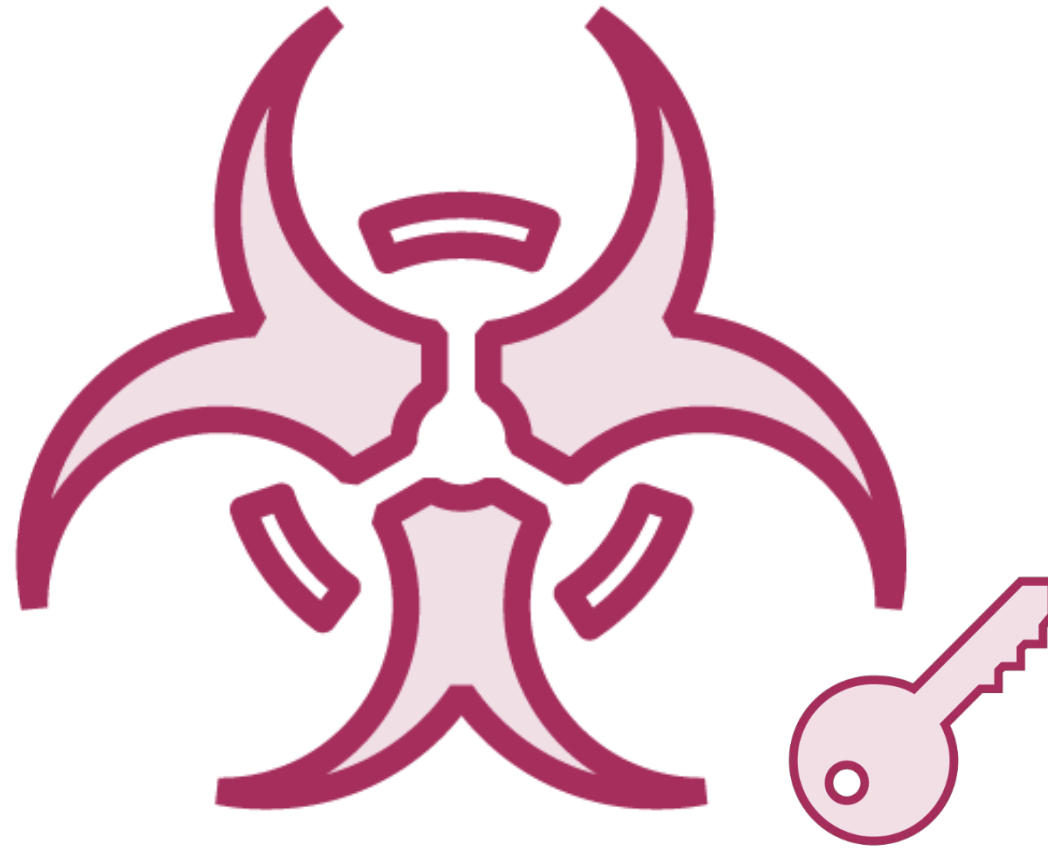
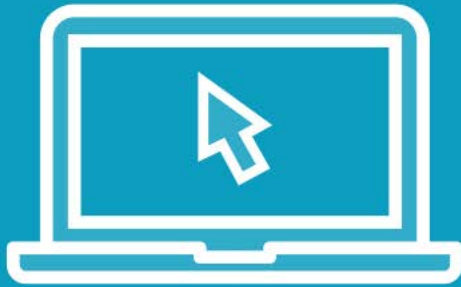# Project Review – Text Notification Website

Text Notification Website

Static Frontend

Recaptcha Validation

Validation Status

Handler Function

Text Sent

Serverless API

Twilio API Request

Warning: API Secrets & Source Control

Demo

Deploying a Full-stack Serverless App
- Gathering dependencies
  - Google Recaptcha setup
  - Twilio setup
  - Service scaffolding
- Functions
- API endpoints
- Deployment

Review

Serverless concepts

- Plugins
- API development & configuration
- Deployment options

Serverless Skills

- Implemented Serverless APIs
- Deployed a full-stack Serverless App

Coming Up

- Serverless CRUD - APIs and databases