Screenshots for the Udacity Udagram Refactor Application Project:

Building Blocks:

**udacity-c3-restapi-feed service:**

HTHIAGAR-M-92Y3:udacity-c3-restapi-feed hthiagar$ ls -al

total 96

drwxr-xr-x 12 hthiagar staff 384 Mar 23 13:55 .

drwxr-xr-x 7 hthiagar staff 224 Mar 16 11:46 ..

-rw-r--r-- 1 hthiagar staff 13 Mar 23 13:55 .dockerignore

-rw-r--r-- 1 hthiagar staff 581 Mar 16 11:46 .gitignore

-rw-r--r-- 1 hthiagar staff 16 Mar 16 11:46 .npmrc

-rw-r--r-- 1 hthiagar staff 297 Mar 16 11:46 Dockerfile

drwxr-xr-x 5 hthiagar staff 160 Mar 16 11:46 mock

-rw-r--r--@ 1 hthiagar staff 1299 Mar 23 13:55 package.json

drwxr-xr-x 8 hthiagar staff 256 Mar 16 11:46 src

-rw-r--r-- 1 hthiagar staff 5516 Mar 16 11:46 tsconfig.json

-rw-r--r-- 1 hthiagar staff 3191 Mar 16 11:46 tslint.json

-rw-r--r-- 1 hthiagar staff 14811 Mar 16 11:46 udacity-c2-restapi.postman\_collection.json

HTHIAGAR-M-92Y3:udacity-c3-restapi-feed hthiagar$ npm i

npm WARN deprecated mkdirp@0.5.4: Legacy versions of mkdirp are no longer supported. Please update to mkdirp 1.x. (Note that the API surface has changed to use Promises in 1.x.)

npm WARN deprecated mkdirp@0.5.1: Legacy versions of mkdirp are no longer supported. Please update to mkdirp 1.x. (Note that the API surface has changed to use Promises in 1.x.)

npm notice created a lockfile as package-lock.json. You should commit this file.

npm WARN udacity-c2-restapi@1.0.0 No description

npm WARN udacity-c2-restapi@1.0.0 No repository field.

added 330 packages from 908 contributors and audited 675 packages in 9.681s

16 packages are looking for funding

run `npm fund` for details

found 3 **low** severity vulnerabilities

run `npm audit fix` to fix them, or `npm audit` for details

HTHIAGAR-M-92Y3:udacity-c3-restapi-feed hthiagar$

HTHIAGAR-M-92Y3:udacity-c3-restapi-feed hthiagar$ npm run dev

> udacity-c2-restapi@1.0.0 dev /Users/hthiagar/Documents/GitHub/cloud-developer/nd9990-c3-microservices-v1/Udacity-Refactor-Udagram-App-Project/exercise/udacity-c3-restapi-feed

> ts-node-dev --respawn --transpileOnly ./src/server.ts

Using ts-node version 8.8.1, typescript version 3.8.3

Executing (default): CREATE TABLE IF NOT EXISTS "FeedItems" ("id" SERIAL , "caption" VARCHAR(255), "url" VARCHAR(255), "createdAt" TIMESTAMP WITH TIME ZONE, "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.attnum) 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 i.oid = ix.indexrelid AND a.attrelid = t.oid AND t.relkind = 'r' and t.relname = 'FeedItems' 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

**udacity-c3-restapi-user Service:**

HTHIAGAR-M-92Y3:udacity-c3-restapi-user hthiagar$ pwd

/Users/hthiagar/Documents/GitHub/cloud-developer/nd9990-c3-microservices-v1/Udacity-Refactor-Udagram-App-Project/exercise/udacity-c3-restapi-user

HTHIAGAR-M-92Y3:udacity-c3-restapi-user hthiagar$ ls -lrt

total 72

-rw-r--r-- 1 hthiagar staff 297 Mar 16 11:46 Dockerfile

drwxr-xr-x 5 hthiagar staff 160 Mar 16 11:46 mock

drwxr-xr-x 8 hthiagar staff 256 Mar 16 11:46 src

-rw-r--r-- 1 hthiagar staff 5516 Mar 16 11:46 tsconfig.json

-rw-r--r-- 1 hthiagar staff 3191 Mar 16 11:46 tslint.json

-rw-r--r-- 1 hthiagar staff 14811 Mar 16 11:46 udacity-c2-restapi.postman\_collection.json

-rw-r--r--@ 1 hthiagar staff 1413 Mar 23 14:29 package.json

HTHIAGAR-M-92Y3:udacity-c3-restapi-user hthiagar$ npm i

npm WARN deprecated mkdirp@0.5.4: Legacy versions of mkdirp are no longer supported. Please update to mkdirp 1.x. (Note that the API surface has changed to use Promises in 1.x.)

npm WARN deprecated mkdirp@0.5.1: Legacy versions of mkdirp are no longer supported. Please update to mkdirp 1.x. (Note that the API surface has changed to use Promises in 1.x.)

> bcrypt@3.0.8 install /Users/hthiagar/Documents/GitHub/cloud-developer/nd9990-c3-microservices-v1/Udacity-Refactor-Udagram-App-Project/exercise/udacity-c3-restapi-user/node\_modules/bcrypt

> node-pre-gyp install --fallback-to-build

node-pre-gyp WARN Using needle for node-pre-gyp https download

[bcrypt] Success: "/Users/hthiagar/Documents/GitHub/cloud-developer/nd9990-c3-microservices-v1/Udacity-Refactor-Udagram-App-Project/exercise/udacity-c3-restapi-user/node\_modules/bcrypt/lib/binding/bcrypt\_lib.node" is installed via remote

npm notice created a lockfile as package-lock.json. You should commit this file.

npm WARN udacity-c2-restapi@1.0.0 No description

npm WARN udacity-c2-restapi@1.0.0 No repository field.

added 373 packages from 953 contributors and audited 779 packages in 11.148s

16 packages are looking for funding

run `npm fund` for details

found 1 **low** severity vulnerability

run `npm audit fix` to fix them, or `npm audit` for details

HTHIAGAR-M-92Y3:udacity-c3-restapi-user hthiagar$

HTHIAGAR-M-92Y3:udacity-c3-restapi-user hthiagar$ npm run dev

> udacity-c2-restapi@1.0.0 dev /Users/hthiagar/Documents/GitHub/cloud-developer/nd9990-c3-microservices-v1/Udacity-Refactor-Udagram-App-Project/exercise/udacity-c3-restapi-user

> ts-node-dev --respawn --transpileOnly ./src/server.ts

Using ts-node version 8.8.1, typescript version 3.8.3

Executing (default): CREATE TABLE IF NOT EXISTS "Users" ("email" VARCHAR(255) , "password\_hash" VARCHAR(255), "createdAt" TIMESTAMP WITH TIME ZONE, "updatedAt" 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.attnum) 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 i.oid = ix.indexrelid AND a.attrelid = t.oid AND t.relkind = 'r' and t.relname = 'Users' 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

**udacity-c3-frontend service:**

HTHIAGAR-M-92Y3:udacity-c3-frontend hthiagar$ npm i

npm WARN deprecated @angular/http@7.2.16: Package no longer supported. Use @angular/common instead, see https://angular.io/guide/deprecations#angularhttp

npm WARN deprecated core-js@2.6.11: core-js@<3 is no longer maintained and not recommended for usage due to the number of issues. Please, upgrade your dependencies to the actual version of core-js@3.

npm WARN deprecated mkdirp@0.5.4: Legacy versions of mkdirp are no longer supported. Please update to mkdirp 1.x. (Note that the API surface has changed to use Promises in 1.x.)

npm WARN deprecated request@2.88.2: request has been deprecated, see https://github.com/request/request/issues/3142

npm WARN deprecated circular-json@0.5.9: CircularJSON is in maintenance only, flatted is its successor.

> fsevents@1.2.12 install /Users/hthiagar/Documents/GitHub/cloud-developer/nd9990-c3-microservices-v1/Udacity-Refactor-Udagram-App-Project/exercise/udacity-c3-frontend/node\_modules/fsevents

> node-gyp rebuild

SOLINK\_MODULE(target) Release/.node

CXX(target) Release/obj.target/fse/fsevents.o

SOLINK\_MODULE(target) Release/fse.node

> node-sass@4.12.0 install /Users/hthiagar/Documents/GitHub/cloud-developer/nd9990-c3-microservices-v1/Udacity-Refactor-Udagram-App-Project/exercise/udacity-c3-frontend/node\_modules/node-sass

> node scripts/install.js

Cached binary found at /Users/hthiagar/.npm/node-sass/4.12.0/darwin-x64-72\_binding.node

> core-js@2.6.11 postinstall /Users/hthiagar/Documents/GitHub/cloud-developer/nd9990-c3-microservices-v1/Udacity-Refactor-Udagram-App-Project/exercise/udacity-c3-frontend/node\_modules/core-js

> node -e "try{require('./postinstall')}catch(e){}"

Thank you for using core-js ( https://github.com/zloirock/core-js ) for polyfilling JavaScript standard library!

The project needs your help! Please consider supporting of core-js on Open Collective or Patreon:

> https://opencollective.com/core-js

> https://www.patreon.com/zloirock

Also, the author of core-js ( https://github.com/zloirock ) is looking for a good job -)

> node-sass@4.12.0 postinstall /Users/hthiagar/Documents/GitHub/cloud-developer/nd9990-c3-microservices-v1/Udacity-Refactor-Udagram-App-Project/exercise/udacity-c3-frontend/node\_modules/node-sass

> node scripts/build.js

Binary found at /Users/hthiagar/Documents/GitHub/cloud-developer/nd9990-c3-microservices-v1/Udacity-Refactor-Udagram-App-Project/exercise/udacity-c3-frontend/node\_modules/node-sass/vendor/darwin-x64-72/binding.node

Testing binary

Binary is fine

npm notice created a lockfile as package-lock.json. You should commit this file.

added 1231 packages from 1059 contributors and audited 53934 packages in 42.549s

19 packages are looking for funding

run `npm fund` for details

found 9 vulnerabilities (4 **low**, 3 moderate, 2 high)

run `npm audit fix` to fix them, or `npm audit` for details

HTHIAGAR-M-92Y3:udacity-c3-frontend hthiagar$

HTHIAGAR-M-92Y3:udacity-c3-frontend hthiagar$ **ionic build**

> ng run app:build

u Date: **2020-03-23T19:42:21.864Z**

Hash: **dcc1e8f49d430110c333**

Time: **10883**ms

chunk {**0**} **0.js, 0.js.map** () 15.3 kB  **[rendered]**

chunk {**1**} **1.js, 1.js.map** () 2.63 kB  **[rendered]**

chunk {**2**} **2.js, 2.js.map** () 2.15 kB  **[rendered]**

chunk {**3**} **3.js, 3.js.map** () 2.81 kB  **[rendered]**

chunk {**4**} **4.js, 4.js.map** () 41.9 kB  **[rendered]**

chunk {**5**} **5.js, 5.js.map** () 13.4 kB  **[rendered]**

chunk {**6**} **6.js, 6.js.map** () 1.78 kB  **[rendered]**

chunk {**7**} **7.js, 7.js.map** () 210 kB  **[rendered]**

chunk {**8**} **8.js, 8.js.map** () 6.28 kB  **[rendered]**

chunk {**9**} **9.js, 9.js.map** () 15.2 kB  **[rendered]**

chunk {**10**} **10.js, 10.js.map** () 21.9 kB  **[rendered]**

chunk {**11**} **11.js, 11.js.map** () 27.7 kB  **[rendered]**

chunk {**12**} **12.js, 12.js.map** () 16.3 kB  **[rendered]**

chunk {**13**} **13.js, 13.js.map** () 21.8 kB  **[rendered]**

chunk {**14**} **14.js, 14.js.map** () 18.9 kB  **[rendered]**

chunk {**15**} **15.js, 15.js.map** () 32.5 kB  **[rendered]**

chunk {**16**} **16.js, 16.js.map** () 32.5 kB  **[rendered]**

chunk {**17**} **17.js, 17.js.map** () 70 kB  **[rendered]**

chunk {**18**} **18.js, 18.js.map** () 68.8 kB  **[rendered]**

chunk {**19**} **19.js, 19.js.map** () 5.19 kB  **[rendered]**

chunk {**20**} **20.js, 20.js.map** () 5.24 kB  **[rendered]**

chunk {**21**} **21.js, 21.js.map** () 11.3 kB  **[rendered]**

chunk {**22**} **22.js, 22.js.map** () 11.9 kB  **[rendered]**

chunk {**23**} **23.js, 23.js.map** () 4.12 kB  **[rendered]**

chunk {**24**} **24.js, 24.js.map** () 4.11 kB  **[rendered]**

chunk {**25**} **25.js, 25.js.map** () 24.4 kB  **[rendered]**

chunk {**26**} **26.js, 26.js.map** () 24.6 kB  **[rendered]**

chunk {**27**} **27.js, 27.js.map** () 13.2 kB  **[rendered]**

chunk {**28**} **28.js, 28.js.map** () 12.8 kB  **[rendered]**

chunk {**29**} **29.js, 29.js.map** () 9.27 kB  **[rendered]**

chunk {**30**} **30.js, 30.js.map** () 9.39 kB  **[rendered]**

chunk {**31**} **31.js, 31.js.map** () 5.84 kB  **[rendered]**

chunk {**32**} **32.js, 32.js.map** () 5.84 kB  **[rendered]**

chunk {**33**} **33.js, 33.js.map** () 16.9 kB  **[rendered]**

chunk {**34**} **34.js, 34.js.map** () 72.1 kB  **[rendered]**

chunk {**35**} **35.js, 35.js.map** () 71.8 kB  **[rendered]**

chunk {**36**} **36.js, 36.js.map** () 21.2 kB  **[rendered]**

chunk {**37**} **37.js, 37.js.map** () 20.3 kB  **[rendered]**

chunk {**38**} **38.js, 38.js.map** () 4.1 kB  **[rendered]**

chunk {**39**} **39.js, 39.js.map** () 15.1 kB  **[rendered]**

chunk {**40**} **40.js, 40.js.map** () 15.1 kB  **[rendered]**

chunk {**41**} **41.js, 41.js.map** () 15.9 kB  **[rendered]**

chunk {**42**} **42.js, 42.js.map** () 15.7 kB  **[rendered]**

chunk {**43**} **43.js, 43.js.map** () 31.1 kB  **[rendered]**

chunk {**44**} **44.js, 44.js.map** () 30.9 kB  **[rendered]**

chunk {**45**} **45.js, 45.js.map** () 42.8 kB  **[rendered]**

chunk {**46**} **46.js, 46.js.map** () 46.4 kB  **[rendered]**

chunk {**47**} **47.js, 47.js.map** () 14.2 kB  **[rendered]**

chunk {**48**} **48.js, 48.js.map** () 13.9 kB  **[rendered]**

chunk {**49**} **49.js, 49.js.map** () 40.4 kB  **[rendered]**

chunk {**50**} **50.js, 50.js.map** () 40.5 kB  **[rendered]**

chunk {**51**} **51.js, 51.js.map** () 16.8 kB  **[rendered]**

chunk {**52**} **52.js, 52.js.map** () 16.8 kB  **[rendered]**

chunk {**53**} **53.js, 53.js.map** () 45.1 kB  **[rendered]**

chunk {**54**} **54.js, 54.js.map** () 22.2 kB  **[rendered]**

chunk {**55**} **55.js, 55.js.map** () 21.5 kB  **[rendered]**

chunk {**56**} **56.js, 56.js.map** () 12.9 kB  **[rendered]**

chunk {**57**} **57.js, 57.js.map** () 12.9 kB  **[rendered]**

chunk {**58**} **58.js, 58.js.map** () 15 kB  **[rendered]**

chunk {**59**} **59.js, 59.js.map** () 15.2 kB  **[rendered]**

chunk {**60**} **60.js, 60.js.map** () 23.6 kB  **[rendered]**

chunk {**61**} **61.js, 61.js.map** () 25 kB  **[rendered]**

chunk {**62**} **62.js, 62.js.map** () 21.2 kB  **[rendered]**

chunk {**63**} **63.js, 63.js.map** () 21.2 kB  **[rendered]**

chunk {**64**} **64.js, 64.js.map** () 14.8 kB  **[rendered]**

chunk {**65**} **65.js, 65.js.map** () 14.8 kB  **[rendered]**

chunk {**66**} **66.js, 66.js.map** () 7.88 kB  **[rendered]**

chunk {**67**} **67.js, 67.js.map** () 32.8 kB  **[rendered]**

chunk {**68**} **68.js, 68.js.map** () 27.9 kB  **[rendered]**

chunk {**69**} **69.js, 69.js.map** () 25.4 kB  **[rendered]**

chunk {**70**} **70.js, 70.js.map** () 17.2 kB  **[rendered]**

chunk {**71**} **71.js, 71.js.map** () 16.8 kB  **[rendered]**

chunk {**72**} **72.js, 72.js.map** () 27 kB  **[rendered]**

chunk {**73**} **73.js, 73.js.map** () 27 kB  **[rendered]**

chunk {**74**} **74.js, 74.js.map** () 47.2 kB  **[rendered]**

chunk {**75**} **75.js, 75.js.map** () 47.2 kB  **[rendered]**

chunk {**76**} **76.js, 76.js.map** () 10.9 kB  **[rendered]**

chunk {**77**} **77.js, 77.js.map** () 7.74 kB  **[rendered]**

chunk {**78**} **78.js, 78.js.map** () 7.74 kB  **[rendered]**

chunk {**79**} **79.js, 79.js.map** () 16 kB  **[rendered]**

chunk {**80**} **80.js, 80.js.map** () 16.2 kB  **[rendered]**

chunk {**81**} **81.js, 81.js.map** () 2.06 kB  **[rendered]**

chunk {**82**} **82.js, 82.js.map** () 13.9 kB  **[rendered]**

chunk {**83**} **83.js, 83.js.map** () 13.9 kB  **[rendered]**

chunk {**84**} **84.js, 84.js.map** () 20.8 kB  **[rendered]**

chunk {**85**} **85.js, 85.js.map** () 21.3 kB  **[rendered]**

chunk {**86**} **86.js, 86.js.map** () 12.9 kB  **[rendered]**

chunk {**87**} **87.js, 87.js.map** () 12.8 kB  **[rendered]**

chunk {**88**} **88.js, 88.js.map** () 23.3 kB  **[rendered]**

chunk {**89**} **89.js, 89.js.map** () 26.5 kB  **[rendered]**

chunk {**90**} **90.js, 90.js.map** () 3.86 kB  **[rendered]**

chunk {**91**} **91.js, 91.js.map** () 15.7 kB  **[rendered]**

chunk {**92**} **92.js, 92.js.map** () 78.7 kB  **[rendered]**

chunk {**93**} **93.js, 93.js.map** () 20.2 kB  **[rendered]**

chunk {**common**} **common.js, common.js.map** (common) 14.7 kB  **[rendered]**

chunk {**es2015-polyfills**} **es2015-polyfills.js, es2015-polyfills.js.map** (es2015-polyfills) 285 kB **[initial] [rendered]**

chunk {**home-home-module**} **home-home-module.js, home-home-module.js.map** (home-home-module) 31.7 kB  **[rendered]**

chunk {**main**} **main.js, main.js.map** (main) 63.6 kB **[initial] [rendered]**

chunk {**polyfills**} **polyfills.js, polyfills.js.map** (polyfills) 237 kB **[initial] [rendered]**

chunk {**runtime**} **runtime.js, runtime.js.map** (runtime) 8.79 kB **[entry] [rendered]**

chunk {**styles**} **styles.js, styles.js.map** (styles) 104 kB **[initial] [rendered]**

chunk {**vendor**} **vendor.js, vendor.js.map** (vendor) 4.31 MB **[initial] [rendered]**

───────────────────────────────────────────────

Ionic CLI update available: 6.2.1 → 6.3.0

Run npm i -g @ionic/cli to update

───────────────────────────────────────────────

HTHIAGAR-M-92Y3:udacity-c3-frontend hthiagar$

**Building docker images:**

HTHIAGAR-M-92Y3:docker hthiagar$ pwd

/Users/hthiagar/Documents/GitHub/cloud-developer/nd9990-c3-microservices-v1/Udacity-Refactor-Udagram-App-Project/exercise/udacity-c3-deployment/docker

HTHIAGAR-M-92Y3:docker hthiagar$ ls -lart

total 40

-rw-r--r-- 1 hthiagar staff 57 Mar 16 11:46 Dockerfile

-rw-r--r-- 1 hthiagar staff 641 Mar 16 11:46 README.md

drwxr-xr-x 7 hthiagar staff 224 Mar 16 11:46 .

drwxr-xr-x 4 hthiagar staff 128 Mar 16 11:46 ..

-rw-r--r-- 1 hthiagar staff 438 Mar 23 14:49 docker-compose-build.yaml

-rw-r--r-- 1 hthiagar staff 1127 Mar 23 14:53 docker-compose.yaml

-rw-r--r-- 1 hthiagar staff 677 Mar 23 15:24 nginx.conf

HTHIAGAR-M-92Y3:docker hthiagar$ docker --version

Docker version 19.03.8, build afacb8b

HTHIAGAR-M-92Y3:docker hthiagar$ docker-compose -f docker-compose-build.yaml build --parallel

Building reverseproxy ...

Building backend\_user ...

Building backend\_feed ...

Building frontend ...

Building backend\_user

Building reverseproxy

Building backend\_feed

Building frontend

Step 1/2 : FROM nginx:alpine

---> 377c0837328f

Step 2/2 : COPY nginx.conf /etc/nginx/nginx.conf

Building reverseproxy ... done

---> 702979f12893

Successfully built 702979f12893

Successfully tagged hthiagar/reverseproxy:latest

Step 1/7 : FROM node:12

---> d834cbcf2402

Step 2/7 : WORKDIR /usr/src/app

---> Using cache

---> 2ae5b84bc709

Step 3/7 : COPY package\*.json ./

Step 1/7 : FROM node:12

---> d834cbcf2402

Step 2/7 : WORKDIR /usr/src/app

---> Using cache

---> 2ae5b84bc709

Step 3/7 : COPY package\*.json ./

---> 9747f90d12a7

---> f8b5a3433673

Step 4/7 : RUN npm ciStep 4/7 : RUN npm ci

---> Running in 2892d0c36247

---> Running in f99039bf8b32

> bcrypt@3.0.8 install /usr/src/app/node\_modules/bcrypt

> node-pre-gyp install --fallback-to-build

node-pre-gyp WARN Using needle for node-pre-gyp https download

[bcrypt] Success: "/usr/src/app/node\_modules/bcrypt/lib/binding/bcrypt\_lib.node" is installed via remote

added 373 packages in 17.516s

added 330 packages in 13.522s

Removing intermediate container 2892d0c36247

---> 67b0f0b9688c

Step 5/7 : COPY . .

---> 18c0af070929

Step 6/7 : EXPOSE 8080

---> Running in 08e0efb292dc

Removing intermediate container f99039bf8b32

---> 08cf2739ce18

Step 5/7 : COPY . .

Removing intermediate container 08e0efb292dc

---> b57dfcc6b9a6

Step 7/7 : CMD [ "npm", "run", "prod" ]

---> Running in 33f2087c1179

Removing intermediate container 33f2087c1179

---> ed991b4532b0

Successfully built ed991b4532b0

Building backend\_user ... done

Step 6/7 : EXPOSE 8080

Successfully tagged hthiagar/udacity-restapi-user:latest

---> Running in 84f7b74bd8fb

Removing intermediate container 84f7b74bd8fb

---> 0f1c3650ec27

Step 7/7 : CMD [ "npm", "run", "prod" ]

---> Running in 1a3f52277b41

Removing intermediate container 1a3f52277b41

---> 395fc74a48f4

Building backend\_feed ... done

Successfully tagged hthiagar/udacity-restapi-feed:latest

Step 1/8 : FROM beevelop/ionic AS ionic

---> 4ef3153b09a1

Step 2/8 : WORKDIR /usr/src/app

---> Using cache

---> e2ad8bb1742e

Step 3/8 : COPY package\*.json ./

---> e39d7a214952

Step 4/8 : RUN npm ci

---> Running in d0e7464a3534

> fsevents@1.2.12 install /usr/src/app/node\_modules/fsevents

> node-gyp rebuild

> core-js@2.6.11 postinstall /usr/src/app/node\_modules/core-js

> node -e "try{require('./postinstall')}catch(e){}"

Thank you for using core-js ( https://github.com/zloirock/core-js ) for polyfilling JavaScript standard library!

The project needs your help! Please consider supporting of core-js on Open Collective or Patreon:

> https://opencollective.com/core-js

> https://www.patreon.com/zloirock

Also, the author of core-js ( https://github.com/zloirock ) is looking for a good job -)

> node-sass@4.12.0 install /usr/src/app/node\_modules/node-sass

> node scripts/install.js

Downloading binary from https://github.com/sass/node-sass/releases/download/v4.12.0/linux-x64-64\_binding.node

Download complete

Binary saved to /usr/src/app/node\_modules/node-sass/vendor/linux-x64-64/binding.node

> node-sass@4.12.0 postinstall /usr/src/app/node\_modules/node-sass

> node scripts/build.js

Binary found at /usr/src/app/node\_modules/node-sass/vendor/linux-x64-64/binding.node

Testing binary

Binary is fine

added 1096 packages in 38.127s

Removing intermediate container d0e7464a3534

---> 897cafc90ae8

Step 5/8 : COPY . .

---> 9ac4e3b5bca9

Step 6/8 : RUN ionic build

---> Running in c6ff8f76bea7

> ng run app:build

Date: 2020-03-23T21:11:43.420Z

Hash: 6062d3c1295a62c2a353

Time: 13446ms

chunk {0} 0.js, 0.js.map () 15.3 kB [rendered]

chunk {1} 1.js, 1.js.map () 2.63 kB [rendered]

chunk {2} 2.js, 2.js.map () 2.15 kB [rendered]

chunk {3} 3.js, 3.js.map () 2.81 kB [rendered]

chunk {4} 4.js, 4.js.map () 41.9 kB [rendered]

chunk {5} 5.js, 5.js.map () 13.4 kB [rendered]

chunk {6} 6.js, 6.js.map () 1.78 kB [rendered]

chunk {7} 7.js, 7.js.map () 210 kB [rendered]

chunk {8} 8.js, 8.js.map () 6.28 kB [rendered]

chunk {9} 9.js, 9.js.map () 15.2 kB [rendered]

chunk {10} 10.js, 10.js.map () 21.9 kB [rendered]

chunk {11} 11.js, 11.js.map () 27.7 kB [rendered]

chunk {12} 12.js, 12.js.map () 16.3 kB [rendered]

chunk {13} 13.js, 13.js.map () 21.8 kB [rendered]

chunk {14} 14.js, 14.js.map () 18.9 kB [rendered]

chunk {15} 15.js, 15.js.map () 32.5 kB [rendered]

chunk {16} 16.js, 16.js.map () 32.5 kB [rendered]

chunk {17} 17.js, 17.js.map () 70 kB [rendered]

chunk {18} 18.js, 18.js.map () 68.8 kB [rendered]

chunk {19} 19.js, 19.js.map () 5.19 kB [rendered]

chunk {20} 20.js, 20.js.map () 5.24 kB [rendered]

chunk {21} 21.js, 21.js.map () 11.3 kB [rendered]

chunk {22} 22.js, 22.js.map () 11.9 kB [rendered]

chunk {23} 23.js, 23.js.map () 4.12 kB [rendered]

chunk {24} 24.js, 24.js.map () 4.11 kB [rendered]

chunk {25} 25.js, 25.js.map () 24.4 kB [rendered]

chunk {26} 26.js, 26.js.map () 24.6 kB [rendered]

chunk {27} 27.js, 27.js.map () 13.2 kB [rendered]

chunk {28} 28.js, 28.js.map () 12.8 kB [rendered]

chunk {29} 29.js, 29.js.map () 9.27 kB [rendered]

chunk {30} 30.js, 30.js.map () 9.39 kB [rendered]

chunk {31} 31.js, 31.js.map () 5.84 kB [rendered]

chunk {32} 32.js, 32.js.map () 5.84 kB [rendered]

chunk {33} 33.js, 33.js.map () 16.9 kB [rendered]

chunk {34} 34.js, 34.js.map () 72.1 kB [rendered]

chunk {35} 35.js, 35.js.map () 71.8 kB [rendered]

chunk {36} 36.js, 36.js.map () 21.2 kB [rendered]

chunk {37} 37.js, 37.js.map () 20.3 kB [rendered]

chunk {38} 38.js, 38.js.map () 4.1 kB [rendered]

chunk {39} 39.js, 39.js.map () 15.1 kB [rendered]

chunk {40} 40.js, 40.js.map () 15.1 kB [rendered]

chunk {41} 41.js, 41.js.map () 15.9 kB [rendered]

chunk {42} 42.js, 42.js.map () 15.7 kB [rendered]

chunk {43} 43.js, 43.js.map () 31.1 kB [rendered]

chunk {44} 44.js, 44.js.map () 30.9 kB [rendered]

chunk {45} 45.js, 45.js.map () 42.8 kB [rendered]

chunk {46} 46.js, 46.js.map () 46.4 kB [rendered]

chunk {47} 47.js, 47.js.map () 14.2 kB [rendered]

chunk {48} 48.js, 48.js.map () 13.9 kB [rendered]

chunk {49} 49.js, 49.js.map () 40.4 kB [rendered]

chunk {50} 50.js, 50.js.map () 40.5 kB [rendered]

chunk {51} 51.js, 51.js.map () 16.8 kB [rendered]

chunk {52} 52.js, 52.js.map () 16.8 kB [rendered]

chunk {53} 53.js, 53.js.map () 45.1 kB [rendered]

chunk {54} 54.js, 54.js.map () 22.2 kB [rendered]

chunk {55} 55.js, 55.js.map () 21.5 kB [rendered]

chunk {56} 56.js, 56.js.map () 12.9 kB [rendered]

chunk {57} 57.js, 57.js.map () 12.9 kB [rendered]

chunk {58} 58.js, 58.js.map () 15 kB [rendered]

chunk {59} 59.js, 59.js.map () 15.2 kB [rendered]

chunk {60} 60.js, 60.js.map () 23.6 kB [rendered]

chunk {61} 61.js, 61.js.map () 25 kB [rendered]

chunk {62} 62.js, 62.js.map () 21.2 kB [rendered]

chunk {63} 63.js, 63.js.map () 21.2 kB [rendered]

chunk {64} 64.js, 64.js.map () 14.8 kB [rendered]

chunk {65} 65.js, 65.js.map () 14.8 kB [rendered]

chunk {66} 66.js, 66.js.map () 7.88 kB [rendered]

chunk {67} 67.js, 67.js.map () 32.8 kB [rendered]

chunk {68} 68.js, 68.js.map () 27.9 kB [rendered]

chunk {69} 69.js, 69.js.map () 25.4 kB [rendered]

chunk {70} 70.js, 70.js.map () 17.2 kB [rendered]

chunk {71} 71.js, 71.js.map () 16.8 kB [rendered]

chunk {72} 72.js, 72.js.map () 27 kB [rendered]

chunk {73} 73.js, 73.js.map () 27 kB [rendered]

chunk {74} 74.js, 74.js.map () 47.2 kB [rendered]

chunk {75} 75.js, 75.js.map () 47.2 kB [rendered]

chunk {76} 76.js, 76.js.map () 10.9 kB [rendered]

chunk {77} 77.js, 77.js.map () 7.74 kB [rendered]

chunk {78} 78.js, 78.js.map () 7.74 kB [rendered]

chunk {79} 79.js, 79.js.map () 16 kB [rendered]

chunk {80} 80.js, 80.js.map () 16.2 kB [rendered]

chunk {81} 81.js, 81.js.map () 2.06 kB [rendered]

chunk {82} 82.js, 82.js.map () 13.9 kB [rendered]

chunk {83} 83.js, 83.js.map () 13.9 kB [rendered]

chunk {84} 84.js, 84.js.map () 20.8 kB [rendered]

chunk {85} 85.js, 85.js.map () 21.3 kB [rendered]

chunk {86} 86.js, 86.js.map () 12.9 kB [rendered]

chunk {87} 87.js, 87.js.map () 12.8 kB [rendered]

chunk {88} 88.js, 88.js.map () 23.3 kB [rendered]

chunk {89} 89.js, 89.js.map () 26.5 kB [rendered]

chunk {90} 90.js, 90.js.map () 3.86 kB [rendered]

chunk {91} 91.js, 91.js.map () 15.7 kB [rendered]

chunk {92} 92.js, 92.js.map () 78.7 kB [rendered]

chunk {93} 93.js, 93.js.map () 20.2 kB [rendered]

chunk {common} common.js, common.js.map (common) 14.7 kB [rendered]

chunk {es2015-polyfills} es2015-polyfills.js, es2015-polyfills.js.map (es2015-polyfills) 285 kB [initial] [rendered]

chunk {home-home-module} home-home-module.js, home-home-module.js.map (home-home-module) 31.3 kB [rendered]

chunk {main} main.js, main.js.map (main) 63.2 kB [initial] [rendered]

chunk {polyfills} polyfills.js, polyfills.js.map (polyfills) 237 kB [initial] [rendered]

chunk {runtime} runtime.js, runtime.js.map (runtime) 8.79 kB [entry] [rendered]

chunk {styles} styles.js, styles.js.map (styles) 104 kB [initial] [rendered]

chunk {vendor} vendor.js, vendor.js.map (vendor) 4.31 MB [initial] [rendered]

Removing intermediate container c6ff8f76bea7

---> 7f62421db6ab

Step 7/8 : FROM nginx:alpine

---> 377c0837328f

Step 8/8 : COPY --from=ionic /usr/src/app/www /usr/share/nginx/html

---> 26ce9cf020e5

Successfully built 26ce9cf020e5

Building frontend ... done

HTHIAGAR-M-92Y3:docker hthiagar$

**Docker-compose UP:**

HTHIAGAR-M-92Y3:docker hthiagar$ docker-compose up

Recreating docker\_frontend\_1 ... done

Recreating docker\_backend-feed\_1 ... done

Recreating docker\_backend-user\_1 ... done

Recreating docker\_reverseproxy\_1 ... done

Attaching to docker\_frontend\_1, docker\_backend-user\_1, docker\_backend-feed\_1, docker\_reverseproxy\_1

reverseproxy\_1 | 2020/03/23 21:15:02 [notice] 1#1: using the "epoll" event method

reverseproxy\_1 | 2020/03/23 21:15:02 [notice] 1#1: nginx/1.17.9

reverseproxy\_1 | 2020/03/23 21:15:02 [notice] 1#1: built by gcc 8.3.0 (Alpine 8.3.0)

reverseproxy\_1 | 2020/03/23 21:15:02 [notice] 1#1: OS: Linux 4.19.76-linuxkit

reverseproxy\_1 | 2020/03/23 21:15:02 [notice] 1#1: getrlimit(RLIMIT\_NOFILE): 1048576:1048576

reverseproxy\_1 | 2020/03/23 21:15:02 [notice] 1#1: start worker processes

reverseproxy\_1 | 2020/03/23 21:15:02 [notice] 1#1: start worker process 6

backend-feed\_1 |

backend-feed\_1 | > udacity-c2-restapi@1.0.0 prod /usr/src/app

backend-feed\_1 | > tsc && node ./www/server.js

backend-feed\_1 |

backend-user\_1 |

backend-user\_1 | > udacity-c2-restapi@1.0.0 prod /usr/src/app

backend-user\_1 | > tsc && node ./www/server.js

backend-user\_1 |

backend-user\_1 | Executing (default): CREATE TABLE IF NOT EXISTS "Users" ("email" VARCHAR(255) , "password\_hash" VARCHAR(255), "createdAt" TIMESTAMP WITH TIME ZONE, "updatedAt" TIMESTAMP WITH TIME ZONE, PRIMARY KEY ("email"));

backend-feed\_1 | Executing (default): CREATE TABLE IF NOT EXISTS "FeedItems" ("id" SERIAL , "caption" VARCHAR(255), "url" VARCHAR(255), "createdAt" TIMESTAMP WITH TIME ZONE, "updatedAt" TIMESTAMP WITH TIME ZONE, PRIMARY KEY ("id"));

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.attnum) 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 i.oid = ix.indexrelid AND a.attrelid = t.oid AND t.relkind = 'r' and t.relname = 'Users' GROUP BY i.relname, ix.indexrelid, ix.indisprimary, ix.indisunique, ix.indkey ORDER BY i.relname;

backend-feed\_1 | Executing (default): SELECT i.relname AS name, ix.indisprimary AS primary, ix.indisunique AS unique, ix.indkey AS indkey, array\_agg(a.attnum) 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 i.oid = ix.indexrelid AND a.attrelid = t.oid AND t.relkind = 'r' and t.relname = 'FeedItems' 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

backend-feed\_1 | server running http://localhost:8100

backend-feed\_1 | press CTRL+C to stop server

**Docker Images Push to Docker Hub:**

HTHIAGAR-M-92Y3:docker hthiagar$ docker-compose -f docker-compose-build.yaml push

Pushing reverseproxy (hthiagar/reverseproxy:latest)...

The push refers to repository [docker.io/hthiagar/reverseproxy]

34cda9875099: Layer already exists

6f23cf4d16de: Layer already exists

531743b7098c: Layer already exists

latest: digest: sha256:76a3daee890dcedd4eeb32540592f25d9c0462f28732ddedd8ccd9d62314094b size: 946

Pushing backend\_user (hthiagar/udacity-restapi-user:latest)...

06d735bbfedc: Pushed

d6a58e911f41: Pushed

Pushing [==> ] 6.63MB/153.6MB: Pushed

.8kB/113.7kB: Layer already exists

9639e14ebab8: Layer already exists

df1a5de28ce6: Layer already exists

5d0d307e8511: Layer already exists

236d3097407d: Layer already exists

91daf9fc6311: Layer already exists

162804eaaa1e: Layer already exists

d040e6423b7a: Layer already exists

00adafc8e77b: Layer already exists

2c995a2087c1: Layer already exists

latest: digest: sha256:9d5264244fd62e89d9a0223b9000ab5e95b14f0b7847b050c8d8f9aaa3304df7 size: 3054

Pushing backend\_feed (hthiagar/udacity-restapi-feed:latest)...

The push refers to repository [docker.io/hthiagar/udacity-restapi-feed]

ed5c2c3c3a79: Pushed

94fa6b57a5fd: Pushed

5368a2335366: Pushed

e81d9f2a0eee: Layer already exists

9639e14ebab8: Layer already exists

df1a5de28ce6: Layer already exists

5d0d307e8511: Layer already exists

236d3097407d: Layer already exists

91daf9fc6311: Layer already exists

162804eaaa1e: Layer already exists

d040e6423b7a: Layer already exists

00adafc8e77b: Layer already exists

2c995a2087c1: Layer already exists

latest: digest: sha256:d4b60526568e7afe317f32377c30d05c0b382740921366eb4bed2469a5486183 size: 3054

Pushing frontend (hthiagar/udacity-frontend:local)...

The push refers to repository [docker.io/hthiagar/udacity-frontend]

84e2ae4825ba: Pushed

6f23cf4d16de: Layer already exists

531743b7098c: Layer already exists

local: digest: sha256:88dbfac84ceb513d261dc1221ca6e84654c93b0c6382614c11aa1d51a22c3550 size: 950

HTHIAGAR-M-92Y3:docker hthiagar$

HTHIAGAR-M-92Y3:k8s hthiagar$ docker container ls

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

6e4b4986f3df hthiagar/reverseproxy "nginx -g 'daemon of…" 33 minutes ago Up 33 minutes 80/tcp, 0.0.0.0:8080->8080/tcp docker\_reverseproxy\_1

bcf9b077618c hthiagar/udacity-restapi-user "docker-entrypoint.s…" 33 minutes ago Up 33 minutes 8080/tcp docker\_backend-user\_1

2dd753b44aa8 hthiagar/udacity-frontend:local "nginx -g 'daemon of…" 33 minutes ago Up 33 minutes 0.0.0.0:8100->80/tcp docker\_frontend\_1

5d0147bc933c hthiagar/udacity-restapi-feed "docker-entrypoint.s…" 33 minutes ago Up 33 minutes 8080/tcp docker\_backend-feed\_1

HTHIAGAR-M-92Y3:k8s hthiagar$

**Screenshot from the docker hub:**

A screenshot of a social media post

Description automatically generated

**A screenshot of a computer screen

Description automatically generated**

**Screenshot from the AWS RDS Console:**

A screenshot of a social media post

Description automatically generated

**minikube start with virtual-box:**

HTHIAGAR-M-92Y3:k8s hthiagar$ minikube start --vm-driver=virtualbox --cpus=6

😄 minikube v1.8.2 on Darwin 10.14.6

✨ Using the virtualbox driver based on existing profile

⌛ Reconfiguring existing host ...

🔄 Starting existing virtualbox VM for "minikube" ...

🐳 Preparing Kubernetes v1.17.3 on Docker 19.03.6 ...

🚀 Launching Kubernetes ...

🌟 Enabling addons: default-storageclass, storage-provisioner

🏄 Done! kubectl is now configured to use "minikube"

HTHIAGAR-M-92Y3:k8s hthiagar$

**VirtualBox Screenshot:**

A screenshot of a cell phone

Description automatically generated

HTHIAGAR-M-92Y3:k8s hthiagar$ kubectl get pods

No resources found in default namespace.

HTHIAGAR-M-92Y3:k8s hthiagar$ kubectl get pods --all-namespaces

NAMESPACE NAME READY STATUS RESTARTS AGE

kube-system coredns-6955765f44-rhkxf 1/1 Running 2 26h

kube-system coredns-6955765f44-szc7t 1/1 Running 2 26h

kube-system etcd-m01 1/1 Running 2 26h

kube-system kube-apiserver-m01 1/1 Running 2 26h

kube-system kube-controller-manager-m01 1/1 Running 4 26h

kube-system kube-proxy-994wc 1/1 Running 2 26h

kube-system kube-scheduler-m01 1/1 Running 4 26h

kube-system storage-provisioner 1/1 Running 3 26h

HTHIAGAR-M-92Y3:k8s hthiagar$

**Deploying the Containers using kubectl:**

HTHIAGAR-M-92Y3:k8s hthiagar$ kubectl apply -f reverseproxy-deployment.yaml

deployment.apps/reverseproxy created

HTHIAGAR-M-92Y3:k8s hthiagar$ kubectl apply -f frontend-deployment.yaml

deployment.apps/frontend created

HTHIAGAR-M-92Y3:k8s hthiagar$ kubectl apply -f backend-user-deployment.yaml

deployment.apps/backend-user created

HTHIAGAR-M-92Y3:k8s hthiagar$ kubectl apply -f backend-feed-deployment.yaml

deployment.apps/backend-feed created

A screenshot of a cell phone

Description automatically generated

**Udagram App In Action:**

A screenshot of a dog

Description automatically generated