



# COMMUNITY DAY

Pune

---

2022



# COMMUNITY DAY

Pune 2022

# Building a virtual photo booth with AWS Amplify

Jones Zachariah Noel N  
Senior developer advocate, Freshworks  
AWS Serverless Hero

Avinash Shashikant Dalvi  
Senior software engineer, Eagleview  
AWS Community Builder





# COMMUNITY DAY



👋 I'm Jones Zachariah Noel N  
Senior Developer Advocate, Freshworks  
AWS Serverless Hero  
[zachjonesnoel.com](http://zachjonesnoel.com)



👋 I'm Avinash Shashikant Dalvi  
Senior Software Engineer, Eagleview  
AWS Community Builder  
[avinashdalvi.com](http://avinashdalvi.com)



# COMMUNITY DAY

## Agenda

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



# COMMUNITY DAY

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







# COMMUNITY DAY

## Why AWS Amplify ?

### Develop

Configure backend: CLI, Admin UI

Connect backend: Libraries, UI Components



Authentication



DataStore



API (GraphQL, REST)



Functions



Storage



Analytics



Interactions



AI/ML Predictions



PubSub



Push Notifications

### Deliver

CLI, Console



Managed Hosting



CI/CD



Branch Deploys



Atomic Deployments



Custom Domains

### Manage

Admin UI



Manage Users



Manage Content





# COMMUNITY DAY





# COMMUNITY DAY

Pune 2022

# 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 [ ===== ] 4/4

amplify-vpdev-acdpune-225022	AWS::CloudFormation::Stack	CREATE_COMPLETE	Wed Dec 07 2022 22:50:58...
DeploymentBucket	AWS::S3::Bucket	CREATE_COMPLETE	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

⚠ 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 rules, 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.graphql or place .graphql files in a directory at /Users/jnoeln/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

Pro tip:

Try "amplify add api" to create a backend API and then "amplify push" to deploy everything



# COMMUNITY DAY

Pune 2022

## amplify add auth





# COMMUNITY DAY

```
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



# COMMUNITY DAY

Pune 2022

## amplify add api





# COMMUNITY DAY

```
jnoeln@FWS-CHE-LT-7726 app % amplify add api
? Select from one of the below mentioned services: GraphQL
? 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

▲ 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 rules, review: https://docs.amplify.aws/cli/graphql/authorization-rules

✓ GraphQL schema compiled successfully.

Edit your schema at /Users/jnoeln/Documents/Projects/virtual-photobooth-avinash/app/amplify/backend/api/vpdev/schema.graphql or place .graphql 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 {  
    createTemplate(input: CreateTemplateInput!, condition: ModelTemplateConditionInput): Template  
    updateTemplate(input: UpdateTemplateInput!, condition: ModelTemplateConditionInput): Template  
    deleteTemplate(input: DeleteTemplateInput!, condition: ModelTemplateConditionInput): Template  
  }  
  
  type Query {  
    getTemplate(id: ID!): Template  
    listTemplates(filter: ModelTemplateFilterInput, limit: Int, nextToken: String):  
    ModelTemplateConnection  
  }  
  
  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 {  
    id: ID!  
    name: String!  
    description: String  
    image: String!  
    createdAt: AWSDateTime!  
    updatedAt: AWSDateTime!  
  }  
}
```



# COMMUNITY DAY

```
// Invoking mutations from Front-end
async function createTemplate(){
  await API.graphql({
    query: createTemplate,
    variables: { input: postInfo }
  });
}

// Invoking queries from Front-end
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) {
      id
      name
      description
      image
      createdAt
      updatedAt
    }
  }
`;

export const listTemplates = /* GraphQL */ `
  query ListTemplates(
    $filter: ModelTemplateFilterInput
    $limit: Int
    $nextToken: String
  ) {
    listTemplates(filter: $filter, limit: $limit, nextToken:
$nextToken) {
      items {
        id
        name
        description
        image
        createdAt
        updatedAt
      }
      nextToken
    }
  }
`;
```



# COMMUNITY DAY

Pune 2022

## amplify add storage





# COMMUNITY DAY

```
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: · vpdevc8bda844c3aa4e2b931abeeee9358ea63
✓ 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
△ Auth configuration is required to allow unauthenticated users, but it is not configured properly.
✓ Successfully updated auth resource locally.
✓ Successfully added resource s3828656dd locally

△ 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
```



```
// Using Storage to perform S3 PutObject
await Storage.put(formState.image.name, formState.image.fileInfo);

// Using Storage to get S3 object
await Storage.get(currentPost.image, { download: true });
await Storage.get(currentPost.image);
```



# COMMUNITY DAY

Pune 2022

## amplify add hosting







# COMMUNITY DAY



```
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
```



**COMMUNITY DAY**

**Pune 2022**

amplify status





# COMMUNITY DAY

```
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	S3AndCloudFront	Create	awscloudformation
Hosting	amplifyhosting	Create	awscloudformation

GraphQL transformer version: 2

Amplify hosting urls:

FrontEnd Env	Domain
dev	<a href="https://dev.d1sf8u6p8dmeg4.amplifyapp.com">https://dev.d1sf8u6p8dmeg4.amplifyapp.com</a>



# COMMUNITY DAY

Pune 2022

# amplify publish





# COMMUNITY DAY

Deployed root stack acdpune [ ===== ] 5/5			
amplify-acdpune-dev-231940	AWS::CloudFormation::Stack	UPDATE_COMPLETE	Wed Dec 07 2022 23:29:12...
storages355c05307	AWS::CloudFormation::Stack	CREATE_COMPLETE	Wed Dec 07 2022 23:27:32...
authacdpune61417c7	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 acdpune61417c7 [ ===== ] 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...
IdentityPool	AWS::Cognito::IdentityPool	CREATE_COMPLETE	Wed Dec 07 2022 23:28:17...
IdentityPoolRoleMap	AWS::Cognito::IdentityPoolRoleMap	CREATE_COMPLETE	Wed Dec 07 2022 23:28:22...
Deployed api acdpune [ ===== ] 6/6			
GraphQLAPI	AWS::AppSync::GraphQLApi	CREATE_COMPLETE	Wed Dec 07 2022 23:26:38...
GraphQLAPIDefaultApiKey215A6D...	AWS::AppSync::ApiKey	CREATE_COMPLETE	Wed Dec 07 2022 23:26:43...
GraphQLAPITransformerSchema3C...	AWS::AppSync::GraphQLSchema	CREATE_COMPLETE	Wed Dec 07 2022 23:27:44...
GraphQLAPINONEDS95A13CF0	AWS::AppSync::DataSource	CREATE_COMPLETE	Wed Dec 07 2022 23:26:43...
Todo	AWS::CloudFormation::Stack	CREATE_COMPLETE	Wed Dec 07 2022 23:28:50...
CustomResourcesjson	AWS::CloudFormation::Stack	CREATE_COMPLETE	Wed Dec 07 2022 23:29:04...
Deployed storage s355c05307 [ ===== ] 7/7			
S3Bucket	AWS::S3::Bucket	CREATE_COMPLETE	Wed Dec 07 2022 23:26:59...
S3AuthProtectedPolicy	AWS::IAM::Policy	CREATE_COMPLETE	Wed Dec 07 2022 23:27:21...
S3AuthPublicPolicy	AWS::IAM::Policy	CREATE_COMPLETE	Wed Dec 07 2022 23:27:21...
S3AuthReadPolicy	AWS::IAM::Policy	CREATE_COMPLETE	Wed Dec 07 2022 23:27:21...
S3AuthUploadPolicy	AWS::IAM::Policy	CREATE_COMPLETE	Wed Dec 07 2022 23:27:21...
S3AuthPrivatePolicy	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...





# COMMUNITY DAY

Pune 2022

## Demo

<https://vp.avinashdalvi.com>





**COMMUNITY DAY**

**Pune 2022**

**Success  
Story!**

Introducing





# COMMUNITY DAY

Pune 2022

# Thank you



@zachjonesnoel



@AvinashDalvi\_

