
AWS
re:Invent

DOP201

Serverless made easy from your IDE

Kyle Thomson

Senior Software Engineer, AWS IDE Toolkits

AWS

AWS re:Invent

© 2020, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Agenda

Review tools

Setup project / authenticate

Introduce application

Troubleshoot



AWS re:Invent

© 2020, Amazon Web Services, Inc. or its affiliates. All rights reserved.

Tools

AWS Toolkits

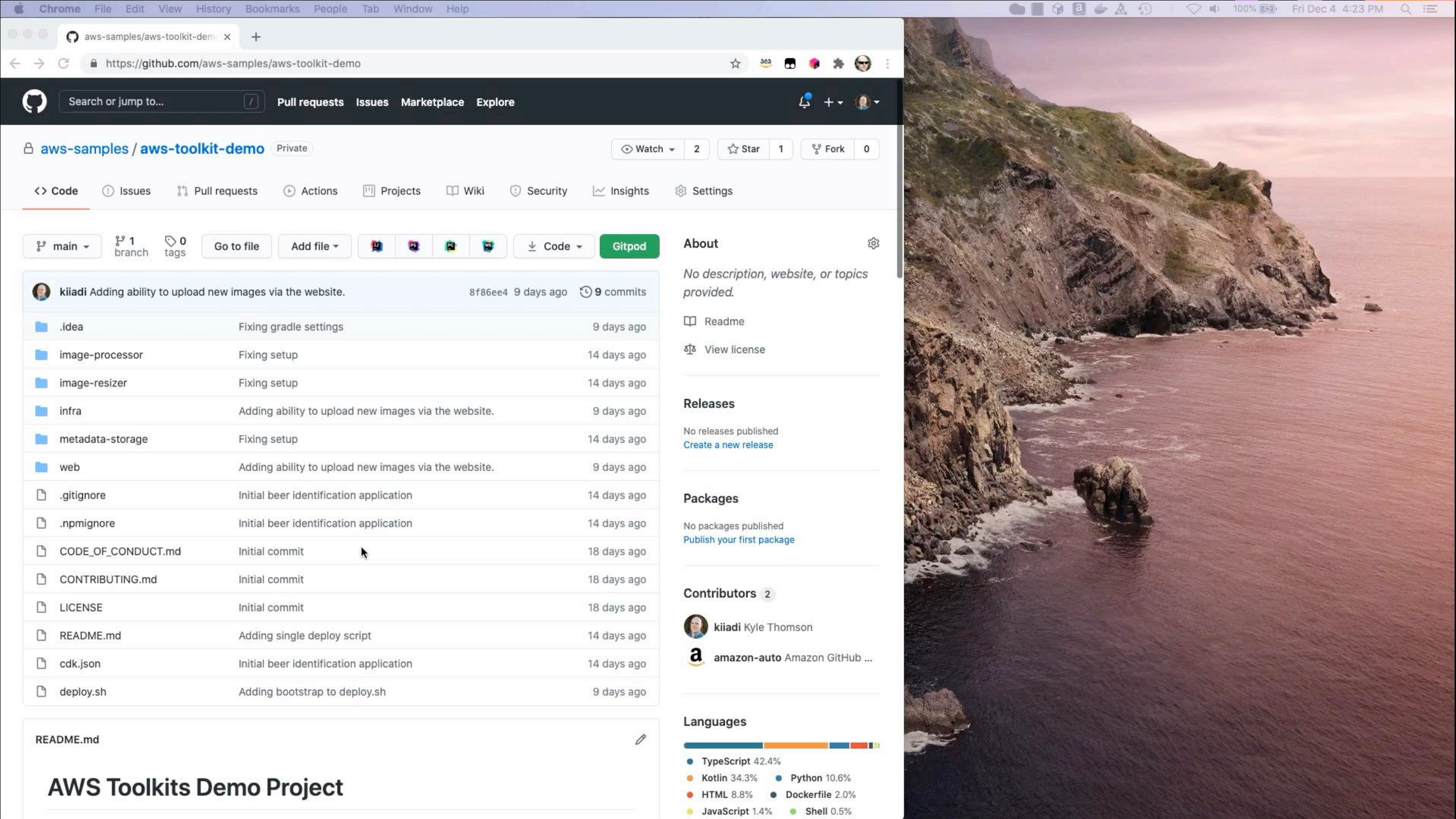
- AWS integrations in IDEs
  - JetBrains (such as IntelliJ and PyCharm): https://aws.amazon.com/intellij/
  - AWS Cloud9: https://aws.amazon.com/cloud9/
  - Visual Studio: https://aws.amazon.com/visualstudio/
  - Visual Studio Code: https://aws.amazon.com/visualstudiocode/

AWS SAM CLI

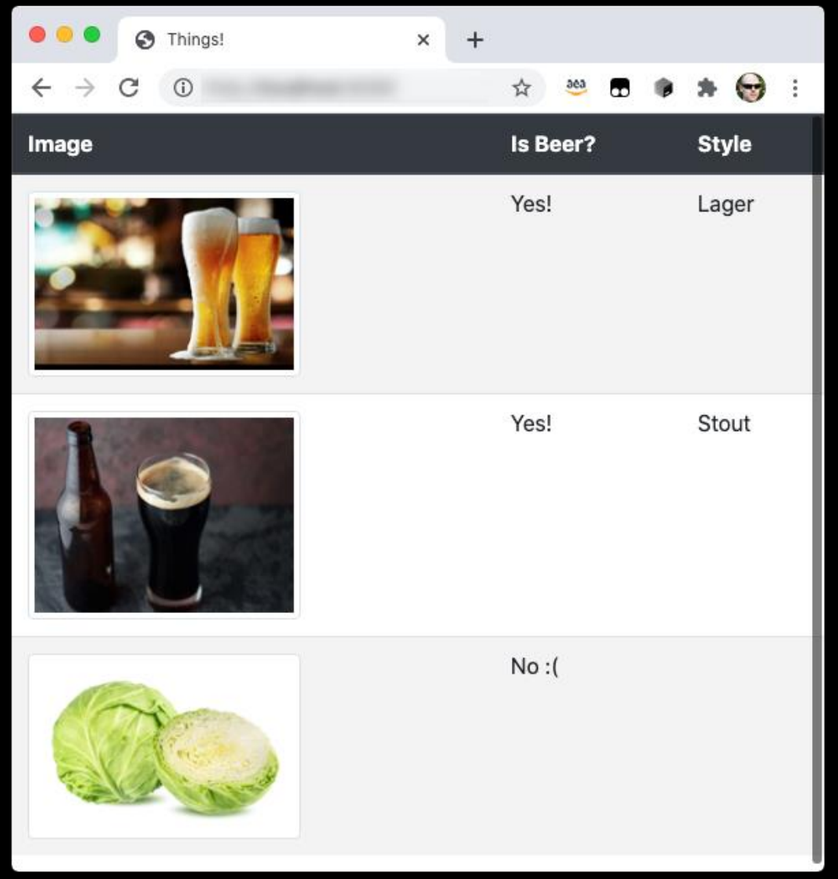
- Run build and run AWS Lambda functions locally
- https://aws.amazon.com/serverless/sam/

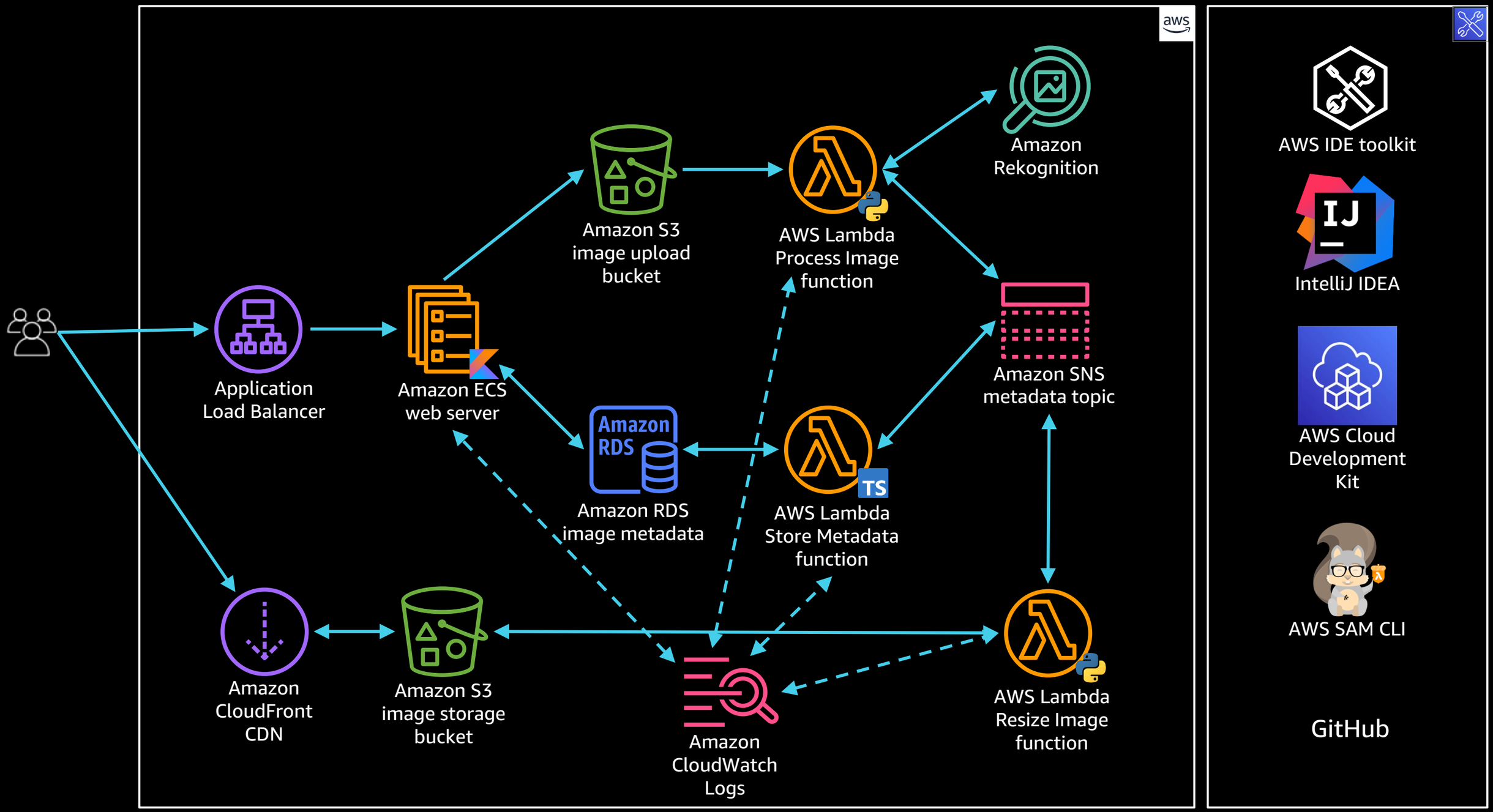
AWS CDK

- Type-safe infrastructure as code
- https://aws.amazon.com/cdk/


Chrome File Edit View History Bookmarks People Tab Window Help
Fri Dec 4 4:23 PM
aws-samples/aws-toolkit-demo
https://github.com/aws-samples/aws-toolkit-demo
Search or jump to...
Pull requests Issues Marketplace Explore
aws-samples / aws-toolkit-demo Private
Watch 2 Star 1 Fork 0
Code Issues Pull requests Actions Projects Wiki Security Insights Settings
main 1 branch 0 tags Go to file Add file Code Gitpod
kiiadi Adding ability to upload new images via the website. 8f86ee4 9 days ago 9 commits
.idea Fixing gradle settings 9 days ago
image-processor Fixing setup 14 days ago
image-resizer Fixing setup 14 days ago
infra Adding ability to upload new images via the website. 9 days ago
metadata-storage Fixing setup 14 days ago
web Adding ability to upload new images via the website. 9 days ago
.gitignore Initial beer identification application 14 days ago
.npmignore Initial beer identification application 14 days ago
CODE_OF_CONDUCT.md Initial commit 18 days ago
CONTRIBUTING.md Initial commit 18 days ago
LICENSE Initial commit 18 days ago
README.md Adding single deploy script 14 days ago
cdk.json Initial beer identification application 14 days ago
deploy.sh Adding bootstrap to deploy.sh 9 days ago
README.md
AWS Toolkits Demo Project
About
No description, website, or topics provided.
Readme
View license
Releases
No releases published
Create a new release
Packages
No packages published
Publish your first package
Contributors 2
kiiadi Kyle Thomson
amazon-auto Amazon GitHub ...
Languages
TypeScript 42.4%
Kotlin 34.3%
Python 10.6%
HTML 8.8%
Dockerfile 2.0%
JavaScript 1.4%
Shell 0.5%

Beer or not beer?




Amazon S3
image upload
bucket
AWS Lambda
Process Image
function
Amazon
Rekognition
Application
Load Balancer
Amazon ECS
web server
Amazon SNS
metadata topic
Amazon RDS
image metadata
AWS Lambda
Store Metadata
function
Amazon
CloudFront
CDN
Amazon S3
image storage
bucket
Amazon
CloudWatch
Logs
AWS Lambda
Resize Image
function
AWS IDE toolkit
IntelliJ IDEA
AWS Cloud
Development
Kit
AWS SAM CLI
GitHub

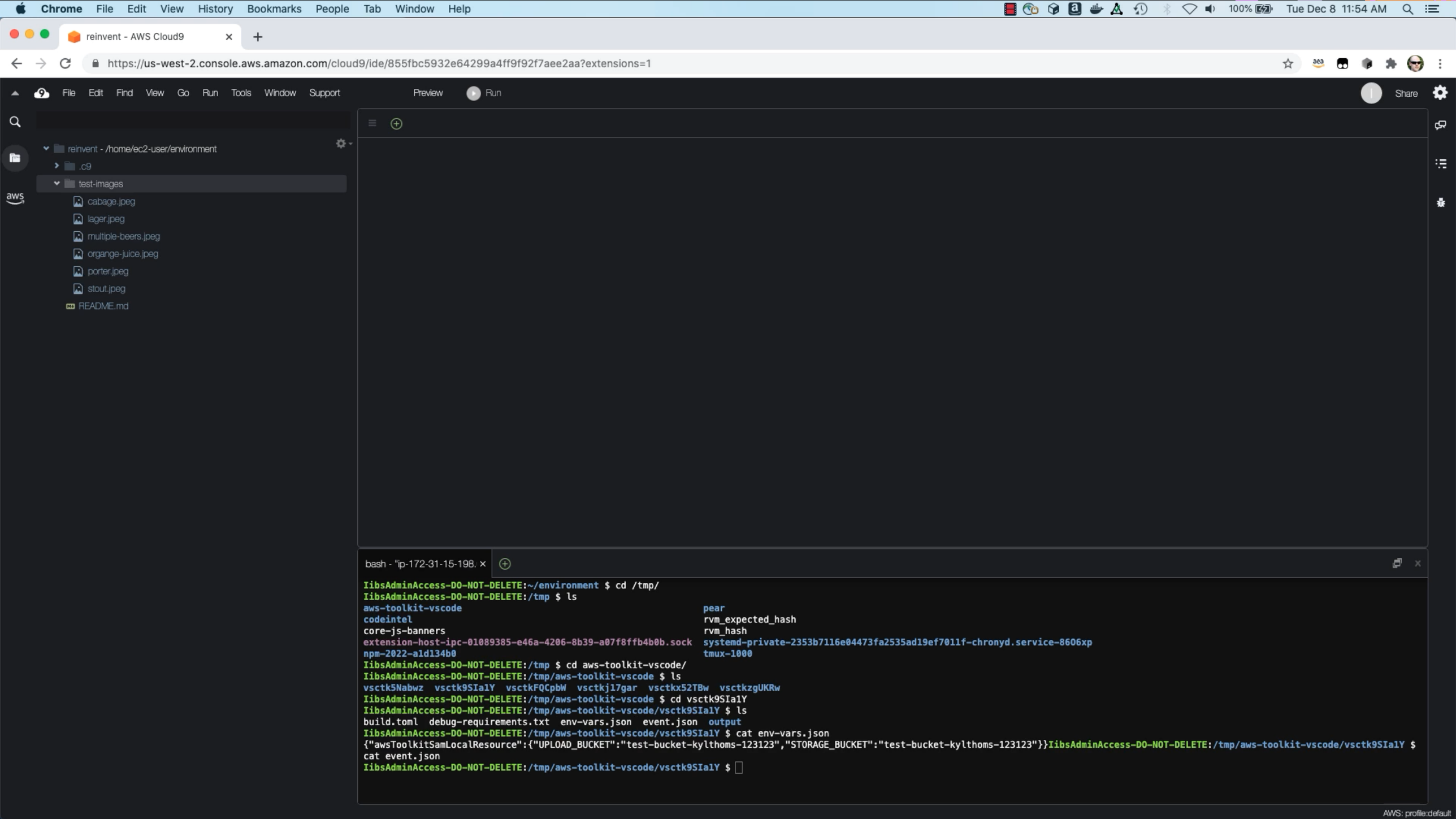
Recap – IDE Features

- SSO
- AWS Local terminal
- AWS CloudFormation Stack viewer
- Amazon CloudWatch Logs viewer / Insights query
- Amazon RDS Database integration
- Amazon S3 browser
- Amazon SQS Queue integration
- Local AWS Lambda debug
- AWS Lambda deployment

What about other IDEs?



© 2020, Amazon Web Services, Inc. or its affiliates. All rights reserved.


Chrome File Edit View History Bookmarks People Tab Window Help
Tue Dec 8 11:54 AM
reinvent - AWS Cloud9
https://us-west-2.console.aws.amazon.com/cloud9/ide/855fbc5932e64299a4ff9f92f7aee2aa?extensions=1
File Edit Find View Go Run Tools Window Support
Preview
Run
Share
reinvent - /home/ec2-user/environment
.c9
test-images
cabage.jpeg
lager.jpeg
multiple-beers.jpeg
organge-juice.jpeg
porter.jpeg
stout.jpeg
README.md
bash - "ip-172-31-15-198.
IibsAdminAccess-DO-NOT-DELETE:~/environment $ cd /tmp/
IibsAdminAccess-DO-NOT-DELETE:/tmp $ ls
aws-toolkit-vscode
codeintel
core-js-banners
extension-host-ipc-01089385-e46a-4206-8b39-a07f8ffb4b0b.sock
npm-2022-a1d134b0
pear
rvm_expected_hash
rvm_hash
systemd-private-2353b7116e04473fa2535ad19ef7011f-chronyd.service-8606xp
tmux-1000
IibsAdminAccess-DO-NOT-DELETE:/tmp $ cd aws-toolkit-vscode/
IibsAdminAccess-DO-NOT-DELETE:/tmp/aws-toolkit-vscode $ ls
vsctk5Nabwz vsctk9SIa1Y vsctkFQCpbW vsctkj17gar vsctkx52TBw vsctkzgUKRw
IibsAdminAccess-DO-NOT-DELETE:/tmp/aws-toolkit-vscode $ cd vsctk9SIa1Y
IibsAdminAccess-DO-NOT-DELETE:/tmp/aws-toolkit-vscode/vsctk9SIa1Y $ ls
build.toml debug-requirements.txt env-vars.json event.json output
IibsAdminAccess-DO-NOT-DELETE:/tmp/aws-toolkit-vscode/vsctk9SIa1Y $ cat env-vars.json
{"awsToolkitSamLocalResource":{"UPLOAD_BUCKET":"test-bucket-kylthoms-123123","STORAGE_BUCKET":"test-bucket-kylthoms-123123"}}IibsAdminAccess-DO-NOT-DELETE:/tmp/aws-toolkit-vscode/vsctk9SIa1Y $
cat event.json
IibsAdminAccess-DO-NOT-DELETE:/tmp/aws-toolkit-vscode/vsctk9SIa1Y $
AWS: profile:default

Recap – IDE Features

- SSO
- AWS Local terminal
- AWS CloudFormation Stack viewer
- Amazon CloudWatch Logs viewer / Insights query
- Amazon RDS Database integration
- Amazon S3 browser
- Amazon SQS Queue integration
- Local AWS Lambda debug
- AWS Lambda deployment
- Import AWS Lambda & debug in AWS Cloud9

Source

https://github.com/aws-samples/aws-toolkits-demo

Thank you!



AWS re:Invent

© 2020, Amazon Web Services, Inc. or its affiliates. All rights reserved.



Please complete the session survey

AWS re:Invent

© 2020, Amazon Web Services, Inc. or its affiliates. All rights reserved.