AWS re:Invent

NOV. 29 – DEC. 3, 2021 | LAS VEGAS, NV

ARC307

Design and build modern mobile apps

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AWS

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Today’s workshop

300-level (somewhere between 200–300)

A lot of code, but you can copy and paste

Account provided for workshop

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Important!

Please install Expo client on your smartphone

Search keyword: **expo go**

Android: https://bit.ly/arc307-android

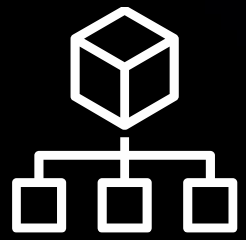
iOS: https://bit.ly/arc307-ios

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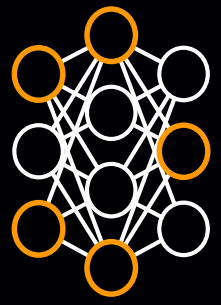
Modern mobile apps

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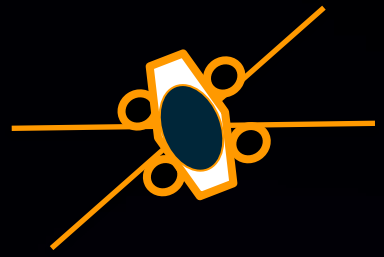
Modern mobile application



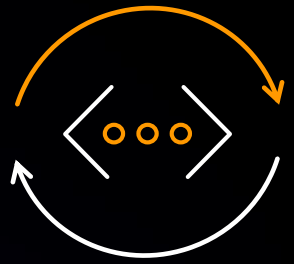
Shrink the scope



Offload the undifferentiated pieces



Right tool for the job



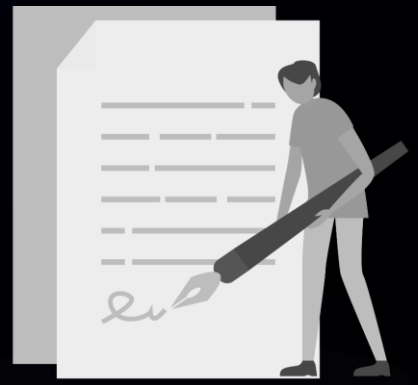
Automate everything



Build and ship faster

aws

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OurStory

https://bit.ly/reinvent-arc307

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OurStory



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OurStory



Have you ever posted a photo on the internet?

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OurStory



Have you ever posted a photo on the internet?

Now, let’s keep our own stories and memories!

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OurStory: Requirements



- Mobile (iOS / Android) support
- AuthN/AuthZ
- Posting
- Delete
- Like

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OurStory: Design



- What views does it have?
- What data does it need?

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OurStory: Design – View



- What views does it have?

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OurStory: Design – View



- What views does it have?
  - Single view

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OurStory: Design – View



- What views does it have?
  - Single view
  - Camera button

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OurStory: Design – View



- What views does it have?
  - Single view
  - Camera button
  - Pull-down refresh

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OurStory: Design – View



- What views does it have?

  - Single view
  - Camera button
  - Pull-down refresh
  - Like button

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OurStory: Design – View



- What views does it have?

  - Single view
  - Camera button
  - Pull-down refresh
  - Like button
  - Delete through More button

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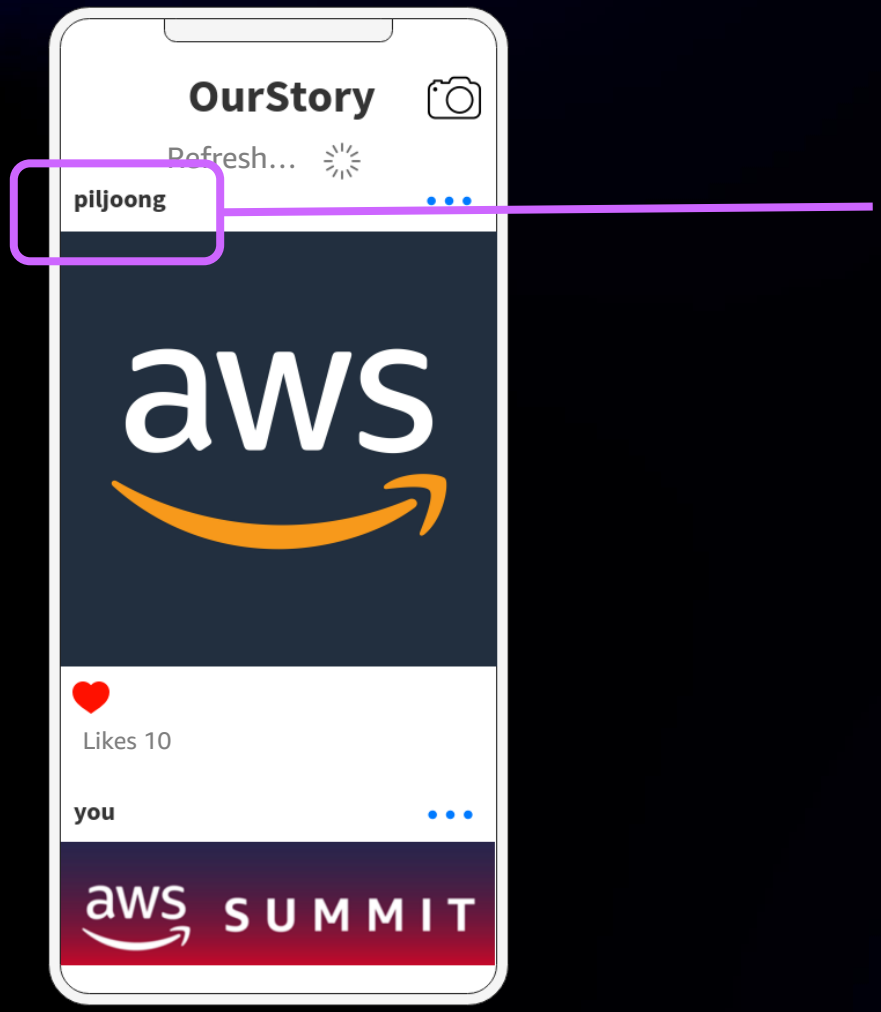
OurStory: Design – Data



- What data does it have?

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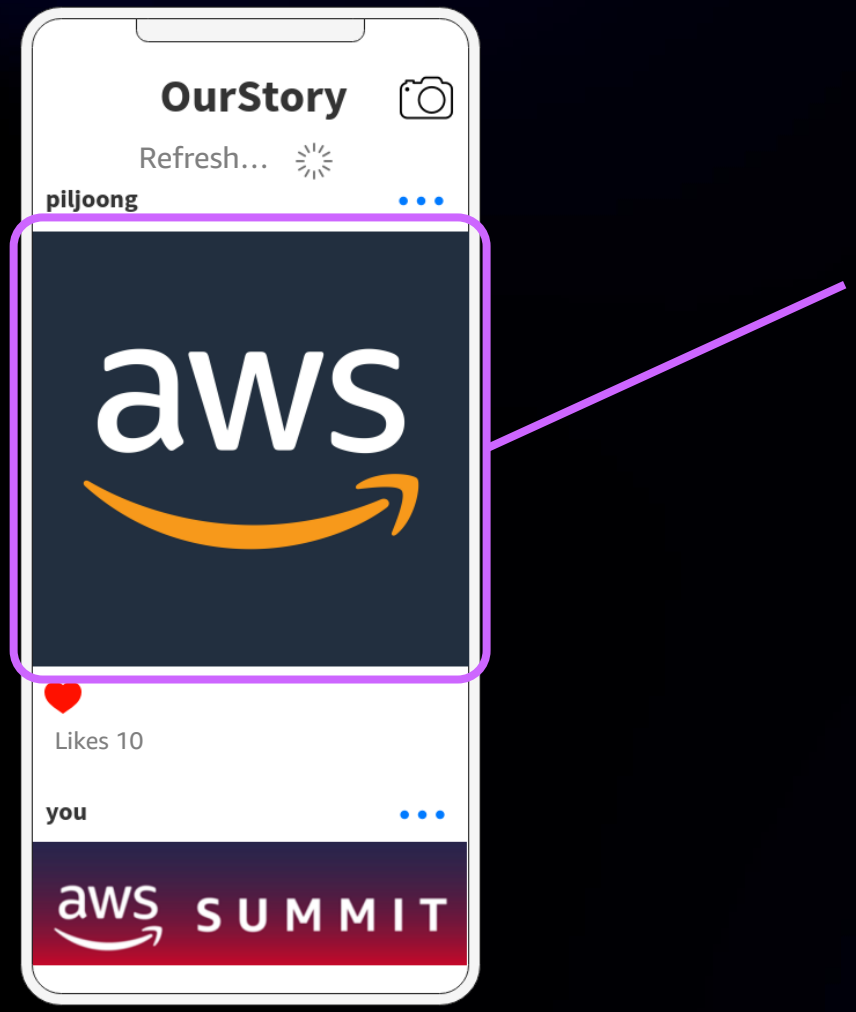
OurStory: Design – Data



- What data does it have?
  - User data

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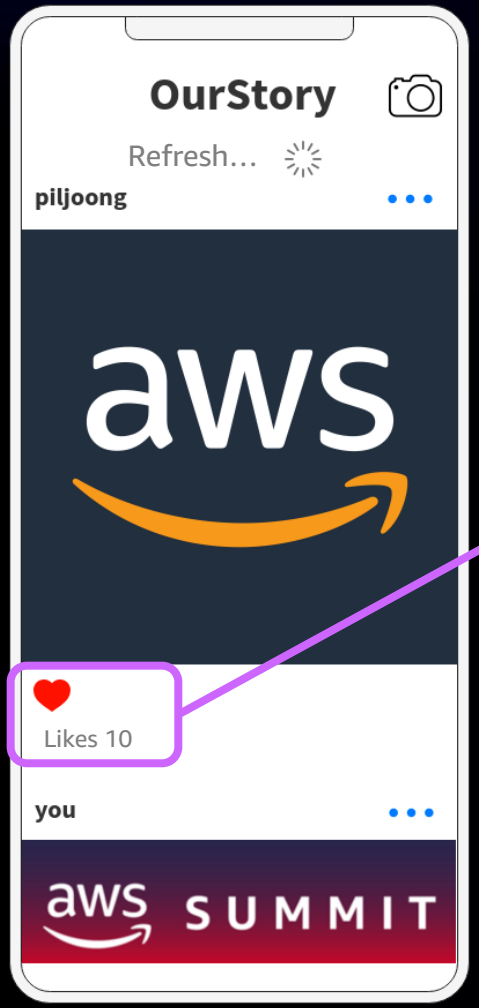
OurStory: Design – Data



- What data does it have?
  - User data
  - Posting data

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OurStory: Design – Data



- What data does it have?
  - User data
  - Posting data
  - Like data

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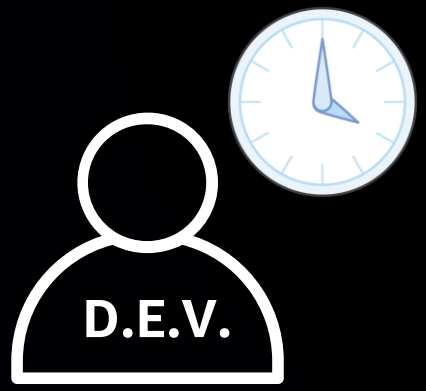
Step-by-step development approach

- Environment setup
- AuthN/AuthZ
- List
- Posting
- Delete
- Like

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Step-by-step development approach

- Environment setup
- AuthN/AuthZ
- List
- Posting
- Delete
- Like



All this
as quickly and easily as possible

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Toolchain for quick and easy development

IDE



AWS
Cloud9 IDE

Developer tools
Libraries, Frameworks

Expo





AWS
Amplify

React Native

Backend services



Amazon Cognito



AWS AppSync



Amazon Simple
Storage Service (S3)

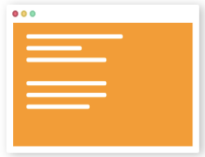


Amazon
DynamoDB

aws

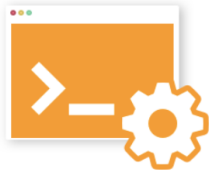
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AWS Amplify



Easy-to-Use Library

Choose your cloud services and easily connect them to your app with just a few lines of code.



Powerful Toolchain

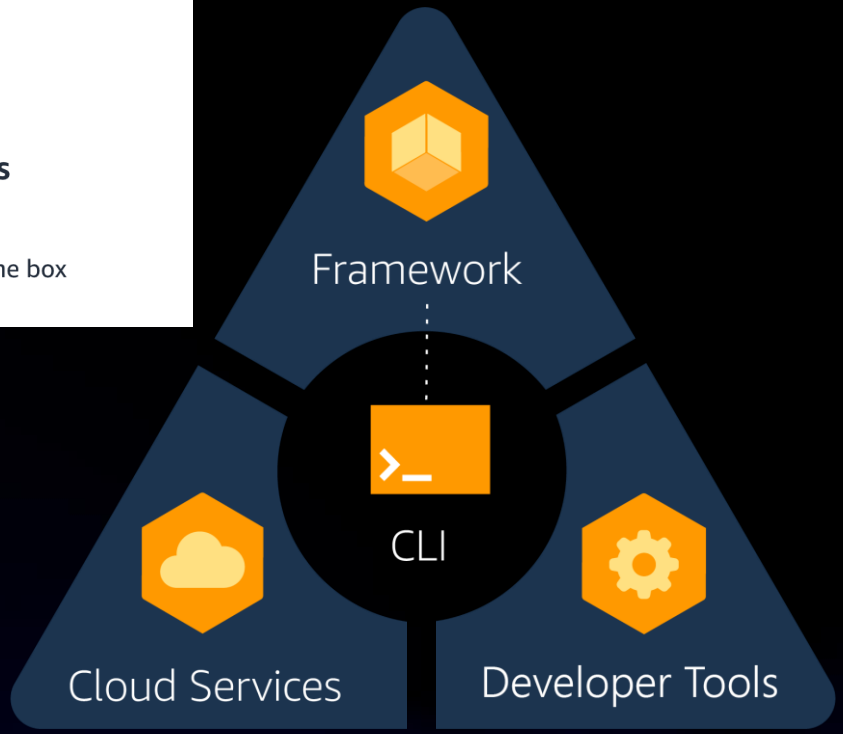
Effortlessly create and maintain sophisticated serverless backends for your apps.



Beautiful UI Components

Accelerate app development by leveraging our beautiful out-of-the box UI components.

iOS Android Web React Native



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The Android robot is reproduced or modified from work created and shared by Google and used according to terms described in the Creative Commons 3.0 Attribution License.

Capabilities

DataStore

On-device persistent storage that automatically synchronizes data between your apps and the cloud

Predictions

Add MI/ML capabilities to your app powered by cloud services

Analytics

Track user sessions, custom user attributes and in-app metrics

API

HTTP requests using REST and GraphQL with support for real-time data

Auth

AuthN + AuthZ library with prebuilt UI components for your app

Interactions

Conversational bots powered by deep learning technologies

PubSub

Connect your app to message-oriented middleware on the cloud

Notifications

Push notifications with campaign analytics and targeting

Storage

Manage user content securely in public, protected, and private storage

XR

Work with augmented reality and virtual reality content in your apps

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OurStory: Architecture



AWS Tools & SDKs

AWS Cloud

AWS AppSync

Amazon DynamoDB

Amazon Cognito

Amazon Simple Storage Service (S3)

Developer

AWS Cloud9 IDE

AWS Amplify CLI

Expo

React Native

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Let’s work…

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Need help?



Changsu Lee
SA



Woochul Jung
SA



Jiwon Yeom
SA



Kwangyoung Kim
SA



Davin Mien
SA



Sushanth Mangalore
SA

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Lab

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Wrap-up

- Developing modern mobile apps on AWS
  An integrated developer experience
- Amplify framework
  An open-source client framework, libraries, CLI, and UI components
- Cloud services
  Integrated via CLI toolchain with services such as AppSync, Cognito

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Thank you!

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