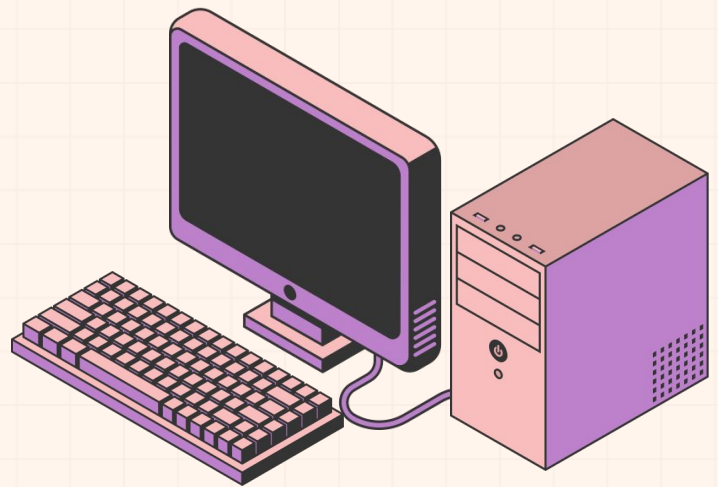


AWS AMPLIFY

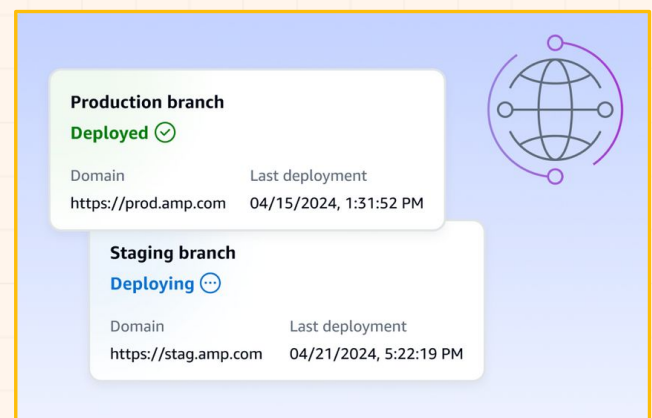
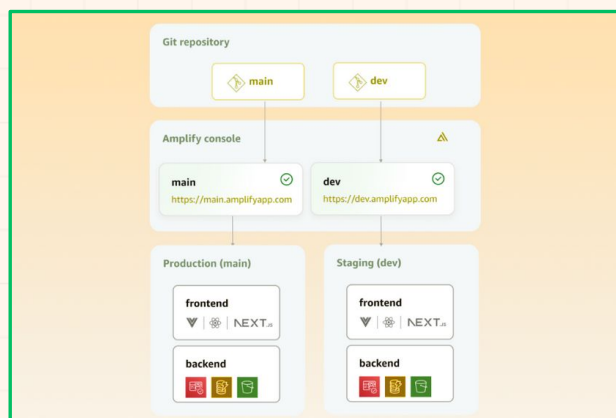
CLOUD TECHNOLOGY



Sahil Bhatt
Pengcheng cao
Han Zhang

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AWS AMPLIFY: SIMPLIFYING FULL-STACK CLOUD DEVELOPMENT

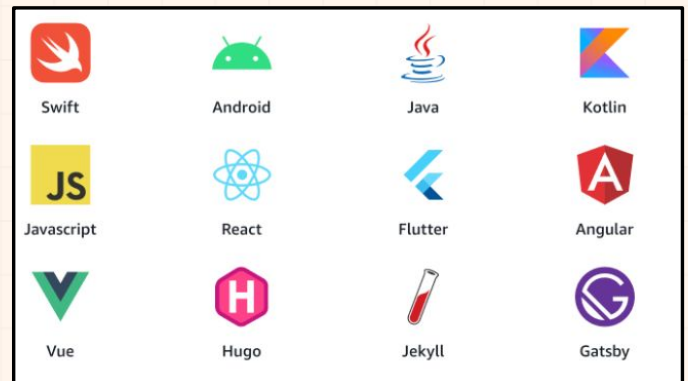


**AWS AMPLIFY IS AMAZON'S FULL-STACK CLOUD
PLATFORM THAT LETS DEVELOPERS BUILD, DEPLOY,
AND HOST WEB/MOBILE APPS QUICKLY**

Page 02

WHAT PROBLEM DOES AMPLIFY SOLVE?

Backend complexity	Automating the provisioning of services such as user authentication (with Cognito), data storage (using S3 and DynamoDB), and APIs (with AppSync).
Scalability	Automatically scaling as traffic grows.
Development speed	Pre-built libraries, UI components, and CLI.
Integration challenges	Providing framework that integrates client-side libraries with backend services.
Hosting and deployment	Automating the build and deployment process, from code check-in to a production environment.



source(<https://aws.amazon.com/amplify/?nc=sn&loc=1>)



KEY FEATURES



Authentication

Managed user sign-up/login
Social login (Google, Apple, Amazon, Facebook)



APIs

GraphQL API (AWS AppSync)
REST API (API Gateway + Lambda)

Storage

S3 buckets for images/files
DynamoDB NoSQL



Hosting

Deploy React, Next.js, static HTML
Automatic Git-based builds

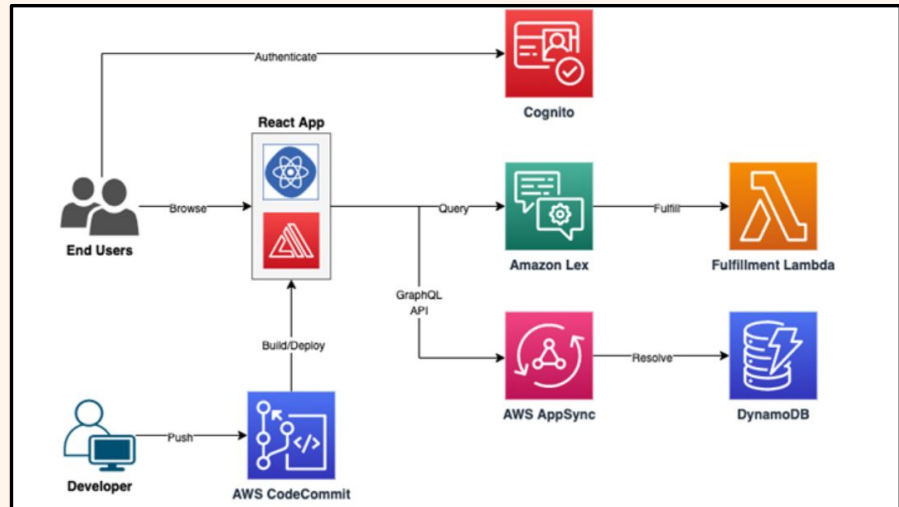


Serverless Functions

Built-in Lambda support



AMPLIFY WORKFLOW



Idea → Full stack → Deployed without leaving your editor

REAL AWS RESOURCES GENERATED

\$ amplify add api

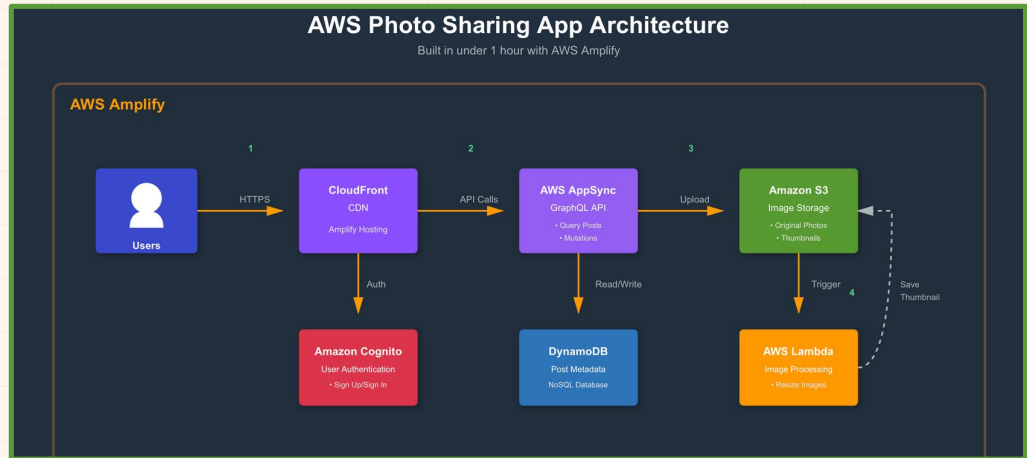


- AppSync or API Gateway
- Lambda functions
- IAM roles
- CloudWatch logs
- DynamoDB tables
- S3 buckets

EXAMPLE USE CASE

Photo Sharing App

- Amplify can quickly provide:
- User Auth (Cognito)
- Upload images (S3)
- GraphQL API for posts
- DynamoDB for storage
- Lambda for image resizing
- Hosting + CDN
- This entire system can be built in under 1 hour.



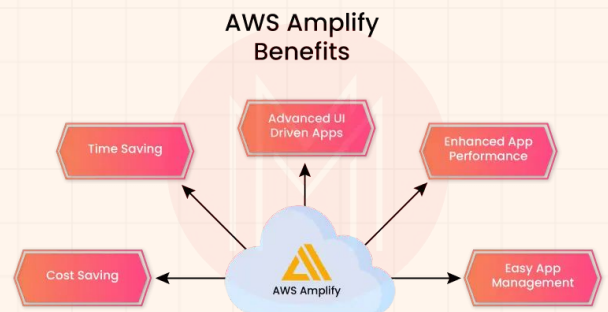
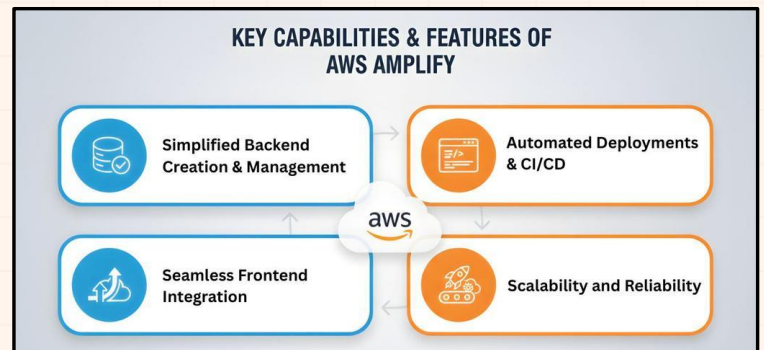
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ADVANTAGES

Why Developers Love Amplify

- Speeds up full-stack development
- Minimal AWS knowledge needed
- Tight integration with popular frameworks (React, Next.js, Flutter)
- Auto-provisioning infrastructure
- Secure, scalable by default
- Amplify Hosting supports SSR + ISR for Next.js
- Great for prototypes, hackathons, production MVPs



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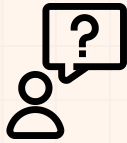
LIMITATIONS



- Less flexibility compared to manual AWS setup



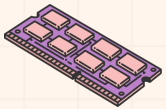
- Not ideal for very large enterprise apps needing fine-grained control



- CI/CD build times can be slow
- AppSync GraphQL learning curve
- Hard to migrate away once deeply integrated



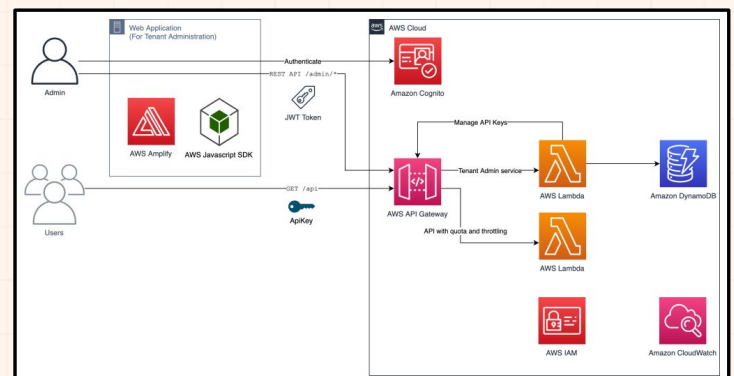
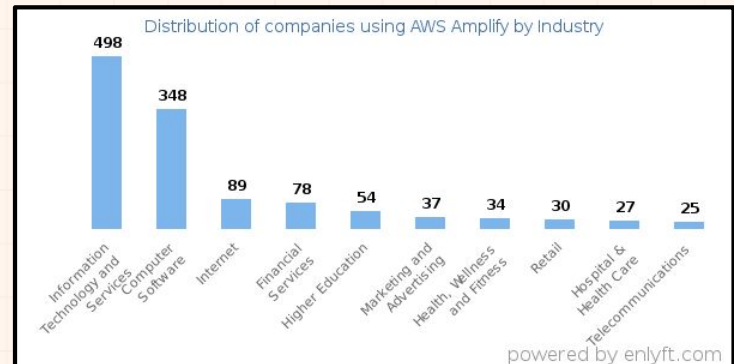
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REAL COMPANIES USING AMPLIFY

Examples include:

- Noom
- Orangetheory Fitness
- Hopin
- Neiman Marcus
- Coinbase Wallet (parts of stack)



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AMPLIFY VS FIREBASE

Product	AWS Amplify	Firebase
Vendor	AWS	Google
Backend APIs	REST + GraphQL	REST
Database	DynamoDB	Firestore
Hosting	CloudFront CDN	Firebase Hosting
Pricing	Pay-as-you-go AWS	Pay-as-you-go GCP
Strength	Enterprise integration	Simpler for small apps



Thanks for listening !

Sahil Bhatt
Pengcheng cao
Han Zhang