

# Mocking and Testing Serverless APIs with AWS Amplify

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# Agenda

- AWS Amplify Overview
- Amplify CLI Overview
- Amplify Client Overview
- Mocking & testing a Lambda Function
- Mocking & testing Storage
- Mocking & testing a GraphQL API
- Adding & testing authorization rules in a GraphQL API
- Deleting the Project

# AWS Amplify



- ✓ CLI
- ✓ Client Libraries (Native & JS Support)
- ✓ Console – Continuous Deployment & Hosting
- ✓ Prebuilt UI Components
- ✓ Toolchain
- ✓ JS Framework Support

# AWS Amplify JS Client SDK

- Opinionated
- Declarative
- Client focused
- High-level abstractions
- Best practices built-in
- Built with Amplify CLI in mind



# AWS Amplify

## CLI

- Create, update & delete cloud services.
- Manage multiple environments.
- GraphQL Transform
- GraphQL & Lambda Codegen

# Amplify CLI

## Categories

Authentication

Analytics

Interactions (chat bots)

API (REST)

API (GraphQL)

Serverless Functions

Storage

Predictions

XR

Push Notifications

# Amplify CLI

```
$ amplify add auth
```

```
$ amplify push
```

```
$ amplify update auth
```

```
$ amplify remove auth
```

```
$ amplify delete
```

# CLI - Mocking

```
$ amplify mock
```

```
$ amplify mock api
```

```
$ amplify mock storage
```

```
$ amplify mock function <functionname>
```



# Amplify CLI

## Mocking

- Creates local http server
- Creates local SQL Lite tables (API, DynamoDB)
- Creates local folder for S3 storage (images, files, etc..)
- Updates aws-exports.js file with local references

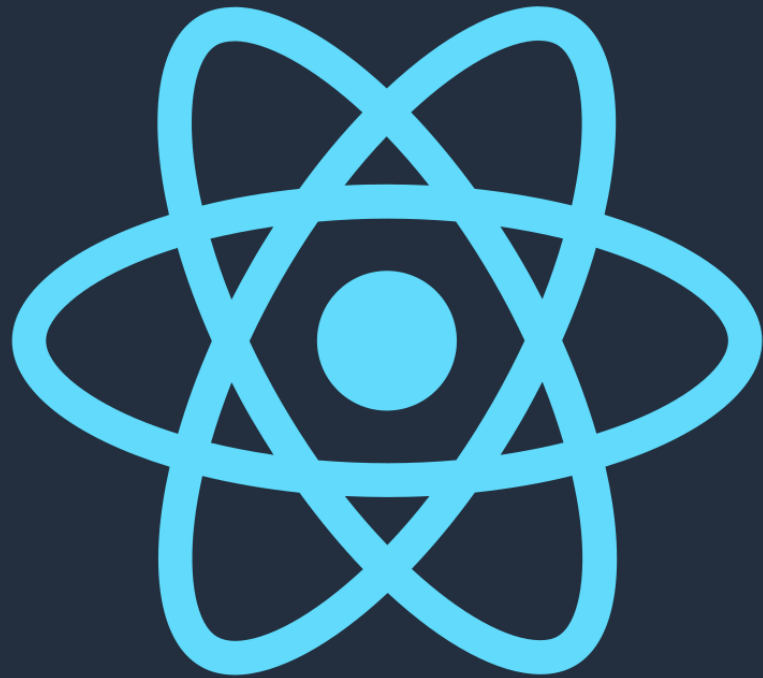
# Client

- Connect to & interact with cloud services from web & mobile applications.
- Preconfigured components for popular front-end libraries.

# AWS Amplify – Native Support



# AWS Amplify – JS Framework Support



# AWS Amplify Client (JavaScript)

```
$ npm install aws-amplify
```

# AWS Amplify Client

```
$ npm install aws-amplify
```

```
import {  
  Auth, API, Storage, Analytics, XR  
} from 'aws-amplify'
```

# AWS Amplify Client

```
import {  
    API  
} from 'aws-amplify'  
  
API.get('apiname', 'path')
```

# AWS Amplify Client

```
import {  
    Storage  
} from 'aws-amplify'  
  
Storage.put('key', file)  
  
Storage.get('key')
```



# AWS Amplify framework-specific components

```
$ npm install aws-amplify-react
```

```
import { withAuthenticator } from 'aws-amplify-react'
```

```
export default withAuthenticator(App)
```

# DEMO

# Resources

## AWS Amplify Docs

<https://aws-amplify.github.io/>

## AWS Amplify Mocking Documentation

<https://aws-amplify.github.io/docs/cli-toolchain/usage#mocking-and-testing>

## Amplify Community

<https://amplify.aws/community/>

# Thank you!

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