

1. Create an S3 bucket

Amazon S3 > Buckets > img-filter-mileidy-udagram-bucket

img-filter-mileidy-udagram-bucket [Info](#)

Objects

Properties

Permissions

Metrics

Management

Access Points

Bucket overview

AWS Region US East (N. Virginia) us-east-1	Amazon Resource Name (ARN) arn:aws:s3::img-filter-mileidy-udagram-bucket	Creation date February 12, 2023, 14:13:08 (UTC-03:00)
---	---	--

Bucket Versioning

Versioning is a means of keeping multiple variants of an object in the same bucket. You can use versioning to preserve, retrieve, and restore every version of every object stored in your Amazon S3 bucket. With versioning, you can easily recover unintended user actions and application failures. [Learn more](#)

Bucket policy

Edit

The bucket policy, written in JSON, provides access to the objects stored in the bucket. Bucket policies don't apply to objects owned by other accounts. [Learn more](#)

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "Stmt1625306057759",
      "Effect": "Allow",
      "Principal": "*",
      "Action": "s3:*",
      "Resource": "arn:aws:s3::img-filter-mileidy-udagram-bucket"
    }
  ]
}
```

Cross-origin resource sharing (CORS)

The CORS configuration, written in JSON, defines a way for client web applications that are loaded in one domain to interact with resources in a different domain. [Learn more](#)

```
{
  {
    "AllowedHeaders": [
      "*"
    ],
    "AllowedMethods": [
      "POST",
      "GET",
      "PUT",
      "DELETE",
      "HEAD"
    ],
    "AllowedOrigins": [
      "*"
    ],
    "ExposeHeaders": []
  }
}
```

RDS

Databases

postgres

postgres

Modify

Summary

DB Identifier postgres	CPU <div><div></div>15.15%</div>	Status ⌚ Backing-up	Class db.t3.micro
Role Instance	Current activity <div><div></div>0.00 sessions</div>	Engine PostgreSQL	Region & AZ us-east-1a

Connectivity & security

Monitoring

Logs & events

Configuration

Maintenance & backups

Tags

Connectivity & security

Endpoint & port Endpoint postgres.cyd16pcq9pcb.us-east-1.rds.amazonaws.com	Networking Availability Zone us-east-1a	Security VPC security groups default (sg-0281e0679a2d085eb) 🟢 Active
--	---	---

Backend:

```

mleidy@ideapad-mleidy:~/Documents/study/AWS/udacity-nanodegree-cloud-developer/monolith-to-microservice/cd0354-monolith-to-microservices-project$ source
  set env.sh
  cd udagram-api/
  # Install the package dependencies, and ignore the warnings
  npm install .
  npm run dev
  npm WARN udagram-api@2.0.0 No description
  npm WARN udagram-api@2.0.0 No repository field.
  npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@2.3.2 (node_modules/fsevents):
  npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@2.3.2: wanted {"os":"darwin","arch":"any"} (current: {"os":"linux","arch":
"x64"})

  audited 462 packages in 1.984s

  49 packages are looking for funding
    run `npm fund` for details

  found 38 vulnerabilities (1 low, 7 moderate, 26 high, 4 critical)
    run `npm audit fix` to fix them, or `npm audit` for details

> udagram-api@2.0.0 dev /home/mleidy/Documents/study/AWS/udacity-nanodegree-cloud-developer/monolith-to-microservice/cd0354-monolith-to-microservices-pro
ject/udagram-api
> ts-node-dev --respawn --transpile-only ./src/server.ts

[INFO] 15:24:16 ts-node-dev ver. 1.1.8 (using ts-node ver. 9.1.1, typescript ver. 3.9.10)
Initialize database connection...
Executing (default): CREATE TABLE IF NOT EXISTS "FeedItem" ("id" SERIAL , "caption" VARCHAR(255), "url" VARCHAR(255), "createdAt" TIMESTAMP WITH TIME ZO
NE, "updatedAt" TIMESTAMP WITH TIME ZONE, PRIMARY KEY ("id"));
Executing (default): SELECT i.relname AS name, ix.indisprimary AS primary, ix.indisunique AS unique, ix.indkey AS indkey, array_agg(a.attname) as column in
dexes, array_agg(a.attname) AS column_names, pg_get_indexdef(ix.indexrelid) AS definition FROM pg_class t, pg_class i, pg_index ix, pg_attribute a WHERE t
.oid = ix.indexrelid AND i.oid = ix.indexrelid AND a.attrelid = t.oid AND t.relkind = 'r' and t.relname = 'FeedItem' GROUP BY i.relname, ix.indexrelid, ix.i
ndisprimary, ix.indisunique, ix.indkey ORDER BY i.relname;
Executing (default): CREATE TABLE IF NOT EXISTS "User" ("email" VARCHAR(255), "passwordHash" VARCHAR(255), "createdAt" TIMESTAMP WITH TIME ZONE, "updated
At" TIMESTAMP WITH TIME ZONE, PRIMARY KEY ("email"));
Executing (default): SELECT i.relname AS name, ix.indisprimary AS primary, ix.indisunique AS unique, ix.indkey AS indkey, array_agg(a.attname) as column in
dexes, array_agg(a.attname) AS column_names, pg_get_indexdef(ix.indexrelid) AS definition FROM pg_class t, pg_class i, pg_index ix, pg_attribute a WHERE t
.oid = ix.indexrelid AND i.oid = ix.indexrelid AND a.attrelid = t.oid AND t.relkind = 'r' and t.relname = 'User' GROUP BY i.relname, ix.indexrelid, ix.indis
primary, ix.indisunique, ix.indkey ORDER BY i.relname;
server running http://localhost:8100
press CTRL+C to stop server

```

Frontend:

```

G:  ▼ TERMINAL
[ng] chunk {main} main.js, main.js.map (main) 84.3 kB [initial] [rendered]
[ng] chunk {md-transition-fea2bbfb-js} md-transition-fea2bbfb-js.js, md-transition-fea2bbfb-js.js.map (md-transition-fea2bbfb-js) 3.91 kB [rendered]
[ng] chunk {polyfills-es5} polyfills-es5.js, polyfills-es5.js.map (polyfills-es5) 316 kB [initial] [rendered]
[ng] chunk {runtime} runtime.js, runtime.js.map (runtime) 9.77 kB [entry] [rendered]
[ng] chunk {shadow-css-4889ae62-23996f3f-js} shadow-css-4889ae62-23996f3f-js.js, shadow-css-4889ae62-23996f3f-js.js.map (shadow-css-4889ae62-23996f3f-js) 15.7 kB [rendered]
[ng] chunk {status-tap-32c72c43-js} status-tap-32c72c43-js.js, status-tap-32c72c43-js.js.map (status-tap-32c72c43-js) 1.83 kB [rendered]
[ng] chunk {styles} styles.js, styles.js.map (styles) 101 kB [initial] [rendered]
[ng] chunk {swipe-back-35ad8e37-js} swipe-back-35ad8e37-js.js, swipe-back-35ad8e37-js.js.map (swipe-back-35ad8e37-js) 2.67 kB [rendered]
[ng] chunk {swiper-bundle-8bab85e6-js} swiper-bundle-8bab85e6-js.js, swiper-bundle-8bab85e6-js.js.map (swiper-bundle-8bab85e6-js) 213 kB [rendered]
[ng] chunk {tap-click-ca00ce7f-js} tap-click-ca00ce7f-js.js, tap-click-ca00ce7f-js.js.map (tap-click-ca00ce7f-js) 6.32 kB [rendered]
[ng] chunk {vendor} vendor.js, vendor.js.map (vendor) 4.99 MB [initial] [rendered]
[ng] Date: 2023-02-12T18:33:04.851Z - Hash: 165cbfa4ac340dfe5b4a - Time: 7023ms

[INFO] Development server running!
      Local: http://localhost:8100
      Use Ctrl+C to quit this process

[INFO] Browser window opened to http://localhost:8100!

[INFO] ... and 79 additional chunks
[ng] i 'wdm': Compiled successfully.

localhost:8100/home
Udagram
REGISTER LOG IN
CREATE A NEW POST
```

Part 2 - Run the project locally as a Microservice with docker


```

Frontend_1 | 2023/02/12 21:00:35 [notice] 1#1: start worker process 33
reverseproxy_1 | 10-listen-on-ipv6-by-default.sh: info: Enabled listen on IPv6 in /etc/nginx/conf.d/default.conf
reverseproxy_1 | /docker-entrypoint.sh: Launching /docker-entrypoint.d/20-envsubst-on-templates.sh
reverseproxy_1 | /docker-entrypoint.sh: Launching /docker-entrypoint.d/30-tune-worker-processes.sh
reverseproxy_1 | /docker-entrypoint.sh: Configuration complete; ready for start up
reverseproxy_1 | 2023/02/12 21:00:35 [notice] 1#1: using the 'epoll' event method
reverseproxy_1 | 2023/02/12 21:00:35 [notice] 1#1: nginx/1.23.3
reverseproxy_1 | 2023/02/12 21:00:35 [notice] 1#1: built by gcc 12.2.1 20220924 (Alpine 12.2.1_glt20220924-r4)
reverseproxy_1 | 2023/02/12 21:00:35 [notice] 1#1: OS: Linux 5.15.0-58-generic
reverseproxy_1 | 2023/02/12 21:00:35 [notice] 1#1: getrlimit(RLIMIT_NOFILE): 1048576:1048576
reverseproxy_1 | 2023/02/12 21:00:35 [notice] 1#1: start worker processes
reverseproxy_1 | 2023/02/12 21:00:35 [notice] 1#1: start worker process 30
backend-feed_1 | src/server.ts(9,25): error TS2305: Module '"./controllers/v0/model.index"' has no exported member 'V0_USER_MODELS'.
backend-feed_1 | npm ERR! code ELIFECYCLE
backend-feed_1 | npm ERR! errno 2
backend-feed_1 | npm ERR! udagram-api@2.0.0 prod: `tsc && node ./www/server.js`
backend-feed_1 | npm ERR! Exit status 2
backend-feed_1 | npm ERR!
backend-feed_1 | npm ERR! Failed at the udagram-api@2.0.0 prod script.
backend-feed_1 | npm ERR! This is probably not a problem with npm. There is likely additional logging output above.
backend-feed_1 |
backend-feed_1 | npm ERR! A complete log of this run can be found in:
backend-feed_1 | npm ERR! /root/.npm/_logs/2023-02-12T21_00_44_745Z-debug.log
cd0354-mono | to-microservices-project backend-feed_1 exited with code 2
backend-user_1 | Initialize database connection...
backend-user_1 | Executing (default): CREATE TABLE IF NOT EXISTS "User" ("email" VARCHAR(255), "passwordHash" VARCHAR(255), "createdAt"
TIMESTAMP WITH TIME ZONE, "updatedAt" TIMESTAMP WITH TIME ZONE, PRIMARY KEY ("email"));
backend-user_1 | Executing (default): SELECT i.relname AS name, ix.indisprimary AS primary, ix.indisunique AS unique, ix.indkey AS indkey
, array_agg(a.attname) AS column_indexes, array_agg(a.attname) AS column_names, pg_get_indexdef(ix.indexrelid) AS definition FROM pg_class
t, pg_class i, pg_index ix, pg_attribute a WHERE t.oid = ix.indrelid AND a.attrelid = t.oid AND t.relkind = 'r'
and i.relname = 'User' GROUP BY i.relname, ix.indexrelid, ix.indisprimary, ix.indisunique, ix.indkey ORDER BY i.relname;
backend-user_1 | server running http://localhost:8100
backend-user_1 | press CTRL+C to stop server
```

localhost:8100/home

Udagram

CREATE A NEW POST



edd

Amazon S3 > Buckets > img-filter-mileidy-udagram-bucket

img-filter-mileidy-udagram-bucket [Info](#)

Publicly accessible

Objects | Properties | Permissions | Metrics | Management | Access Points

Objects (1)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 Inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

Copy S3 URI Copy URL Download Open Delete Actions Create folder Upload

< 1

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	ash_pikachu.jpg	jpg	February 12, 2023, 18:45:52 (UTC-03:00)	23.5 KB	Standard

Part 3 - Set up Travis continuous integration pipeline

Search Docker Hub

Explore Repositories Organizations Help

Upgrade

mileidymaria

mileidymaria

Search by repository name

All Content

Create repository

mileidymaria / udagram-frontend

Contains: No content | Last pushed: a few seconds ago

Not Scanned

0

0

Public

mileidymaria / udagram-api-feed

Contains: No content | Last pushed: 4 minutes ago

Not Scanned

0

0

Public

mileidymaria / udagram-api-user

Contains: No content | Last pushed: 4 minutes ago

Not Scanned

0

0

Public

mileidymaria / reverseproxy

Contains: No content | Last pushed: 5 minutes ago

Not Scanned

0

0

Public

Travis CI

Dashboard

Changelog

Documentation

Help

If you have SSH keys defined for your repositories, please review their settings now. The new Share ssh keys with forks (PRs) repository setting are present and set to ON for repositories already in Travis CI in order to not break existing build setups. x

Search all repositories

Q

My Repositories

Running (0/0)

+

mileidymaria/cd0354-monolith-

Duration: -

mileidymaria/spring-data-jpa-

Duration: -

mileidymaria/gs-rest-service

Duration: -

mileidymaria/api-rest-estoque

Duration: -

mileidymaria/bpsols-aed

Duration: -

mileidymaria/mineracao

Duration: -

mileidymaria/CRUDLivroVue

Duration: -

mileidymaria / cd0354-monolith-to-microservices-project

build unknown

log scan passing

Current

Branches

Build History

Pull Requests

Log Scans

Settings

More options

≡

General

Build pushed branches

?

Limit concurrent jobs

?

Build pushed pull requests

?

User management

Security settings

The pull request (PR) settings are applicable for git-based pull requests from forks of this repository filed against this repository.
Sharing data with forks allows more comfortable collaboration when collaborators are forking from your repository, but builds initiated by the pull requests from forks against your base repository get access to your decrypted environmental variables and/or keys.
Not sharing secrets is more secure but makes it much less convenient to collaborate using forks.

Share encrypted env variables with forks (PRs) ?

Enable access to build job logs older than 365 days. When set to OFF logs older than 365 days are not available either via UI or APL. Please consider if there's a risk of confidential information being leaked prior to enabling access to old build job logs. If you want to modify the time threshold, please contact support.

Enable access to old build job logs. ?

Had troubles with TravisCI: I wasn't able to trigger builds. Put some screenshots below to show the errors.

Travis CI

Dashboard

Changelog

Documentation

Help

We are unable to start your build at this time. You exceeded the number of users allowed for your plan. Please review your plan details and follow the steps to resolution.

Search all repositories

Q

My Repositories

Running (0/0)

+

mileidymaria/cd0354-monolith-

Duration: -

mileidymaria/spring-data-jpa-

Duration: -

mileidymaria/gs-rest-service

Duration: -

mileidymaria/api-rest-estoque

Duration: -

mileidymaria/bpsols-aed

Duration: -

mileidymaria/mineracao

Duration: -

mileidymaria/CRUDLivroVue

Duration: -

mileidymaria / cd0354-monolith-to-microservices-project

build unknown

log scan passing

Current

Branches

Build History

Pull Requests

Log Scans

Requests

More options

≡

development

0438f2c

less than a minute ago

dockerhub

-

Owner mileidymaria user license exceeded.

development

0438f2c

2 minutes ago

test

-

Owner mileidymaria user license exceeded.

development

0438f2c

15 minutes ago

Refactor

-

Owner mileidymaria user license exceeded.

development

bc456e9

21 minutes ago

TRavisCI

-

Owner mileidymaria is not on a new pricing.

development

ee3e7e5

28 minutes ago

Refactor

-

Owner mileidymaria is not on a new pricing.

Travis CI

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Help

We are unable to start your build at this time. You exceeded the number of users allowed for your plan. Please review your plan details and follow the steps to resolution.

Search all repositories

Q

My Repositories

Running (0/0)

+

Current

Branches

Build History

Pull Requests

Log Scans

More options

≡

Users

0 Unique users who are running builds

A user is anyone who triggers the use of the compute resources you will be charged monthly for.

You exceeded the number of users allowed for your plan. Please switch to a bigger plan

Credits

Credits

OSS only credits

10000 available credits (purchase date: February 12, 2023 , valid until: March 12, 2023)

You have used 0 of 10000 credits



Consume paid credits for OSS

You can use paid credits both for build jobs run over public and private repositories. You can use 'OSS only' credits only for build jobs run over public repositories. If the 'Consume paid credits for OSS' is set to OFF, paid credits will not be used for build jobs

Part 4 - Container Orchestration with Kubernetes

The screenshot shows the AWS Management Console interface for an EKS cluster. The cluster name is 'mileidy-udagram'. The status is 'Active'. The Kubernetes version is 1.24. The provider is EKS. The API server endpoint is https://D385F0FE75C3C4F0835DB9C147CFA537.gr7.us-east-1.eks.amazonaws.com. The OpenID Connect provider URL is https://oidc.eks.us-east-1.amazonaws.com/id/D385F0FE75C3C4F0835DB9C147CFA537. The cluster IAM role ARN is arn:aws:iam::064150631770:role/eks-udagram. The cluster ARN is arn:aws:eks:us-east-1:064150631770:cluster/mileidy-udagram. The platform version is eks.4. The secrets encryption is off. The KMS key ID is -.

us-east-1.console.aws.amazon.com

Next step: Provision compute resources

Managed node group or creating a Fargate profile.

mileidy-udagram

Cluster info

Kubernetes version: 1.24

Status: Active

Provider: EKS

Overview | Resources | Compute | Networking | Add-ons | Authentication | Logging | Update history | Tags

Details

API server endpoint: https://D385F0FE75C3C4F0835DB9C147CFA537.gr7.us-east-1.eks.amazonaws.com

OpenID Connect provider URL: https://oidc.eks.us-east-1.amazonaws.com/id/D385F0FE75C3C4F0835DB9C147CFA537

Created: 14 minutes ago

Cluster ARN: arn:aws:eks:us-east-1:064150631770:cluster/mileidy-udagram

Platform version: eks.4

Secrets encryption

Secrets encryption: off

KMS key ID: -

roles

N. Virginia

voclabs/user2510263?ea3aff6c-6a88-11ed-97bd-871c754d680 @ 06...

UdagramNode is now being created. This process may take several minutes.

EKS > Clusters > mileidy-udagram > Node group: UdagramNode

UdagramNode

Edit

Delete

Node group configuration

Kubernetes version

1.24

AMI type

AL2_x86_64

Status

Creating

AMI release version

1.24.9-20230203

Instance types

m5.large

Disk size

20 GiB

Details

Nodes

Health issues

Kubernetes labels

Update config

Kubernetes taints

Update history

Tags

Details

Node group ARN

arn:aws:eks:us-east-1:064150631770:nodegroup/mileidy-udagram/UdagramNode/34C32415-d73c-aa2c-e45c-56e25b58d130

Created

a few seconds ago

Autoscaling group name

Node IAM role ARN

arn:aws:iam:064150631770:role/UdagramAmazonEKSNodeRole

Capacity type

On-Demand

Desired size

2 nodes

Minimum size

2 nodes

Maximum size

3 nodes

Subnets

subnet-0d5d68b9cb8f59cde
subnet-0008b461a644b7a97

Configure SSH access to nodes

off

```
service/frontend-service unchanged
deployment.apps/reverseproxy unchanged
service/reverseproxy unchanged
mileidy@ideapad-mileidy:~/Documents/study/AWS/udacity-nanodegree-cloud-developer/monolith-to-microservice/cd0354-monolith-to-microservices-project/k8s-deploy$ # Check the deployment names and their pod status
kubect get deployments
# Create a Service object that exposes the frontend deployment
# The command below will creates an external load balancer and assigns a fixed, external IP to the Service.
kubectl expose deployment frontend --type=LoadBalancer --name=publicfrontend
# Repeat the process for the *reverseproxy* deployment.
# Check name, ClusterIP, and External IP of all deployments
kubectl get services
kubectl get pods # It should show the STATUS as Running
NAME          READY   UP-TO-DATE   AVAILABLE   AGE
backend-feed   2/2     2             2           12h
backend-user   2/2     2             2           12h
frontend       2/2     2             2           12h
reverseproxy   2/2     2             2           12h
Error from server (AlreadyExists): services "publicfrontend" already exists
NAME          TYPE          CLUSTER-IP      EXTERNAL-IP      PORT(S)          AGE
backend-feed   ClusterIP      10.100.171.39    <none>            8080/TCP          12h
backend-user   ClusterIP      10.100.55.218    <none>            8080/TCP          12h
frontend-service ClusterIP      10.100.240.235    <none>            80/TCP            12h
kubernetes     ClusterIP      10.100.0.1        <none>            443/TCP           14h
publicfrontend LoadBalancer  10.100.62.8       a4c2a6ee11f44490843399bcc2ca517-1722375539.us-east-1.elb.amazonaws.com 80:31714/TCP      12h
reverseproxy   ClusterIP      10.100.102.254    <none>            8080/TCP          12h
NAME          READY   STATUS    RESTARTS   AGE
backend-feed-6ddd68c98c-7wr22  1/1     Running   0           33s
backend-feed-6ddd68c98c-vbgjl  1/1     Running   0           35s
backend-user-7768f7dd66-btdtn  1/1     Running   0           12h
backend-user-7768f7dd66-pftwb  1/1     Running   0           12h
frontend-865fdd9c-js4jq        1/1     Running   0           12h
frontend-865fdd9c-nlzwg        1/1     Running   0           12h
reverseproxy-776b45978c-grszp  1/1     Running   0           12h
reverseproxy-776b45978c-rqznj  1/1     Running   0           12h
mileidy@ideapad-mileidy:~/Documents/study/AWS/udacity-nanodegree-cloud-developer/monolith-to-microservice/cd0354-monolith-to-microservices-project/k8s-deploy$
```

```
mileidy@ideapad-mileidy:~/Documents/study/AWS/udacity-nanodegree-cloud-developer/monolith-to-microservice/cd0354-monolith-to-microservices-project/udontend$ kubectl set image deployment frontend frontend=[Dockerhub-username]/udagram-frontend:v6
mileidy@ideapad-mileidy:~/Documents/study/AWS/udacity-nanodegree-cloud-developer/monolith-to-microservice/cd0354-monolith-to-microservices-project/udontend$ # Kubernetes pods are deployed properly
kubectl get pods
# Kubernetes services are set up properly
kubectl describe services
# You have horizontal scaling set against CPU usage
kubectl describe hpa
NAME          READY   STATUS    RESTARTS   AGE
backend-feed-6ddd68c98c-7wr22  1/1     Running   0           14m
backend-feed-6ddd68c98c-vbgjl  1/1     Running   0           14m
backend-user-7768f7dd66-btdtn  1/1     Running   0           12h
backend-user-7768f7dd66-pftwb  1/1     Running   0           12h
frontend-5c5b9567d4-jvx7x      0/1     InvalidImageName  0           5m57s
frontend-865fdd9c-js4jq        1/1     Running   0           12h
frontend-865fdd9c-nlzwg        1/1     Running   0           12h
reverseproxy-776b45978c-grszp  1/1     Running   0           12h
reverseproxy-776b45978c-rqznj  1/1     Running   0           12h
Name:         backend-feed
Namespace:    default
Labels:       app=backend-feed
Annotations:  <none>
Selector:     app=backend-feed
Type:         ClusterIP
IP Family Policy: SingleStack
IP Families:  IPv4
IP:           10.100.171.39
IPs:          10.100.171.39
Port:         8080 8080/TCP
TargetPort:   8080/TCP
Endpoints:    172.31.31.201:8080,172.31.89.156:8080
Session Affinity: None
Events:       <none>
```

```
Name: backend-user
Namespace: default
Labels: app=backend-user
Annotations: <none>
Selector: app=backend-user
Type: ClusterIP
IP Family Policy: SingleStack
IP Families: IPv4
IP: 10.100.55.218
IPs: 10.100.55.218
Port: 8080 8080/TCP
TargetPort: 8080/TCP
Endpoints: 172.31.17.208:8080,172.31.90.108:8080
Session Affinity: None
Events: <none>
```

```
Name: frontend-service
Namespace: default
Labels: <none>
Annotations: <none>
Selector: app=frontend
Type: ClusterIP
IP Family Policy: SingleStack
IP Families: IPv4
IP: 10.100.240.235
IPs: 10.100.240.235
Port: 80 80/TCP
TargetPort: 80/TCP
Endpoints: 172.31.19.227:80,172.31.92.126:80
Session Affinity: None
Events: <none>
```

```
Name: kube-apiserver
Namespace: default
Labels: component=apiserver
provider=kubernetes
Annotations: <none>
Selector: <none>
Type: ClusterIP
IP Family Policy: SingleStack
IP Families: IPv4
IP: 10.100.0.1
IPs: 10.100.0.1
Port: https 443/TCP
TargetPort: 443/TCP
Endpoints: 172.31.23.158:443,172.31.89.251:443
Session Affinity: None
Events: <none>
```

```
Name: publicfrontend
Namespace: default
Labels: app=frontend
Annotations: <none>
Selector: app=frontend
Type: LoadBalancer
IP Family Policy: SingleStack
IP Families: IPv4
IP: 10.100.62.8
IPs: 10.100.62.8
LoadBalancer Ingress: a4c2a6ee11f44490843399bcc2ca517-1722375539.us-east-1.elb.amazonaws.com
Port: <unset> 80/TCP
TargetPort: 80/TCP
NodePort: <unset> 31714/TCP
Endpoints: 172.31.19.227:80,172.31.92.126:80
Session Affinity: None
External Traffic Policy: Cluster
Events: <none>
```

```
Name: reverseproxy
Namespace: default
Labels: <none>
Annotations: <none>
Selector: app=reverseproxy
Type: ClusterIP
IP Family Policy: SingleStack
IP Families: IPv4
IP: 10.100.102.254
IPs: 10.100.102.254
Port: 8080 8080/TCP
TargetPort: 8080/TCP
Endpoints: 172.31.19.27:8080,172.31.81.236:8080
Session Affinity: None
Events: <none>
No resources found in default namespace.
mileidy@ideapad-mileidy:~/Documents/study/AWS/udacity-nanodegree-cloud-developer/monolith-to-microservice/cd0354-monolith-to-microservices-project/udagram-fr
ontend$
```

Part 5. Logging

```
deployment.apps/backend-user configured
service/backend-user configured
deployment.apps/reverseproxy configured
service/reverseproxy unchanged
mileidy@ideapad-mileidy:~/Documents/study/AWS/udacity-nanodegree-cloud-developer/monolith-to-microservice/cd0354-monolith-to-microservices-project/k8s-deploys$ kubectl g
NAME READY STATUS RESTARTS AGE
backend-feed-7b65d74dbd-7dwv5 1/1 Running 0 2m25s
backend-feed-7b65d74dbd-p287h 1/1 Running 0 2m30s
backend-user-54b9648cdc-9qz44 1/1 Running 0 2m26s
backend-user-54b9648cdc-kxmb1 1/1 Running 0 2m25s
frontend-6574b0b58c-p5f2d 0/1 InvalidImageName 0 16m
frontend-865fddf9c-1s4jq 1/1 Running 0 12h
frontend-865fddf9c-nlwqg 1/1 Running 0 12h
reverseproxy-6574959636-ng5pd 1/1 Running 0 2m24s
reverseproxy-6574959636-szqn9 1/1 Running 0 2m21s
mileidy@ideapad-mileidy:~/Documents/study/AWS/udacity-nanodegree-cloud-developer/monolith-to-microservice/cd0354-monolith-to-microservices-project/k8s-deploys$
```



```
reverseproxy-85/4959826-zg2g 1/1 Running 0 2021s
• miledy@ideapad-miledy:~/Documents/study/MS/udacity-nanodegree-cloud-developer/monolith-to-microservice/c08354-monolith-to-microservices-project/k8s-deploy$ kubectl logs backend-user-54b9648cdc-kwmb1

> udagram-api@2.0.0 prod /usr/src/app
> tsc && node ./www/server.js

Initialize database connection...
Executing (default): CREATE TABLE IF NOT EXISTS "FeedItem" ("id" SERIAL , "caption" VARCHAR(255), "url" VARCHAR(255), "createdAt" TIMESTAMPT WITH TIME ZONE, "updatedAt" TIMESTAMPT WITH TIME ZONE, PRIMARY KEY ("id"));
Executing (default): SELECT i.relname AS name, ix.indisprimary AS primary, ix.indisunique AS unique, ix.indkey AS indkey, array_agg(a.attname) AS column_indexes, array_agg(a.attname) AS column_names, pg_get_indexdef(i
x.indexrelid) AS definition FROM pg_class t, pg_class i, pg_index ix, pg_attribute a WHERE t.oid = ix.indrelid AND i.oid = ix.indexrelid AND a.attrelid = t.oid AND t.relkind = 'r' and t.relname = 'FeedItem' GROUP BY
i.relname, ix.indexrelid, ix.indisprimary, ix.indisunique, ix.indkey ORDER BY i.relname;
server running http://localhost:8100
press CTRL+C to stop server
• miledy@ideapad-miledy:~/Documents/study/MS/udacity-nanodegree-cloud-developer/monolith-to-microservice/c08354-monolith-to-microservices-project/k8s-deploy$

• miledy@ideapad-miledy:~/Documents/study/MS/udacity-nanodegree-cloud-developer/monolith-to-microservice/c08354-monolith-to-microservices-project/k8s-deploy$ kubectl logs frontend-865fd99c-nlwag

/docker-entrypoint.sh: /docker-entrypoint.d/ is not empty, will attempt to perform configuration
/docker-entrypoint.sh: Looking for shell scripts in /docker-entrypoint.d/
/docker-entrypoint.sh: Launching /docker-entrypoint.d/10-listen-on-ipv6-by-default.sh
10-listen-on-ipv6-by-default.sh: info: Getting the checksum of /etc/nginx/conf.d/default.conf
10-listen-on-ipv6-by-default.sh: info: Enabled listen on IPv6 in /etc/nginx/conf.d/default.conf
/docker-entrypoint.sh: Launching /docker-entrypoint.d/20-envsubst-on-templates.sh
/docker-entrypoint.sh: Launching /docker-entrypoint.d/30-time-worker-processes.sh
/docker-entrypoint.sh: Configuration complete; ready for start up
2023/02/13 12:51:58 [notice] [pid: using the "epoll" event method
2023/02/13 12:51:58 [notice] [pid: nginx/1.23.3
2023/02/13 12:51:58 [notice] [pid: built by gcc 12.2.1 20220924 (Alpine 12.2.1 git20220924-r4)
2023/02/13 12:51:58 [notice] [pid: OS: Linux 5.4.228-131.415.amzn2.x86_64
2023/02/13 12:51:58 [notice] [pid: getrlimit(RLIMIT_NOFILE): 1048576:1048576
2023/02/13 12:51:58 [notice] [pid: start worker processes
2023/02/13 12:51:58 [notice] [pid: start worker process 30
2023/02/13 12:51:58 [notice] [pid: start worker process 31

x.indexrelid) AS definition FROM pg_class t, pg_class i, pg_index ix, pg_attribute a WHERE t.oid = ix.indrelid AND i.oid = ix.indexrelid AND a.attrelid = t.oid AND t.relkind = 'r' and t.relname = 'FeedItem' GROUP BY
i.relname, ix.indexrelid, ix.indisprimary, ix.indisunique, ix.indkey ORDER BY i.relname;
server running http://localhost:8100
press CTRL+C to stop server
• miledy@ideapad-miledy:~/Documents/study/MS/udacity-nanodegree-cloud-developer/monolith-to-microservice/c08354-monolith-to-microservices-project/k8s-deploy$ kubectl logs backend-feed-7b65d74dbd-p287h

> udagram-api@2.0.0 prod /usr/src/app
> tsc && node ./www/server.js

Initialize database connection...
Executing (default): CREATE TABLE IF NOT EXISTS "FeedItem" ("id" SERIAL , "caption" VARCHAR(255), "url" VARCHAR(255), "createdAt" TIMESTAMPT WITH TIME ZONE, "updatedAt" TIMESTAMPT WITH TIME ZONE, PRIMARY KEY ("id"));
Executing (default): SELECT i.relname AS name, ix.indisprimary AS primary, ix.indisunique AS unique, ix.indkey AS indkey, array_agg(a.attname) AS column_indexes, array_agg(a.attname) AS column_names, pg_get_indexdef(i
x.indexrelid) AS definition FROM pg_class t, pg_class i, pg_index ix, pg_attribute a WHERE t.oid = ix.indrelid AND i.oid = ix.indexrelid AND a.attrelid = t.oid AND t.relkind = 'r' and t.relname = 'FeedItem' GROUP BY
i.relname, ix.indexrelid, ix.indisprimary, ix.indisunique, ix.indkey ORDER BY i.relname;
server running http://localhost:8100
press CTRL+C to stop server
• miledy@ideapad-miledy:~/Documents/study/MS/udacity-nanodegree-cloud-developer/monolith-to-microservice/c08354-monolith-to-microservices-project/k8s-deploy$
```