



Pune

2022





Building a virtual photo booth with AWS Amplify

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Agenda

- Why virtual photo-booth
- Why AWS Amplify?
- Architecture walkthrough





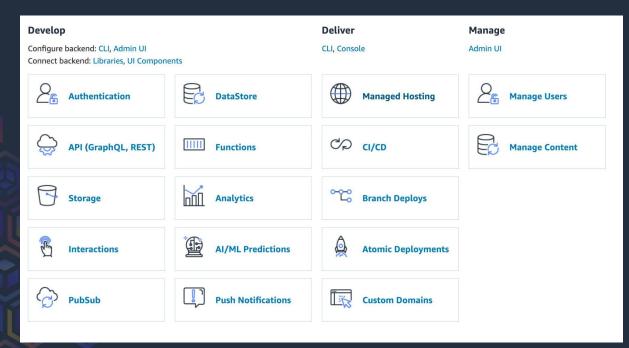
"Problems are nothing but wake-up calls for creativity" – Gerhard Gschwandtner

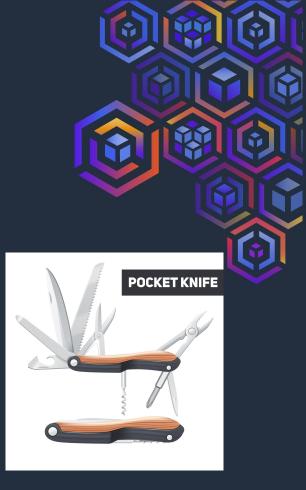






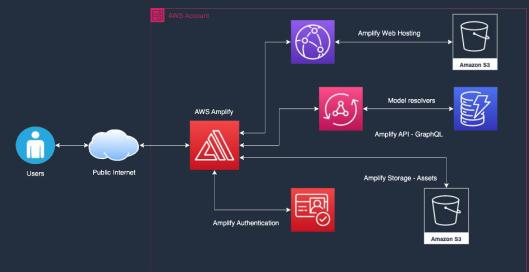
Why AWS Amplify?















amplify init





```
jnoeln@FWS-CHE-LT-7726 app % amplify init
Note: It is recommended to run this command from the root of your app directory
? Do you want to use an existing environment? No
? Enter a name for the environment acdpune
Using default provider awscloudformation
? Select the authentication method you want to use: AWS profile
For more information on AWS Profiles, see:
https://docs.aws.amazon.com/cli/latest/userguide/cli-configure-profiles.html
? Please choose the profile you want to use zachjonesnoel-amplify
Adding backend environment acdpune to AWS Amplify app: d1sf8u6p8dmeg4
Deployment completed.
Deployed root stack vpdev [ =========
                                                               ===== 1 4/4
        amplify-vpdev-acdpune-225022 AWS::CloudFormation::Stack
                                                                      CREATE_COMPLETE
                                                                                                     Wed Dec 07 2022 22:50:58...
       DeploymentBucket
                                                                      CREATE COMPLETE
                                       AWS::S3::Bucket
                                                                                                     Wed Dec 07 2022 22:50:56...
        UnauthRole
                                       AWS::IAM::Role
                                                                      CREATE_COMPLETE
                                                                                                     Wed Dec 07 2022 22:50:54...
        AuthRole
                                       AWS::IAM::Role
                                                                      CREATE COMPLETE
                                                                                                     Wed Dec 07 2022 22:50:54...
Deployment bucket fetched.
Initializing your environment: acdpune
A WARNING: your GraphQL API currently allows public create, read, update, and delete access to all models via an API Key. To configure PRODUCTION—READY authorization r
ules, review: https://docs.amplify.aws/cli/graphql/authorization-rules
 Building resource api/vpdev ✓ GraphQL schema compiled successfully.
Edit your schema at /Users/jnoeln/Documents/Projects/virtual-photobooth-avinash/repo/virtual-photobooth/app/amplify/backend/api/vpdev/schema.graphgl or place .graphgl f
iles in a directory at /Users/inoeln/Documents/Projects/virtual-photobooth-avinash/repo/virtual-photobooth/app/amplify/backend/api/vpdev/schema
Initialized provider successfully.

✓ Initialized your environment successfully.

Your project has been successfully initialized and connected to the cloud!
Some next steps:
"amplify status" will show you what you've added already and if it's locally configured or deployed
"amplify add <category>" will allow you to add features like user login or a backend API
"amplify push" will build all your local backend resources and provision it in the cloud
"amplify console" to open the Amplify Console and view your project status
"amplify publish" will build all your local backend and frontend resources (if you have hosting category added) and provision it in the cloud
Try "amplify add api" to create a backend API and then "amplify push" to deploy everything
 © 2018, Amazon Web Services, Inc. or its Affiliates. All rights reserved.
```





amplify add auth









jnoeln@FWS-CHE-LT-7726 app % amplify add auth
Using service: Cognito, provided by: awscloudformation

The current configured provider is Amazon Cognito.

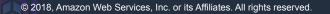
Do you want to use the default authentication and security configuration? Default configuration Warning: you will not be able to edit these selections.

How do you want users to be able to sign in? Username
Do you want to configure advanced settings? No. I am done.

✓ Successfully added auth resource vpdev681d8227 locally

✓ Some next steps:

"amplify push" will build all your local backend resources and provision it in the cloud "amplify publish" will build all your local backend and frontend resources (if you have hosting category added) and provision it in the cloud







amplify add api











```
jnoeln@FWS-CHE-LT-7726 app % amplify add api
? Select from one of the below mentioned services: GraphOL
? Here is the GraphQL API that we will create. Select a setting to edit or continue Authorization modes: API key (default, expiration time: 7 days from now)
? Choose the default authorization type for the API API key
✓ Enter a description for the API key: API for AppSync

✓ After how many days from now the API key should expire (1-365): 90
? Configure additional auth types? No
? Here is the GraphQL API that we will create. Select a setting to edit or continue Continue
? Choose a schema template: Blank Schema
A WARNING: your GraphQL API currently allows public create, read, update, and delete access to all models via an API Key. To configure PRODUCTION-READY authorization r
ules, review: https://docs.amplify.aws/cli/graphql/authorization-rules

✓ GraphQL schema compiled successfully.

Edit vour schema at /Users/inoeln/Documents/Projects/virtual-photobooth-avinash/app/amplify/backend/api/vpdey/schema.graphgl or place .graphgl files in a directory at /
Users/jnoeln/Documents/Projects/virtual-photobooth-avinash/app/amplify/backend/api/vpdev/schema
✓ Do you want to edit the schema now? (Y/n) · yes
Couldn't find selected code editor (Visual Studio Code) on your machine.
? Try opening with system-default editor instead? Yes

✓ Successfully added resource vpdev locally

✓ Some next steps:
"amplify push" will build all your local backend resources and provision it in the cloud
"amplify publish" will build all your local backend and frontend resources (if you have hosting category added) and provision it in the cloud
```





COMMUNITY DAY •••

```
type Template @model {
  id: ID!
  name: String!
  description: String
  image: String!
}
```

```
type Mutation {
type Query {
type Subscription {
   onCreateTemplate(filter: ModelSubscriptionTemplateFilterInput): Template
       @aws subscribe(mutations: ["createTemplate"])
   onUpdateTemplate(filter: ModelSubscriptionTemplateFilterInput): Template
       @aws_subscribe(mutations: ["updateTemplate"])
   onDeleteTemplate(filter: ModelSubscriptionTemplateFilterInput): Template
       @aws_subscribe(mutations: ["deleteTemplate"])
type Template {
   description: String
   createdAt: AWSDateTime!
   updatedAt: AWSDateTime!
```



```
async function createTemplate(){
    await API.graphql({
        query: createTemplate,
        variables: { input: postInfo }
    });
async function listTemplate(){
    await API.graphql({
        query: listTemplates,
        variables: { limit: 100 }
```

```
export const createTemplate = /* GraphQL */ `
  mutation CreateTemplate(
    $input: CreateTemplateInput!
    $condition: ModelTemplateConditionInput
    createTemplate(input: $input, condition: $condition) {
      name
      description
      createdAt
      updatedAt
export const listTemplates = /* GraphQL */ `
  guery ListTemplates(
    $filter: ModelTemplateFilterInput
    $nextToken: String
    listTemplates(filter: $filter, limit: $limit, nextToken:
      items {
        name
        description
        image
        createdAt
        updatedAt
```





amplify add storage









```
jnoeln@FWS-CHE-LT-7726 app % amplify add storage
? Select from one of the below mentioned services: Content (Images, audio, video, etc.)

Provide a friendly name for your resource that will be used to label this category in the project: · s3828656dd

Provide bucket name: · vpdevc8bda844c3aa4e2b931abeee9358ea63

Who should have access: · Auth and guest users

What kind of access do you want for Authenticated users? · create/update, read, delete

What kind of access do you want for Guest users? · create/update, read, delete

Do you want to add a Lambda Trigger for your S3 Bucket? (y/N) · no

A Auth configuration is required to allow unauthenticated users, but it is not configured properly.

Successfully updated auth resource locally.

Successfully added resource s3828656dd locally

A If a user is part of a user pool group, run "amplify update storage" to enable IAM group policies for CRUD operations

Some next steps:

"amplify push" builds all of your local backend resources and provisions them in the cloud

"amplify publish" builds all of your local backend and front—end resources (if you added hosting category) and provisions them in the cloud
```







amplify add hosting









jnoeln@FWS-CHE-LT-7726 app % amplify add hosting

✓ Select the plugin module to execute · Hosting with Amplify Console (Managed hosting with custom domains, Continuous deployment)

? Choose a type Manual deployment

You can now publish your app using the following command:

Command: amplify publish







amplify status







jnoeln@FWS-CHE-LT-7726 app % amplify status

Current Environment: acdpune

Category	Resource name	Operation	Provider plugin
Api	vpdev	Create	awscloudformation
Auth	vpdev21bcea36	Create	awscloudformation
Storage	s369d9a8f4	Create	awscloudformation
Hosting	Hosting S3AndCloudFront		awscloudformation
Hosting	amplifyhosting	Create	awscloudformation

GraphQL transformer version: 2

Amplify hosting urls:

FrontEnd Env	Domain
dev	https://dev.d1sf8u6p8dmeg4.amplifyapp.com







amplify publish







Deployed root stack acdpune [=======		=] 5/5					
amplify-acdpune-dev-231940	AWS::CloudFormation::Stack	UPDATE_COMPLETE	Wed	Dec 07	2022	23:29:12	I
storages355c05307	AWS::CloudFormation::Stack	CREATE_COMPLETE	Wed	Dec 07	2022	23:27:32	
authacdpunee61417c7	AWS::CloudFormation::Stack	CREATE_COMPLETE	Wed	Dec 07	2022	23:28:46	
apiacdpune	AWS::CloudFormation::Stack	CREATE_COMPLETE	Wed	Dec 07	2022	23:29:09	
hostingamplifyhosting	AWS::CloudFormation::Stack	CREATE_COMPLETE	Wed	Dec 07	2022	23:26:41	
Deployed auth acdpunee61417c7 [======		===] 10/10					
UserPool	AWS::Cognito::UserPool	CREATE_COMPLETE	Wed	Dec 07	2022	23:26:40	
UserPoolClientWeb	AWS::Cognito::UserPoolClient	CREATE_COMPLETE	Wed	Dec 07	2022	23:26:46	
UserPoolClient	AWS::Cognito::UserPoolClient	CREATE_COMPLETE	Wed	Dec 07	2022	23:26:46	
UserPoolClientRole	AWS::IAM::Role	CREATE_COMPLETE	Wed	Dec 07	2022	23:27:08	
UserPoolClientLambda	AWS::Lambda::Function	CREATE_COMPLETE	Wed	Dec 07	2022	23:27:20	
UserPoolClientLambdaPolicy	AWS::IAM::Policy	CREATE_COMPLETE	Wed	Dec 07	2022	23:27:42	
UserPoolClientLogPolicy	AWS::IAM::Policy	CREATE_COMPLETE	Wed	Dec 07	2022	23:28:03	
UserPoolClientInputs	Custom::LambdaCallout	CREATE_COMPLETE	Wed	Dec 07	2022	23:28:11	
	AWS::Cognito::IdentityPool	CREATE_COMPLETE	Wed	Dec 07	2022	23:28:17	
IdentityPoolRoleMap	AWS::Cognito::IdentityPoolRol	CREATE_COMPLETE	Wed	Dec 07	2022	23:28:22	
Deployed api acdpune [=========							
	AWS::AppSync::GraphQLApi	CREATE_COMPLETE				23:26:38	
GraphQLAPIDefaultApiKey215A6D		CREATE_COMPLETE				23:26:43	
GraphQLAPITransformerSchema3C		CREATE_COMPLETE				23:27:44	
	AWS::AppSync::DataSource	CREATE_COMPLETE				23:26:43	
	AWS::CloudFormation::Stack	CREATE_COMPLETE				23:28:50	
	AWS::CloudFormation::Stack	CREATE_COMPLETE	Wed	Dec 07	2022	23:29:04	
Deployed storage s355c05307 [=======							
	AWS::S3::Bucket	CREATE_COMPLETE				23:26:59	
	AWS::IAM::Policy	CREATE_COMPLETE				23:27:21	
	AWS::IAM::Policy	CREATE_COMPLETE				23:27:21	
	AWS::IAM::Policy	CREATE_COMPLETE				23:27:21	
	AWS::IAM::Policy	CREATE_COMPLETE				23:27:21	
	AWS::IAM::Policy	CREATE_COMPLETE	Wed	Dec 07	2022	23:27:20	
Deployed hosting amplifyhosting [=====		====] 1/1					
AmplifyBranch	AWS::Amplify::Branch	CREATE_COMPLETE	Wed	Dec 07	2022	23:26:37	



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Demo

https://vp.avinashdalvi.com









Success Story!











Thank you



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