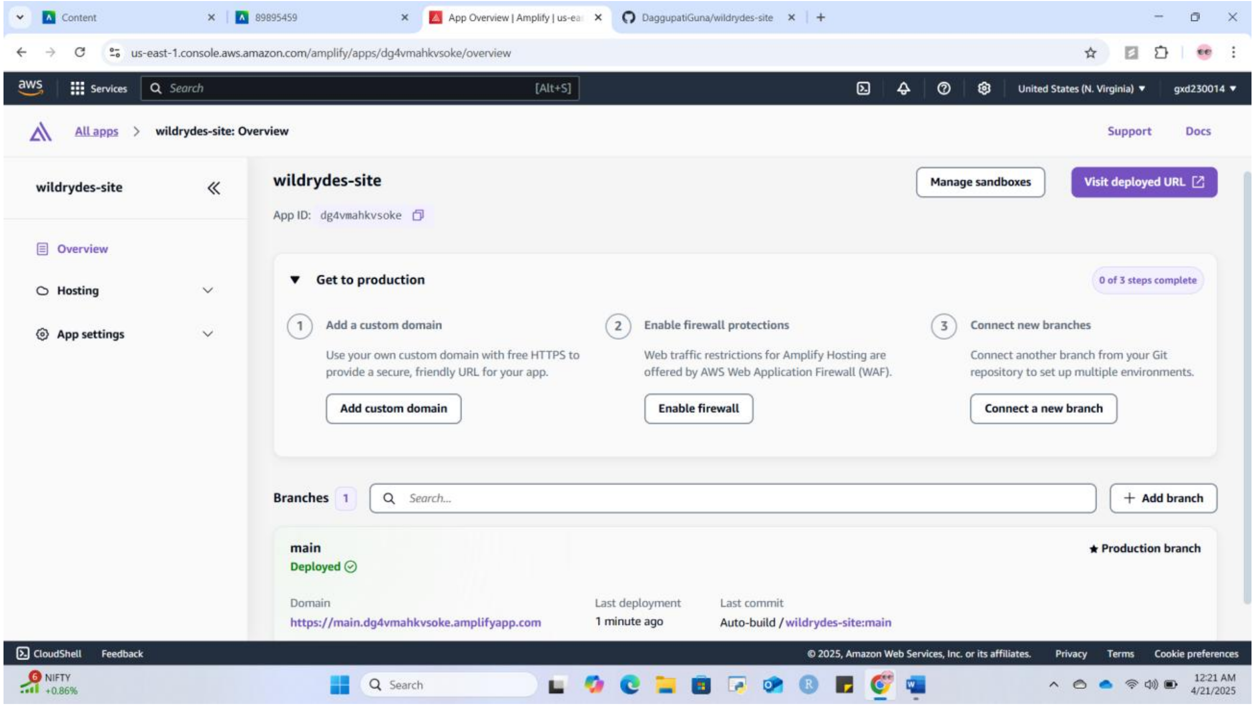
Guna Shekar Daggupati

Gxd230014

Lab08.Building a Web Application on AWS

Wild Ryde's Application

i. Creating a new app for hosting in AWS Amplify



us-east-1.console.aws.amazon.com/amplify/apps/dg4vmahkvsoke/overview

wildrydes-site: Overview

wildrydes-site

App ID: dg4vmahkvsoke

Get to production

0 of 3 steps complete

1 Add a custom domain

Use your own custom domain with free HTTPS to provide a secure, friendly URL for your app.

2 Enable firewall protections

Web traffic restrictions for Amplify Hosting are offered by AWS Web Application Firewall (WAF).

3 Connect new branches

Connect another branch from your Git repository to set up multiple environments.

Branches 1

main

Deployed

★ Production branch

Domain	Last deployment	Last commit
https://main.dg4vmahkvsoke.amplifyapp.com	1 minute ago	Auto-build / wildrydes-site:main

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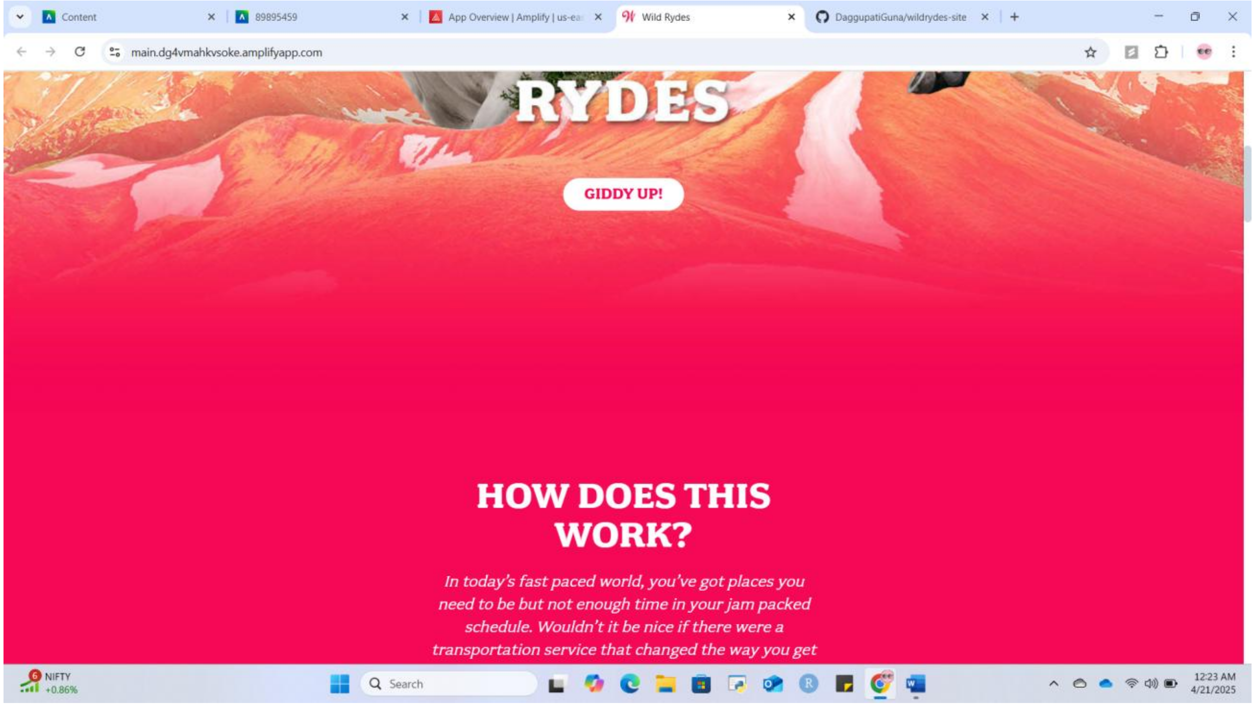
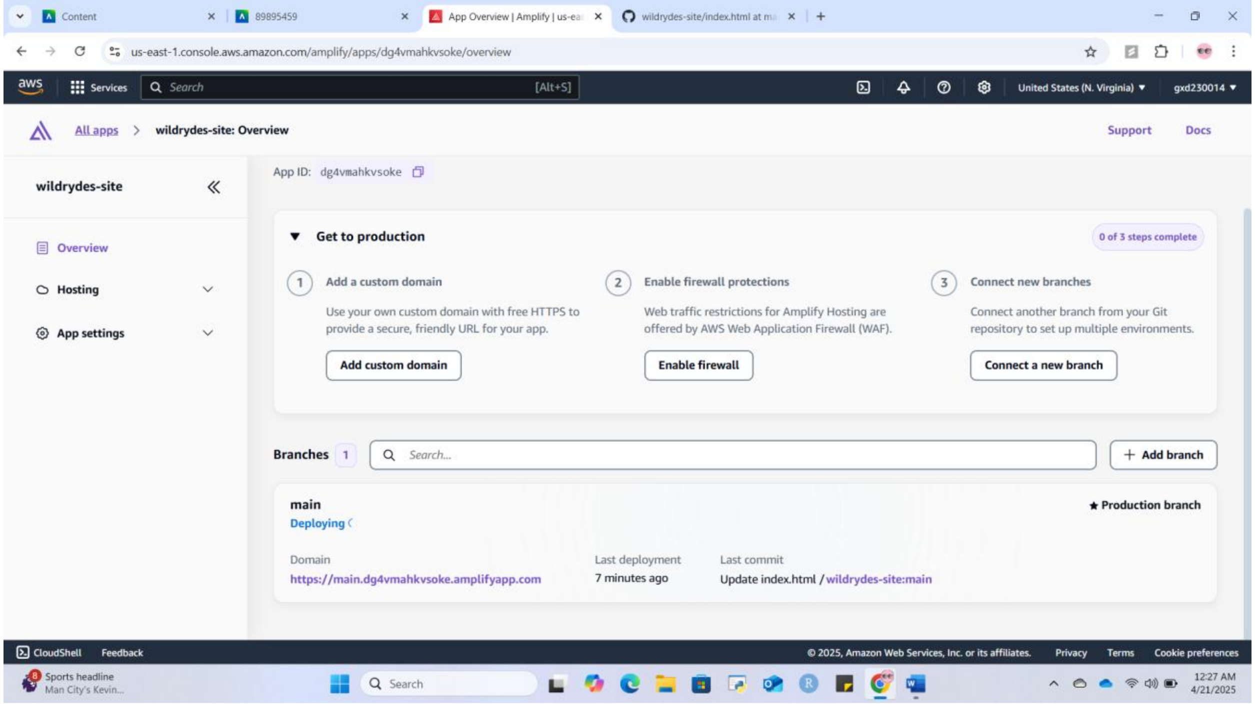
This is the wildydes website with " how does this Work"


Content
89895459
App Overview | Amplify | us-ea
Wild Rydes
DaggupatiGuna/wildrydes-site
main.dg4vmahkvsoke.amplifyapp.com
RYDES
GIDDY UP!
NIFTY +0.86%
Search
12:23 AM 4/21/2025

HOW DOES THIS WORK?

In today's fast paced world, you've got places you need to be but not enough time in your jam packed schedule. Wouldn't it be nice if there were a transportation service that changed the way you get

ii. Setting up Amazon Cognito for user authentication



App ID: dg4vmahkvsoke

▼ Get to production — 0 of 3 steps complete

1 Add a custom domain

Use your own custom domain with free HTTPS to provide a secure, friendly URL for your app.

2 Enable firewall protections

Web traffic restrictions for Amplify Hosting are offered by AWS Web Application Firewall (WAF).

3 Connect new branches

Connect another branch from your Git repository to set up multiple environments.

Branches 1

main — Deploying — ★ Production branch

Domain: https://main.dg4vmahkvsoke.amplifyapp.com

Last deployment: 7 minutes ago

Last commit: Update index.html / wildrydes-site:main

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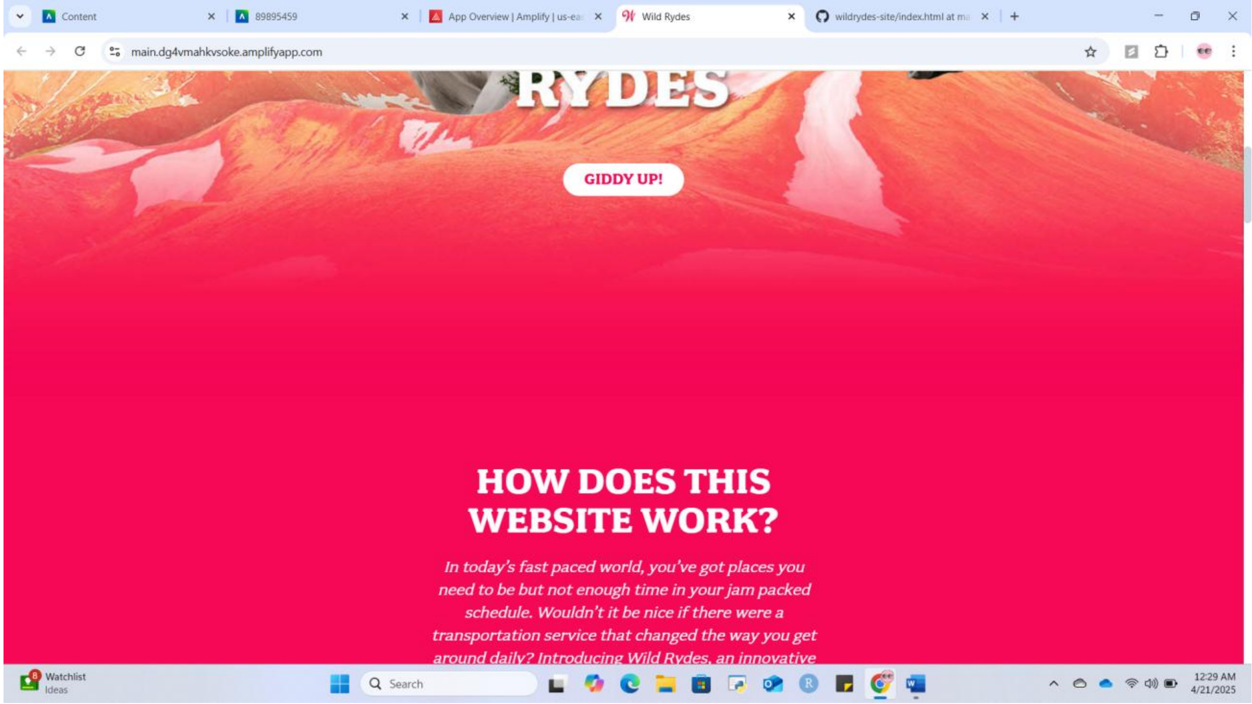
Changed the text to “ how does this website work” in github

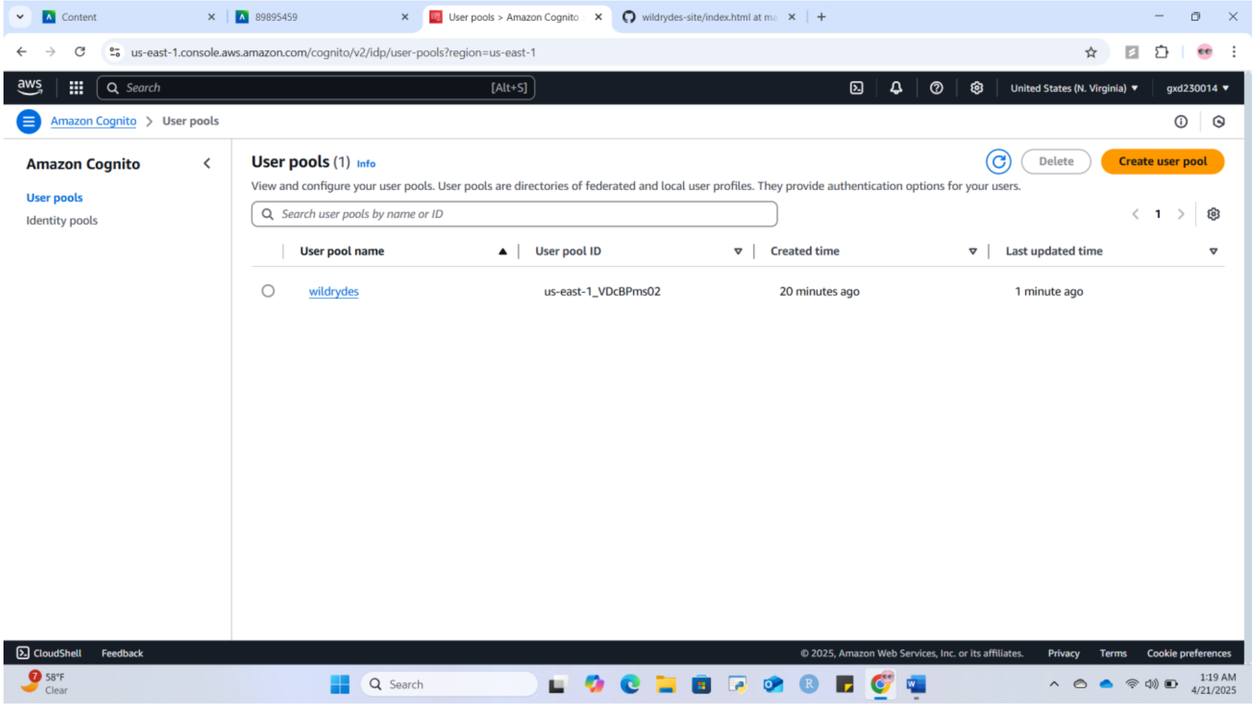


Content
89895459
App Overview | Amplify | us-ea
Wild Rydes
wildrydes-site/index.html at ma
main.dg4vmahkvsoke.amplifyapp.com
RYDES
GIDDY UP!

HOW DOES THIS WEBSITE WORK?

In today’s fast paced world, you’ve got places you need to be but not enough time in your jam packed schedule. Wouldn’t it be nice if there were a transportation service that changed the way you get around daily? Introducing Wild Rydes, an innovative

Watchlist
Ideas
Search
12:29 AM
4/21/2025



Content
89895459
User pools > Amazon Cognito
wildrydes-site/index.html at ma
us-east-1.console.aws.amazon.com/cognito/v2/idp/user-pools?region=us-east-1
aws
Search
[Alt+S]
United States (N. Virginia)
gxd230014
Amazon Cognito
User pools

Amazon Cognito

User pools

Identity pools

User pools (1) Info

Delete

Create user pool

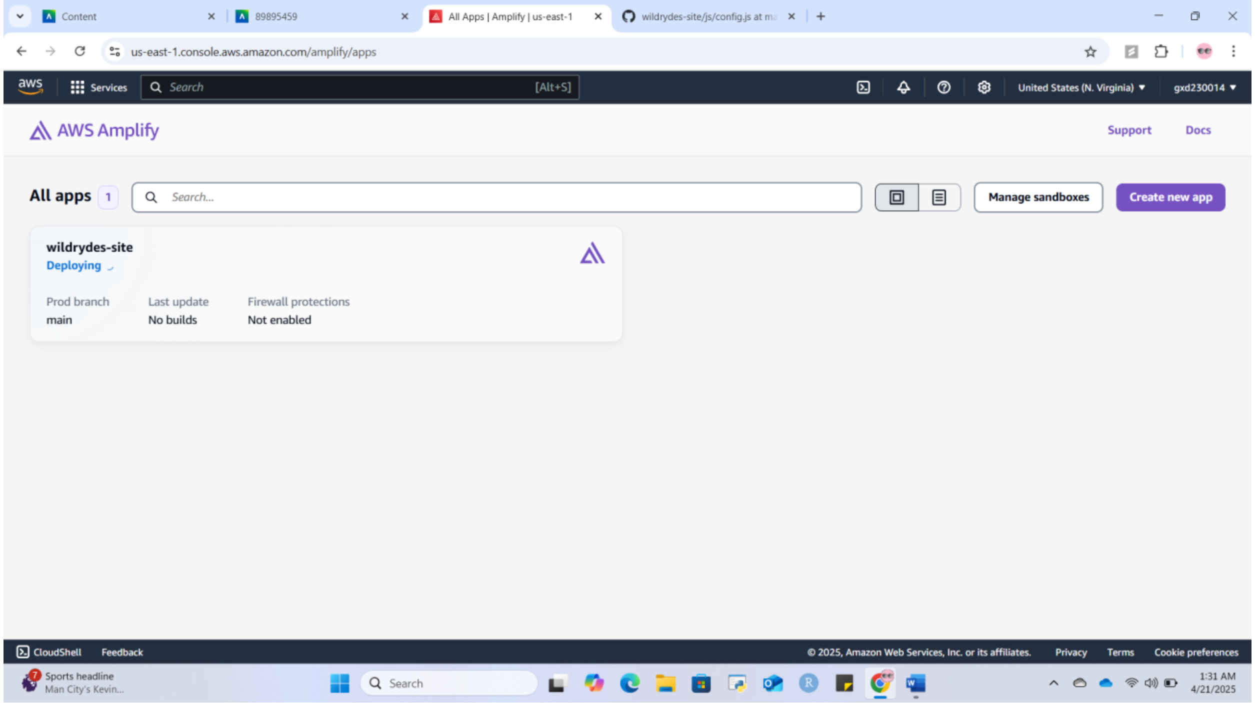
View and configure your user pools. User pools are directories of federated and local user profiles. They provide authentication options for your users.

Search user pools by name or ID

	User pool name	User pool ID	Created time	Last updated time
○	wildrydes	us-east-1_VDcBPms02	20 minutes ago	1 minute ago

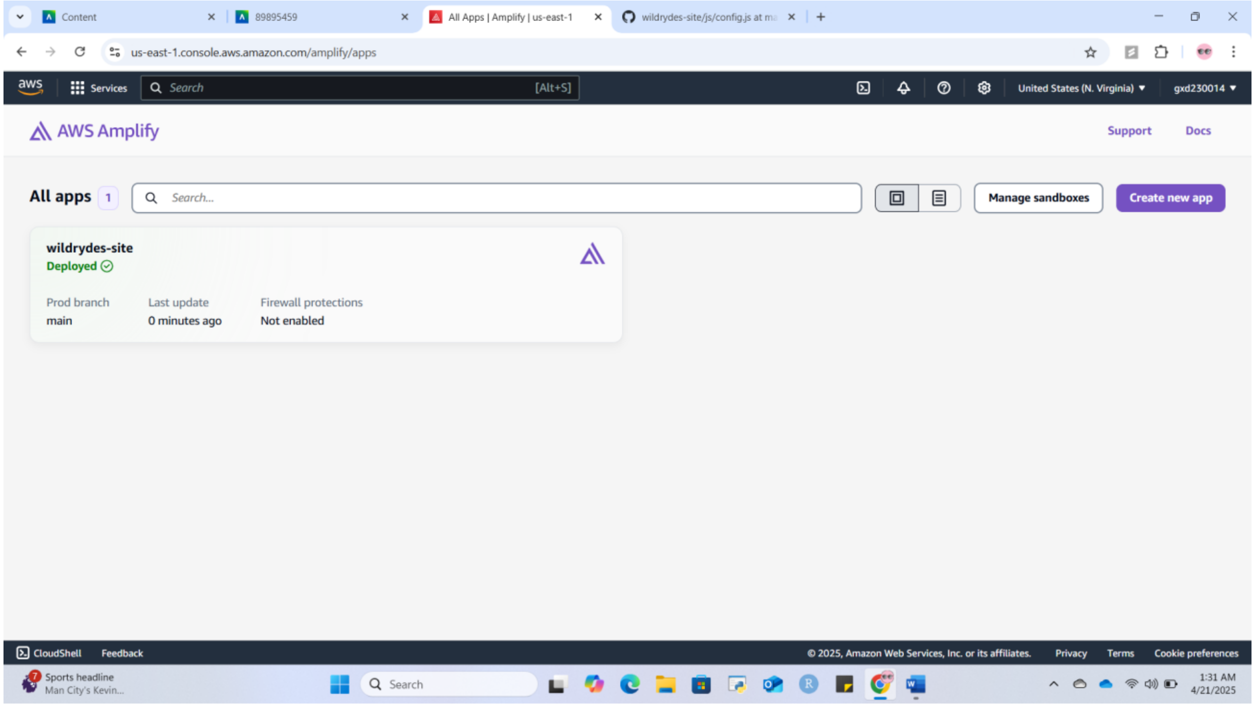
User pool id : us-east-1_VDcBPms02

Client id: 6rtnu9rrndqlv3eh5ubpaom9on



wildrydes-site
Deploying

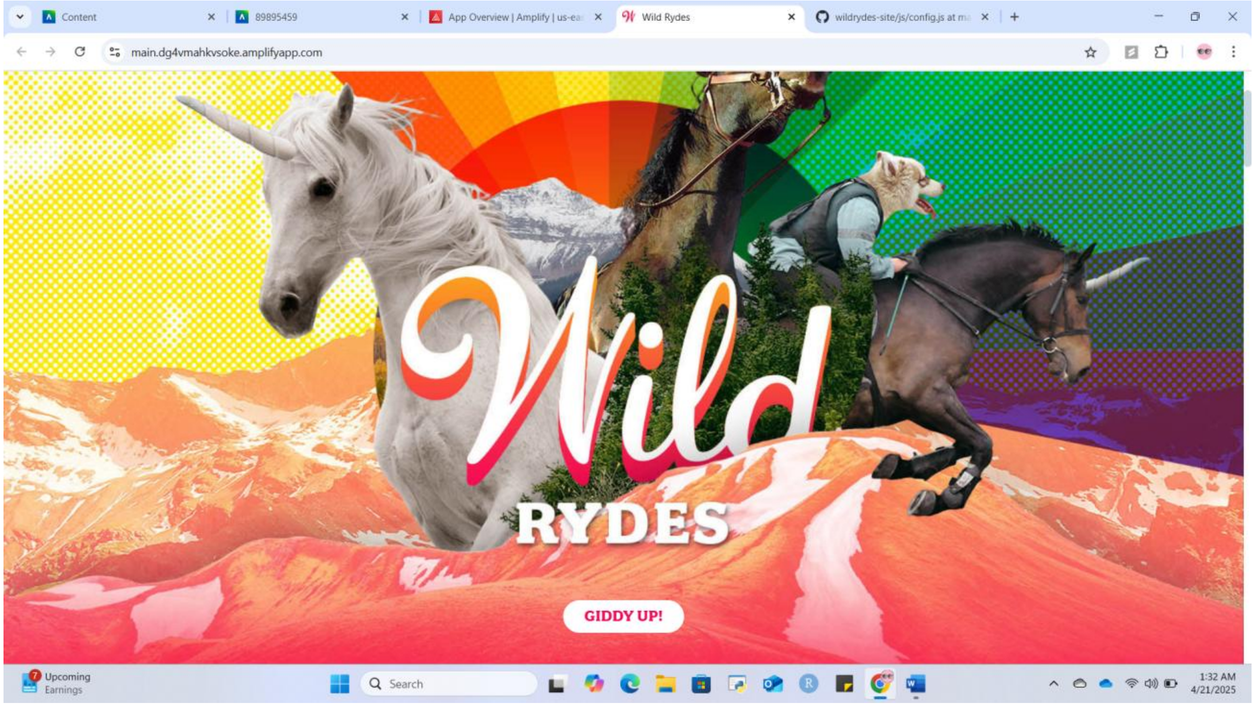
Prod branch	Last update	Firewall protections
main	No builds	Not enabled

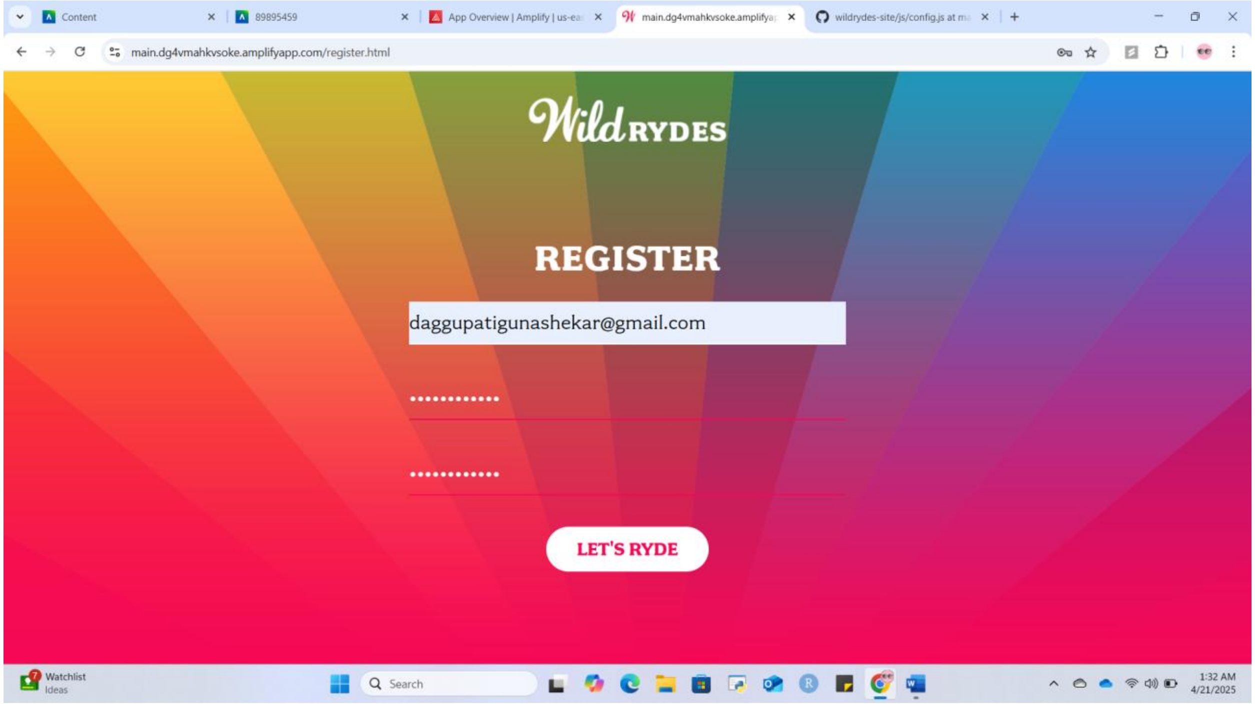


wildrydes-site
Deployed ✓

Prod branch	Last update	Firewall protections
main	0 minutes ago	Not enabled

Created a login page for the Wild Rydes Application using AWS Cognito.


Content
89895459
App Overview | Amplify | us-ea
Wild Rydes
wildrydes-site/js/config.js at m
main.dg4vmahkvsoke.amplifyapp.com
Wild
RYDES
GIDDY UP!
Upcoming
Earnings
Search
1:32 AM
4/21/2025


Content
89895459
App Overview | Amplify | us-ea
main.dg4vmahkvsoke.amplifya
wildrydes-site/js/config.js at m
main.dg4vmahkvsoke.amplifyapp.com/register.html
Wild RYDES
Watchlist
Ideas
Search
1:32 AM
4/21/2025

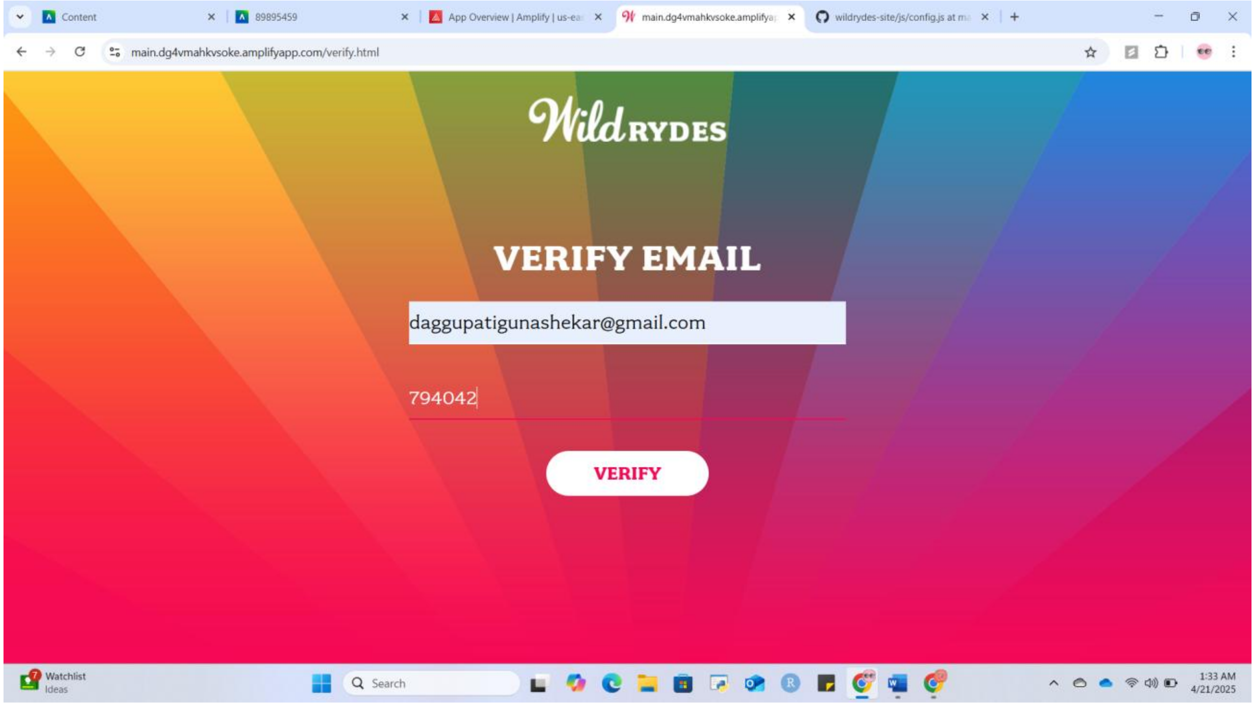
REGISTER

daggupatigunashekar@gmail.com

••••••••••••

••••••••••••

LET'S RYDE

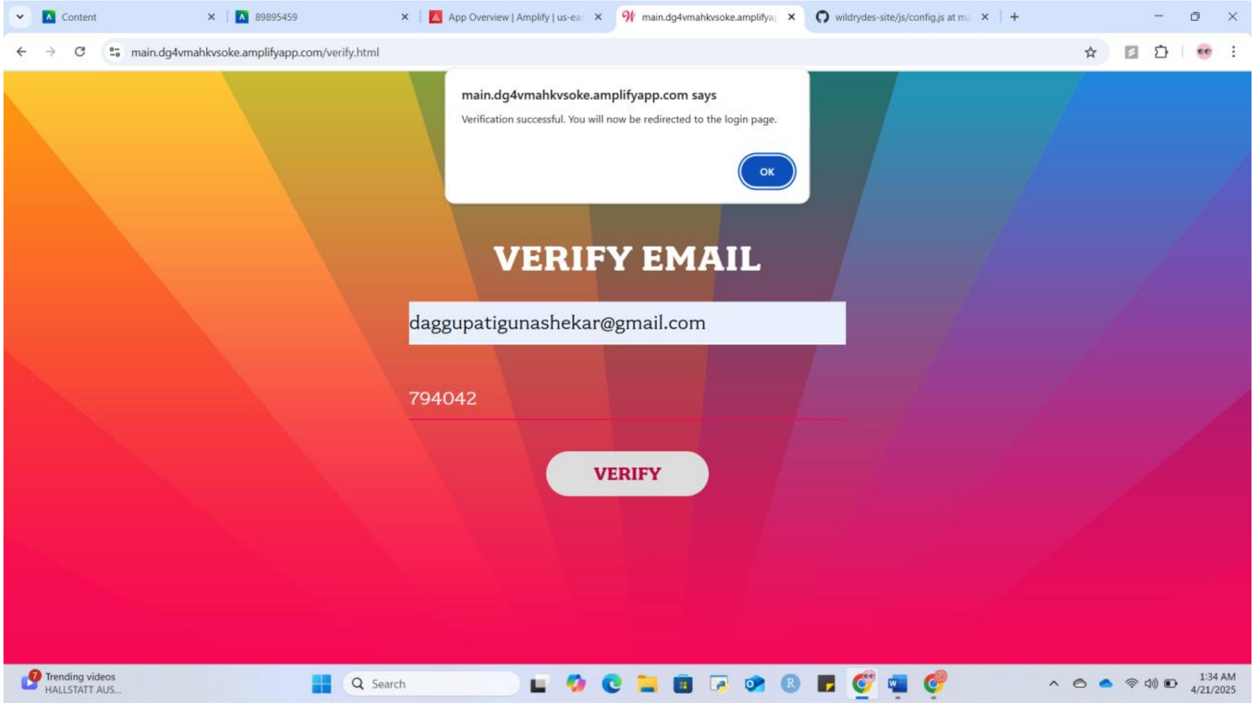


Content
89895459
App Overview | Amplify | us-ea
main.dg4vmahkvsoke.amplifya
wildrydes-site/js/config.js at m
main.dg4vmahkvsoke.amplifyapp.com/verify.html
Wild RYDES
Watchlist
Ideas
Search
1:33 AM
4/21/2025

VERIFY EMAIL

daggupatigunashekar@gmail.com

794042



Content
89895459
App Overview | Amplify | us-ea
main.dg4vmahkvsoke.amplifya
wildrydes-site/js/config.js at m
main.dg4vmahkvsoke.amplifyapp.com/verify.html
Trending videos
HALLSTATT AUS...
Search
1:34 AM
4/21/2025

main.dg4vmahkvsoke.amplifyapp.com says

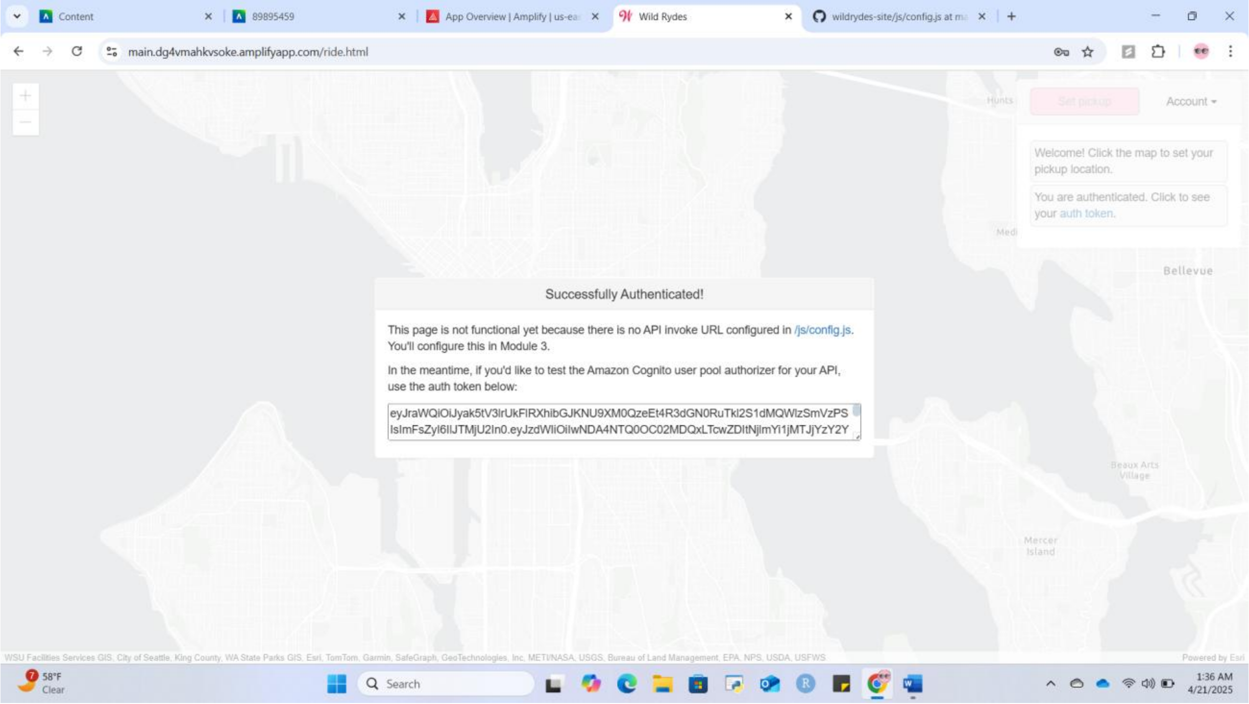
Verification successful. You will now be redirected to the login page.

VERIFY EMAIL

daggupatigunashekar@gmail.com

794042

Successfully signed in and generated token.



main.dg4vmahkvsoke.amplifyapp.com/ride.html

Welcome! Click the map to set your pickup location.

You are authenticated. Click to see your auth token.

Successfully Authenticated!

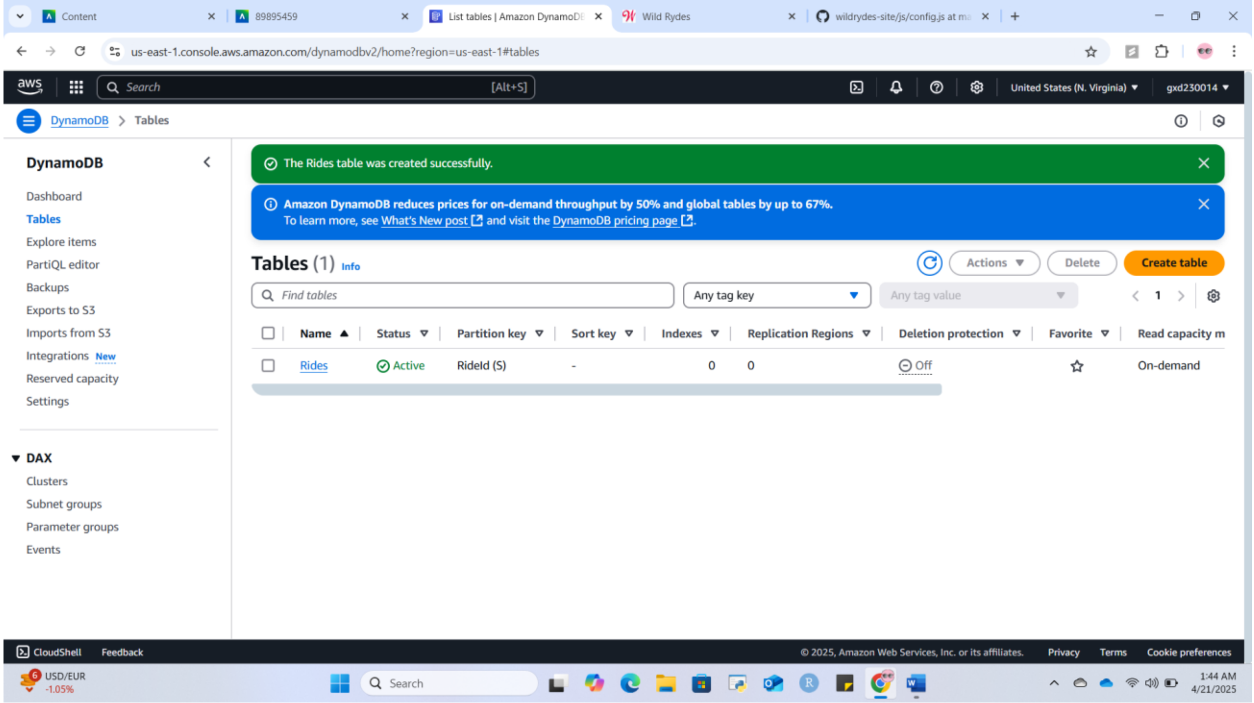
This page is not functional yet because there is no API invoke URL configured in /js/config.js. You'll configure this in Module 3.

In the meantime, if you'd like to test the Amazon Cognito user pool authorizer for your API, use the auth token below:

```
eyJraWQiOiJyak5tV3lrUkFIRXhibGJKNU9XM0QzeEt4R3dGN0RuTkl2S1dMQWlzSmVzPS
IsImFsZyI6IlJTMjU2In0.eyJzdWIiOiIwNDA4NTQ0OC02MDQxLTcwZDItNjlmYi1jMTJjYzY2Y
```

Set pickup
Account
Bellevue
Beaux Arts Village
Mercer Island
WSU Facilities Services GIS, City of Seattle, King County, WA State Parks GIS, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWS
Powered by Esri

Created a DynamoDB table



us-east-1.console.aws.amazon.com/dynamodbv2/home?region=us-east-1#tables

The Rides table was created successfully.

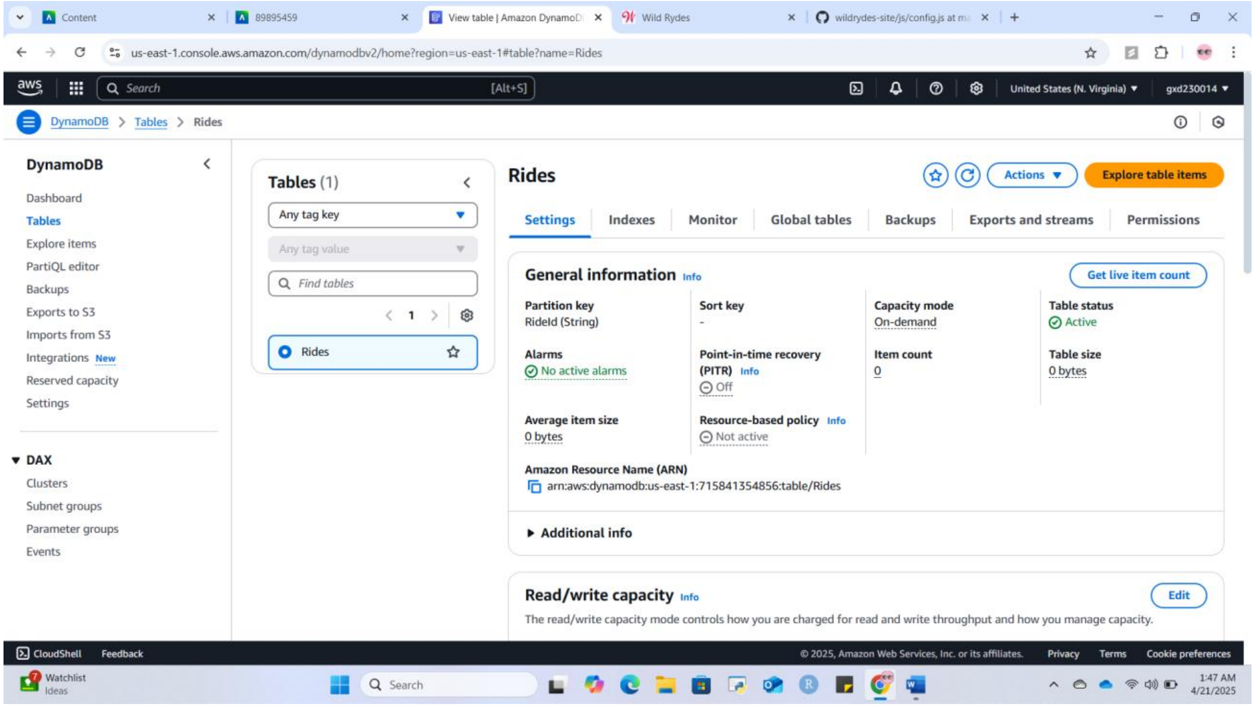
Amazon DynamoDB reduces prices for on-demand throughput by 50% and global tables by up to 67%.
To learn more, see What's New post and visit the DynamoDB pricing page.

Tables (1) Info

	Name	Status	Partition key	Sort key	Indexes	Replication Regions	Deletion protection	Favorite	Read capacity m
□	Rides	Active	RideId (S)	-	0	0	Off	☆	On-demand

In the table rides we have copied the ARN

arn:aws:dynamodb:us-east-1:715841354856:table/Rides



Rides

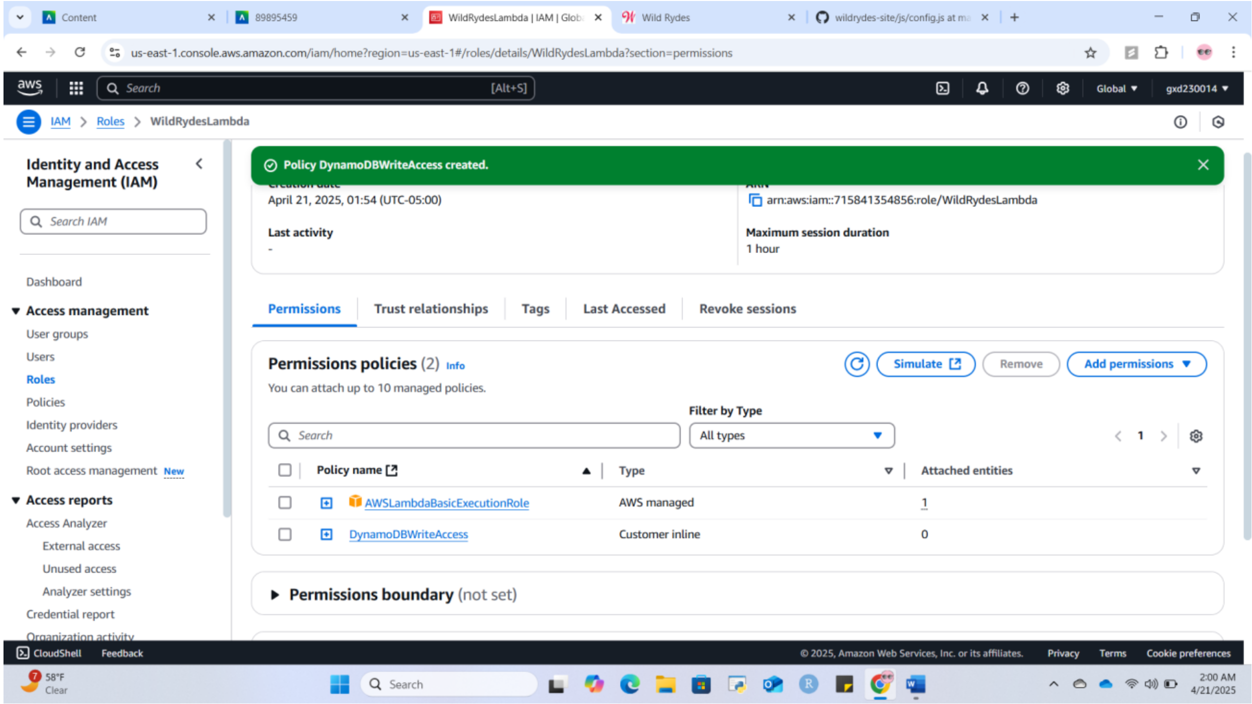
General information Info

Partition key	Sort key	Capacity mode	Table status
RideId (String)	-	On-demand	Active
Alarms	Point-in-time recovery (PITR) Info	Item count	Table size
No active alarms	Off	0	0 bytes
Average item size	Resource-based policy Info		
0 bytes	Not active		

Amazon Resource Name (ARN)
arn:aws:dynamodb:us-east-1:715841354856:table/Rides

Read/write capacity Info

The read/write capacity mode controls how you are charged for read and write throughput and how you manage capacity.



Policy DynamoDBWriteAccess created.

Creation date	ARN
April 21, 2025, 01:54 (UTC-05:00)	arn:aws:iam::715841354856:role/WildRydesLambda
Last activity	Maximum session duration
-	1 hour

Permissions policies (2) Info

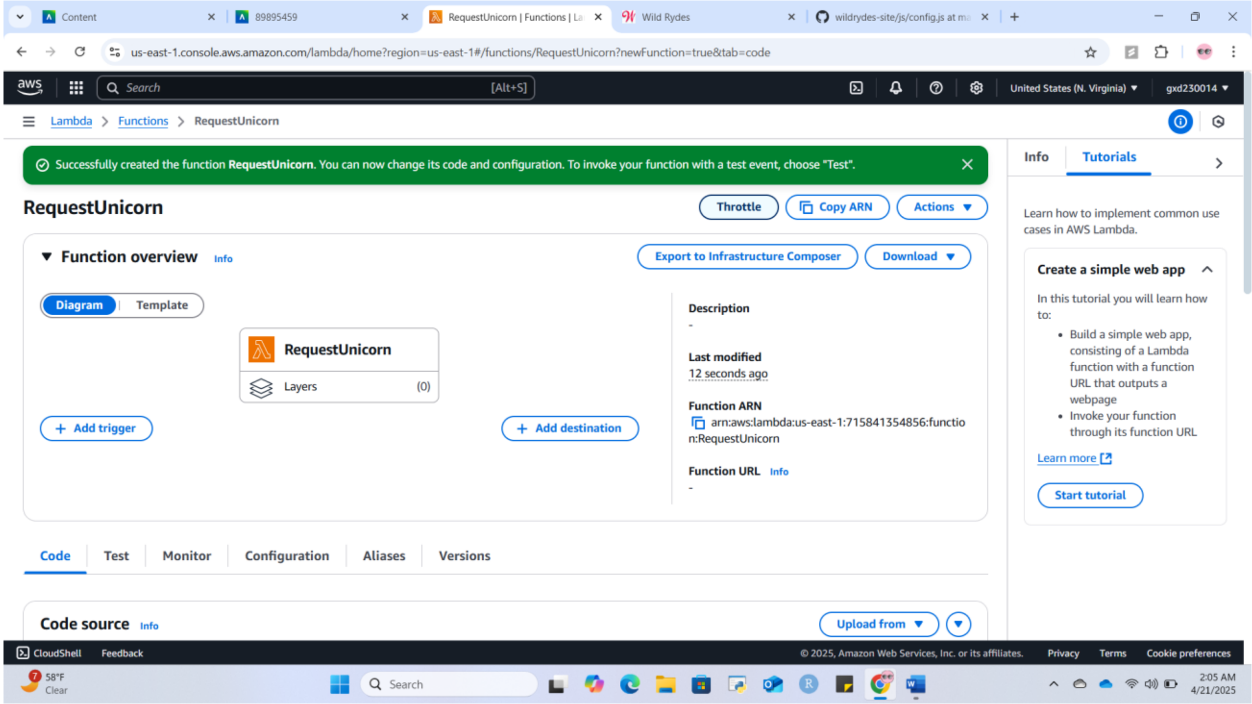
You can attach up to 10 managed policies.

Filter by Type

□	Policy name	Type	Attached entities
□	AWSLambdaBasicExecutionRole	AWS managed	1
□	DynamoDBWriteAccess	Customer inline	0

Permissions boundary (not set)

Created lambda Function



Successfully created the function RequestUnicorn. You can now change its code and configuration. To invoke your function with a test event, choose "Test".

RequestUnicorn

Function overview

Description
-

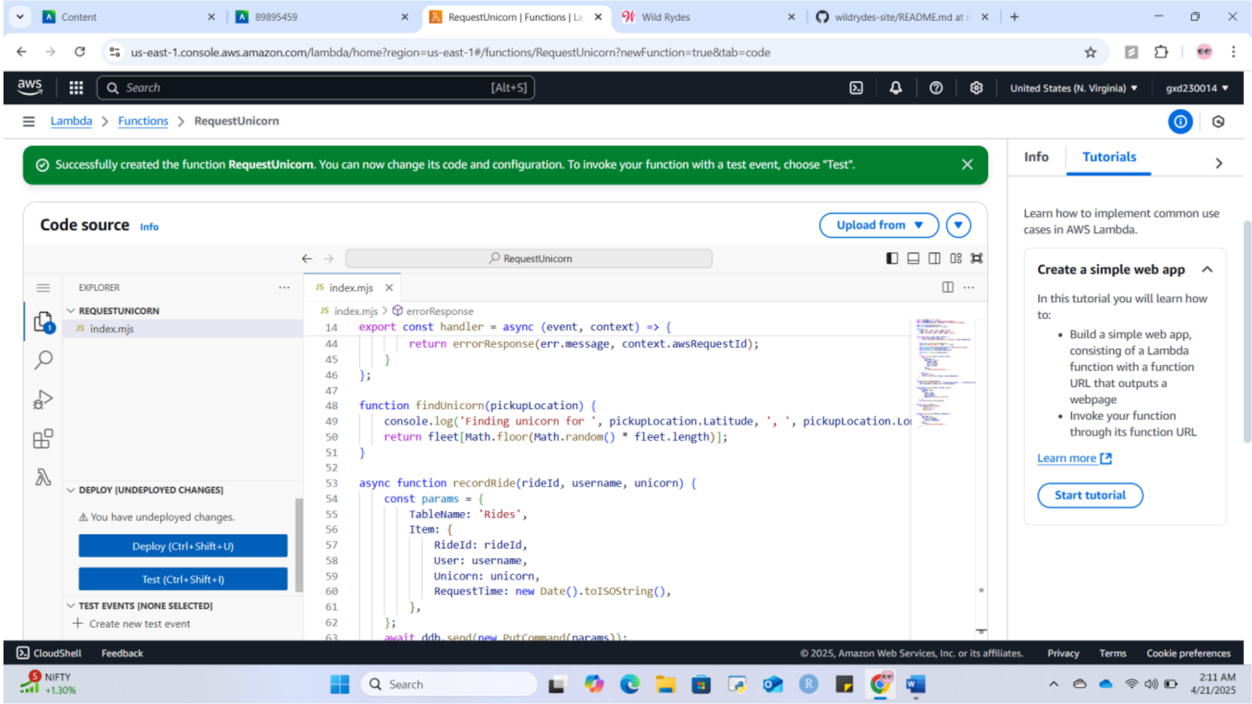
Last modified
12 seconds ago

Function ARN
arn:aws:lambda:us-east-1:715841354856:function:RequestUnicorn

Function URL
-

Lambda > Functions > RequestUnicorn
Throttle
Copy ARN
Actions
Export to Infrastructure Composer
Download
Diagram
Template
RequestUnicorn
Layers (0)
+ Add trigger
+ Add destination
Code
Test
Monitor
Configuration
Aliases
Versions
Code source
Upload from
Info
Tutorials
Learn how to implement common use cases in AWS Lambda.
Create a simple web app
In this tutorial you will learn how to:
Build a simple web app, consisting of a Lambda function with a function URL that outputs a webpage
Invoke your function through its function URL
Learn more
Start tutorial

Inserted the lambda code



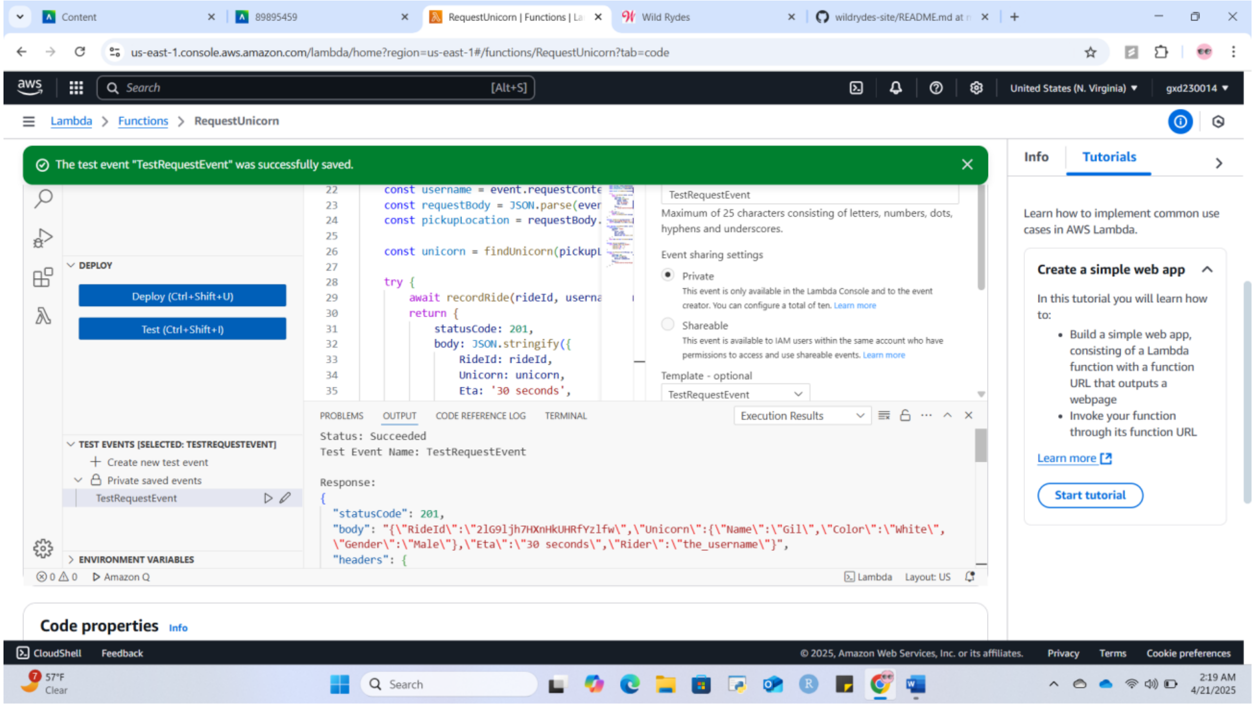
Successfully created the function RequestUnicorn. You can now change its code and configuration. To invoke your function with a test event, choose "Test".

```
export const handler = async (event, context) => {
            return errorResponse(err.message, context.awsRequestId);
        }
};

function findUnicorn(pickupLocation) {
    console.log('Finding unicorn for ', pickupLocation.Latitude, ', ', pickupLocation.Lo
    return fleet[Math.floor(Math.random() * fleet.length)];
}

async function recordRide(rideId, username, unicorn) {
    const params = {
        TableName: 'Rides',
        Item: {
            RideId: rideId,
            User: username,
            Unicorn: unicorn,
            RequestTime: new Date().toISOString(),
        },
    };
    await ddb.send(new PutCommand(params));
```

Created a test event and checked it, it was successful.



us-east-1.console.aws.amazon.com/lambda/home?region=us-east-1#/functions/RequestUnicorn?tab=code

Lambda > Functions > RequestUnicorn

The test event "TestRequestEvent" was successfully saved.

```
    const username = event.requestConte
    const requestBody = JSON.parse(ever
    const pickupLocation = requestBody.

    const unicorn = findUnicorn(pickupL

    try {
        await recordRide(rideId, userna
        return {
            statusCode: 201,
            body: JSON.stringify({
                RideId: rideId,
                Unicorn: unicorn,
                Eta: '30 seconds',
```

TestRequestEvent

Maximum of 25 characters consisting of letters, numbers, dots, hyphens and underscores.

Event sharing settings

● Private

This event is only available in the Lambda Console and to the event creator. You can configure a total of ten. Learn more

○ Shareable

This event is available to IAM users within the same account who have permissions to access and use shareable events. Learn more

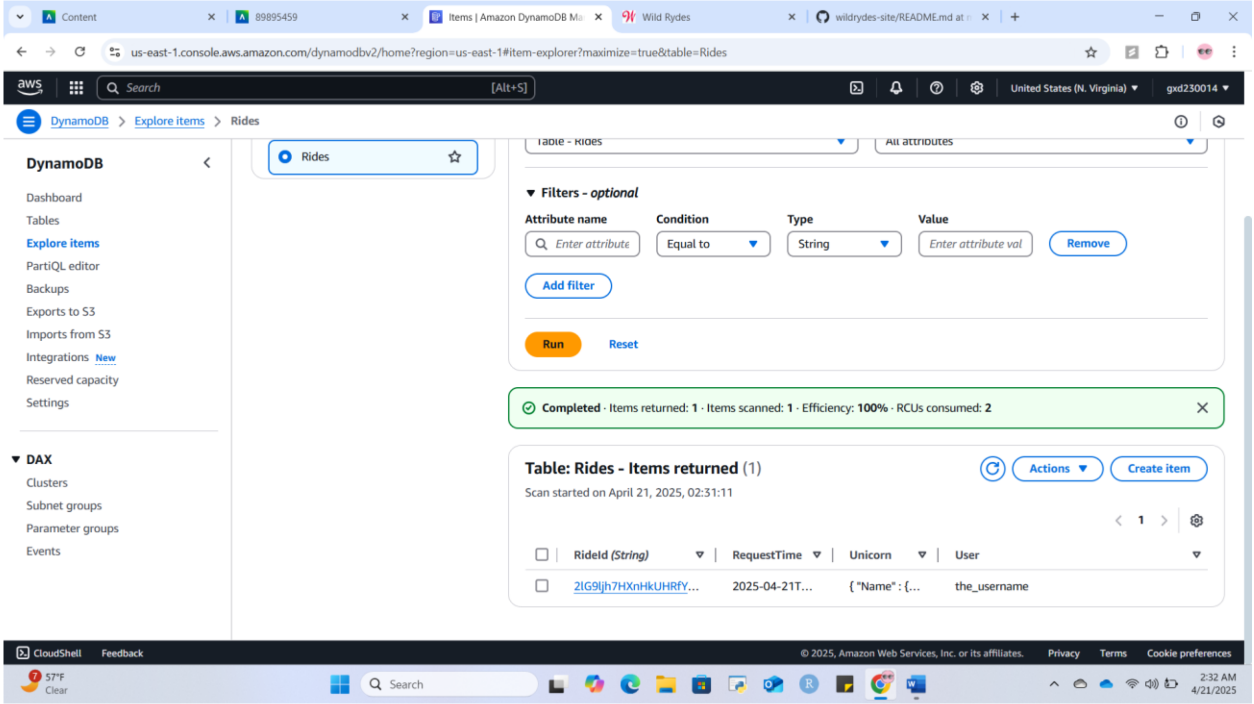
Template - optional: TestRequestEvent

TEST EVENTS [SELECTED: TESTREQUESTEVENT]

```
Status: Succeeded
Test Event Name: TestRequestEvent

Response:
{
  "statusCode": 201,
  "body": "{\"RideId\":\"2lG9ljh7HXnHkUHRfYzlfw\",\"Unicorn\":{\"Name\":\"Gil\",\"Color\":\"White\",
\"Gender\":\"Male\"},\"Eta\":\"30 seconds\",\"Rider\":\"the_username\"}",
  "headers": {
```

Checking the DynamoDB table to see wheater the items we created or not



us-east-1.console.aws.amazon.com/dynamodbv2/home?region=us-east-1#item-explorer?maximize=true&table=Rides

DynamoDB > Explore items > Rides

Table - Rides | All attributes

Filters - *optional*

Attribute name	Condition	Type	Value
Enter attribute	Equal to	String	Enter attribute val

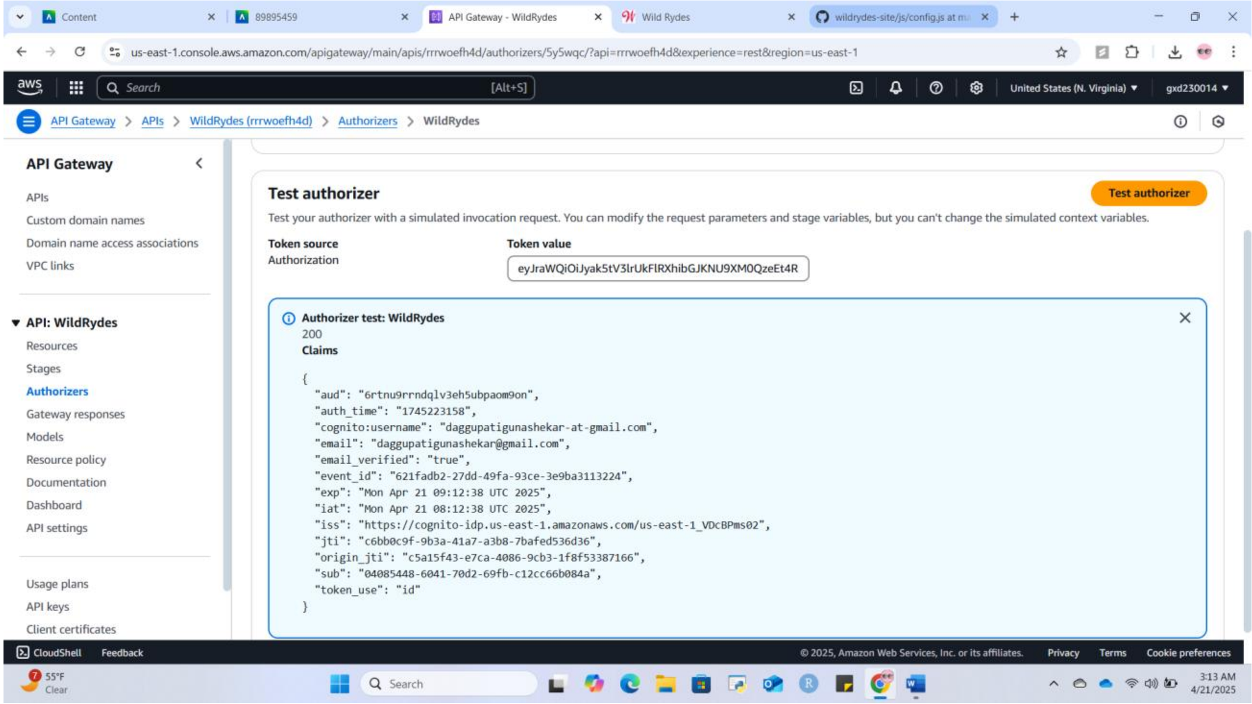
Completed · Items returned: **1** · Items scanned: **1** · Efficiency: **100%** · RCUs consumed: **2**

Table: Rides - Items returned (1)

Scan started on April 21, 2025, 02:31:11

□	RideId *(String)*	RequestTime	Unicorn	User
□	2lG9ljh7HXnHkUHRfY...	2025-04-21T...	{ "Name" : {...	the_username

It successfully passed



Test authorizer

Test authorizer

Test your authorizer with a simulated invocation request. You can modify the request parameters and stage variables, but you can't change the simulated context variables.

Token source	Token value
Authorization	eyJraWQiOiJyak5tV3lrUkFlRXhibGJKNU9XM0QzeEt4R

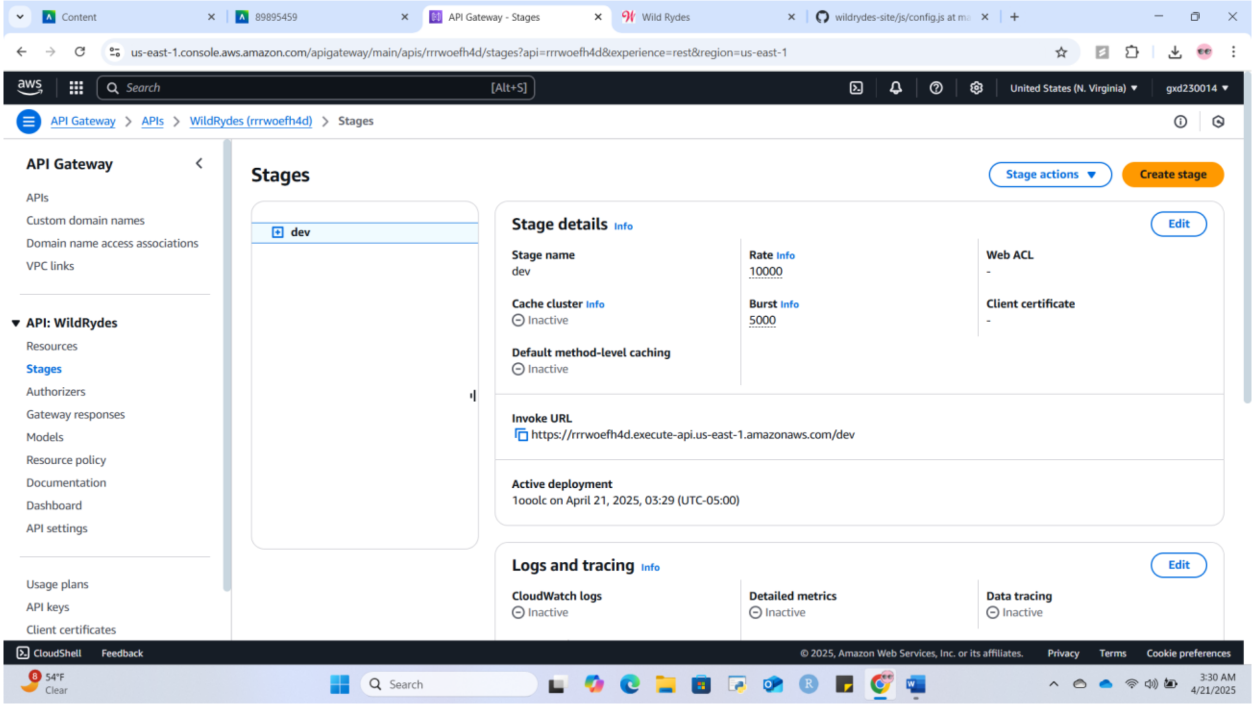
Authorizer test: WildRydes

200

Claims

```
{
  "aud": "6rtnu9rrndqlv3eh5ubpaom9on",
  "auth_time": "1745223158",
  "cognito:username": "daggupatigunashekar-at-gmail.com",
  "email": "daggupatigunashekar@gmail.com",
  "email_verified": "true",
  "event_id": "621fadb2-27dd-49fa-93ce-3e9ba3113224",
  "exp": "Mon Apr 21 09:12:38 UTC 2025",
  "iat": "Mon Apr 21 08:12:38 UTC 2025",
  "iss": "https://cognito-idp.us-east-1.amazonaws.com/us-east-1_VDcBPms02",
  "jti": "c6bb0c9f-9b3a-41a7-a3b8-7bafed536d36",
  "origin_jti": "c5a15f43-e7ca-4086-9cb3-1f8f53387166",
  "sub": "04085448-6041-70d2-69fb-c12cc66b084a",
  "token_use": "id"
}
```

Created an api named dev



Stages

⊞ dev

Stage details Info

Stage name	Rate Info	Web ACL
dev	10000	-
Cache cluster Info	**Burst** Info	**Client certificate**
⊖ Inactive	5000	-
Default method-level caching		
⊖ Inactive		

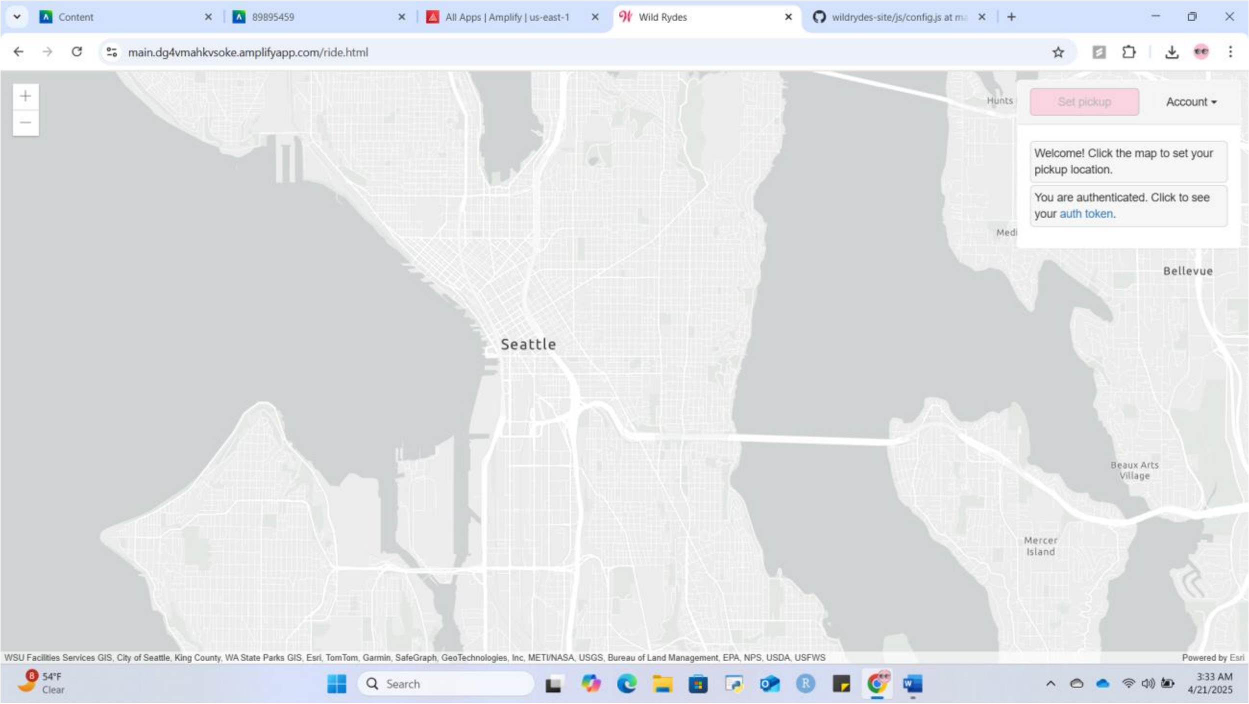
Invoke URL
https://rrrwoefh4d.execute-api.us-east-1.amazonaws.com/dev

Active deployment
1ooolc on April 21, 2025, 03:29 (UTC-05:00)

Logs and tracing Info

CloudWatch logs	Detailed metrics	Data tracing
⊖ Inactive	⊖ Inactive	⊖ Inactive

The page is working successfully logging me in and providing me service.

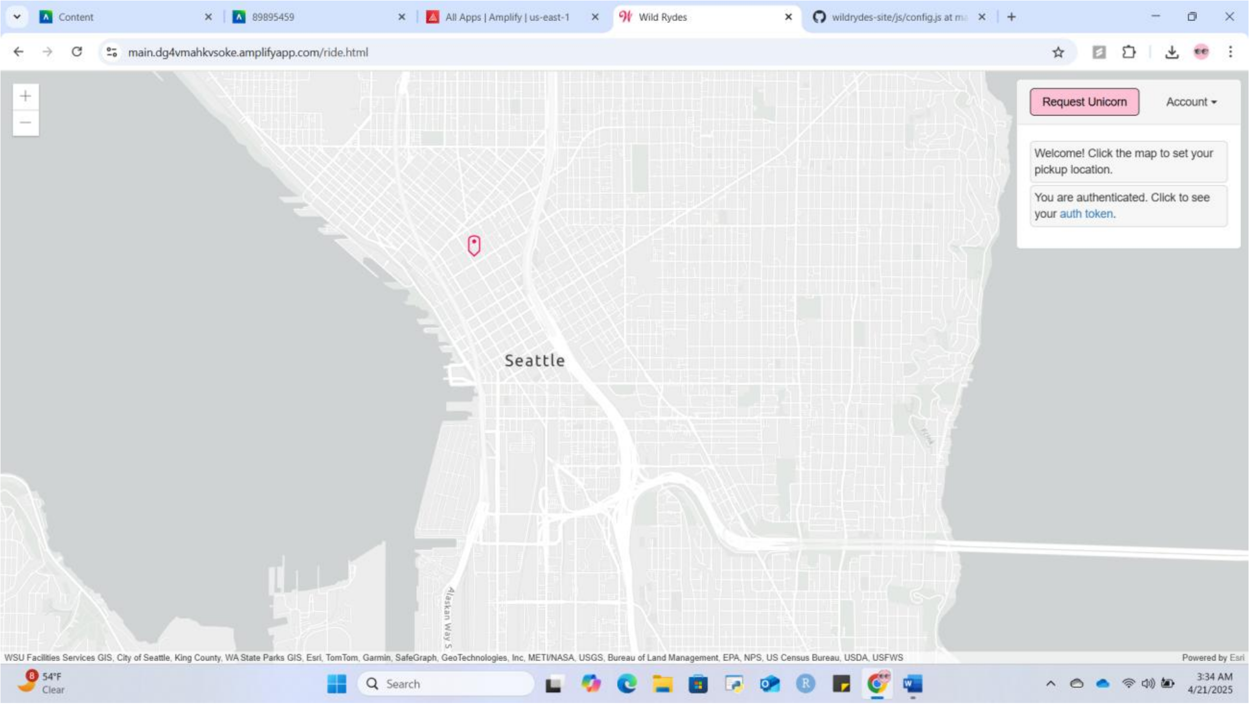


Welcome! Click the map to set your pickup location.

You are authenticated. Click to see your auth token.

Content
89895459
All Apps | Amplify | us-east-1
Wild Rydes
wildrydes-site/js/config.js at ma
main.dg4vmahkvsoke.amplifyapp.com/ride.html
Set pickup
Account
Seattle
Bellevue
Beaux Arts Village
Mercer Island
WSU Facilities Services GIS, City of Seattle, King County, WA State Parks GIS, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFWS
Powered by Esri
54°F
Clear
Search
3:33 AM
4/21/2025

I have selected a location and requested for the unicorn

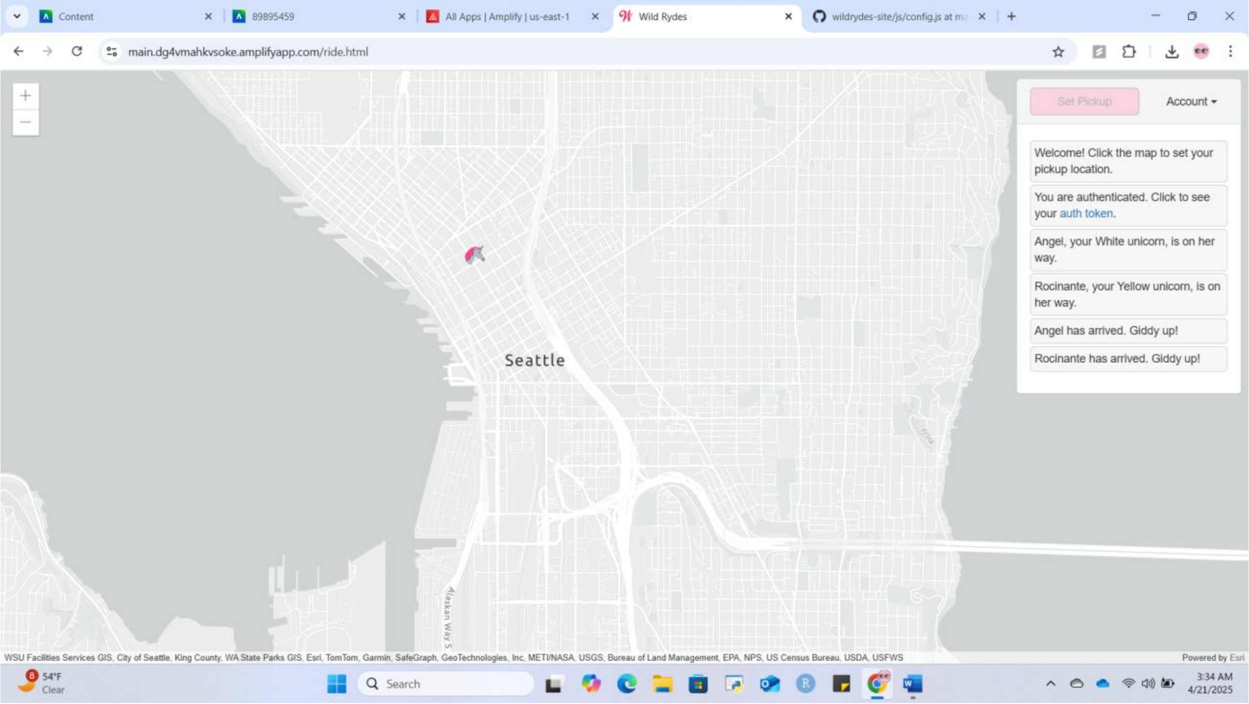


Welcome! Click the map to set your pickup location.

You are authenticated. Click to see your auth token.

Content
89895459
All Apps | Amplify | us-east-1
Wild Rydes
wildrydes-site/js/config.js at ma
main.dg4vmahkvsoke.amplifyapp.com/ride.html
Request Unicorn
Account
Seattle
Alaskan Way S
WSU Facilities Services GIS, City of Seattle, King County, WA State Parks GIS, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS
Powered by Esri
54°F
Clear
Search
3:34 AM
4/21/2025

The unicorn ride as arrived the angel!!!



main.dg4vmahkvsoke.amplifyapp.com/ride.html

Welcome! Click the map to set your pickup location.

You are authenticated. Click to see your auth token.

Angel, your White unicorn, is on her way.

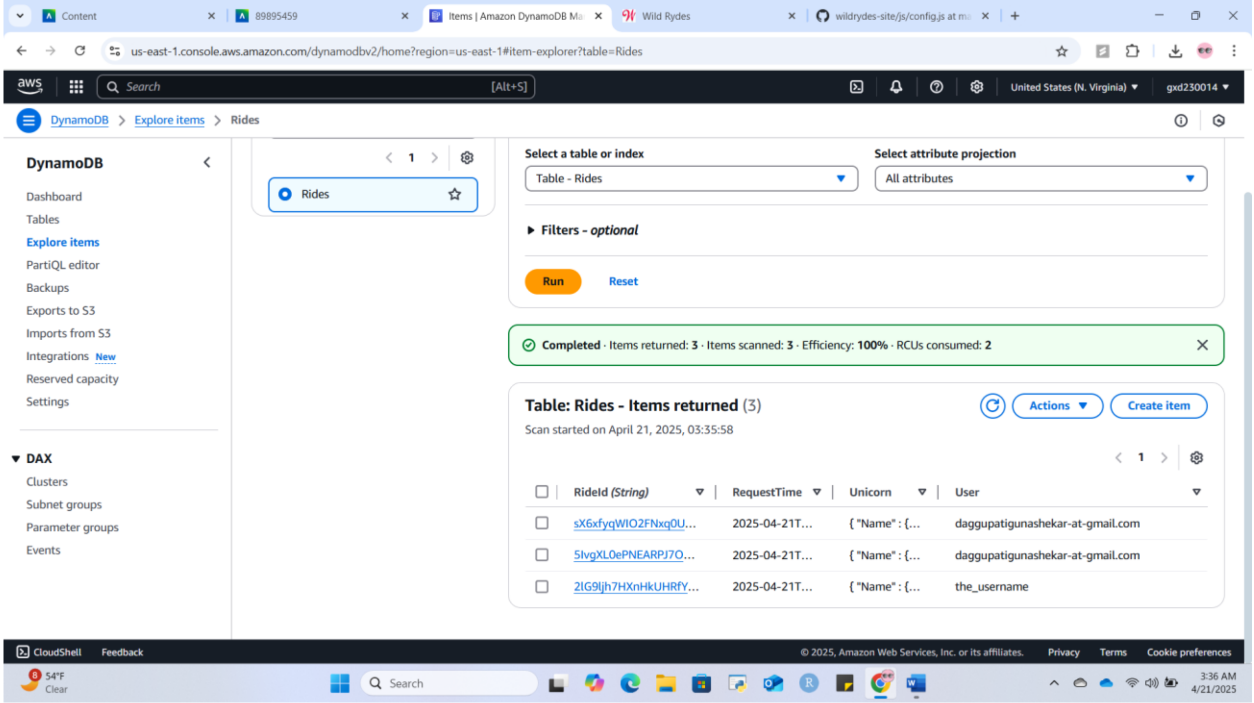
Rocinante, your Yellow unicorn, is on her way.

Angel has arrived. Giddy up!

Rocinante has arrived. Giddy up!

WSU Facilities Services GIS, City of Seattle, King County, WA State Parks GIS, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS — Powered by Esri

To checking my DynamoDB table weather the API calls are being registered and saved.



us-east-1.console.aws.amazon.com/dynamodbv2/home?region=us-east-1#item-explorer?table=Rides

Select a table or index: Table - Rides

Select attribute projection: All attributes

Filters - *optional*

Completed · Items returned: 3 · Items scanned: 3 · Efficiency: 100% · RCUs consumed: 2

Table: Rides - Items returned (3)

Scan started on April 21, 2025, 03:35:58

RideId *(String)*	RequestTime	Unicorn	User
sX6xfyqWIO2FNxq0U...	2025-04-21T...	{ "Name" : {...	daggupatigunashekar-at-gmail.com
5IvgXL0ePNEARPJ7O...	2025-04-21T...	{ "Name" : {...	daggupatigunashekar-at-gmail.com
2lG9ljh7HXnHkUHRfY...	2025-04-21T...	{ "Name" : {...	the_username

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