

## CI/CD proposal

Implementing CI/CD comes with many benefits that allows a business to reduce/avoid costs and increase revenue. One of these benefits includes automating infrastructure creation. This technical improvement allows a business to avoid costs, prevent human errors, and deploy much faster. It takes a lot of effort and configurations to build infrastructure and automating this will saver lots of time and money. Another benefit of CI/CD includes automated rollback triggered by job failure. This is important because if something fails along the CI/CD pipeline, the code will automate the destruction of resources with protects revenue and ensures everything gets cleaned up quickly and efficiently.

▶  Preparing environment variables

0s



▶  Checkout code

0s



▶  Restoring cache

5s



▼  Back-end build

1m 33s



```
36 Fixed 1 error(s) in /home/circleci/project/backend/src/modules/domain/employees/commands/handlers/employee-phone-number-updater.handler.ts
37 Fixed 1 error(s) in /home/circleci/project/backend/src/modules/domain/employees/commands/handlers/employee-personal-email-updater.handler.ts
38 Fixed 1 error(s) in /home/circleci/project/backend/src/modules/domain/employees/commands/handlers/employee-company-email-updater.handler.ts
39 Fixed 1 error(s) in /home/circleci/project/backend/src/modules/domain/employees/commands/handlers/employee-salary-updater.handler.ts
40 Fixed 1 error(s) in /home/circleci/project/backend/src/modules/domain/employees/commands/handlers/employee-salary-type-updater.handler.ts
41 Fixed 1 error(s) in /home/circleci/project/backend/src/modules/domain/employees/commands/handlers/employee-effective-date-updater.handler.ts
42 Fixed 1 error(s) in /home/circleci/project/backend/src/modules/domain/employees/commands/handlers/employee-birthdate-updater.handler.ts
43 Fixed 7 error(s) in /home/circleci/project/backend/src/modules/domain/employees/commands/handlers/index.ts
44 Fixed 1 error(s) in /home/circleci/project/backend/src/modules/domain/employees/requests/update-employee-request.interface.ts
45 Fixed 1 error(s) in /home/circleci/project/backend/src/modules/domain/employees/commands/validators/forUpdateEmployeeName/check-properties-value.validator.ts
46 Fixed 1 error(s) in /home/circleci/project/backend/src/modules/domain/employees/commands/validators/forUpdateEmployeeAddress/check-properties-value.validator.ts
47 Fixed 1 error(s) in /home/circleci/project/backend/src/modules/domain/employees/commands/validators/forUpdateEmployeeSalary/check-properties-value.validator.ts
48 Fixed 1 error(s) in /home/circleci/project/backend/src/modules/domain/employees/commands/validators/forUpdateEmployeeSalaryType/check-properties-value.validator.ts
49 Fixed 1 error(s) in /home/circleci/project/backend/src/modules/domain/employees/commands/validators/index.ts
50 Fixed 1 error(s) in /home/circleci/project/backend/src/modules/domain/employees/employee.module.ts
51 Fixed 1 error(s) in /home/circleci/project/backend/src/main.ts
52
53 ERROR: /home/circleci/project/backend/src/main.ts[32, 6]: statements are not aligned
54
55 npm ERR! code ELIFECYCLE
56 npm ERR! errno 2
57 npm ERR! glee2@1.0.0 lint: `tslint -p tsconfig.json -c tslint.json --fix`
58 npm ERR! Exit status 2
59 npm ERR!
60 npm ERR! Failed at the glee2@1.0.0 lint script.
61 npm ERR! This is probably not a problem with npm. There is likely additional logging output above.
62
63 npm ERR! A complete log of this run can be found in:
64 npm ERR!     /home/circleci/.npm/_logs/2021-10-13T21_33_23_452Z-debug.log
65
66
67 Exited with code exit status 2
68 CircleCI received exit code 2
```



Preparing environment variables

Checkout code0s

Restoring cache6s

Test back-end1m 29s

error.filter.ts

status

status.controller.ts

status.module.ts

-----

71.43

100

100

80

100

0

1,4

Summary of all failing tests

FAIL src/modules/domain/employees/commands/handlers/employee-activator.handler.spec.ts

• Employee Remover › when a user activates an employee › should activate the employee from the repository

expect(jest.fn()).toBeCalledWith(...expected)

Expected: 100

Received: 101

Number of calls: 1

33 |

34 | // Assert

> 35 | expect(employeeRepository.findById).toBeCalledWith(100);

| ^

36 | expect(employeeRepository.save).toBeCalled();

37 | });

38 | });

at src/modules/domain/employees/commands/handlers/employee-activator.handler.spec.ts:35:43

at fulfilled (src/modules/domain/employees/commands/handlers/employee-activator.handler.spec.ts:5:58)

Test Suites: 1 failed, 50 passed, 51 total

Tests: 1 failed, 78 passed, 79 total

Snapshots: 0 total

Time: 87.401s

Run all test suites

Your output is too large to display in the browser.  
Only the last 400000 characters are displayed.

[Download the full output as a file](#)

```
5571
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5600
5601
5602
5603
```

Package	trim-off-newlines
Patched in	No patch available
Dependency of	standard-version [dev]
Path	standard-version > conventional-changelog > conventional-changelog-core > conventional-commits-parser > trim-off-newlines
More info	<a href="https://github.com/advisories/GHSA-38fc-wpqx-33j7">https://github.com/advisories/GHSA-38fc-wpqx-33j7</a>

Critical	SQL Injection and Cross-site Scripting in class-validator
Package	class-validator
Patched in	No patch available
Dependency of	class-validator
Path	class-validator
More info	<a href="https://github.com/advisories/GHSA-fj58-h2fr-3pp2">https://github.com/advisories/GHSA-fj58-h2fr-3pp2</a>







found 479 vulnerabilities (2 low, 105 moderate, 314 high, 58 critical) in 1389 scanned packages  
run `npm audit fix` to fix 310 of them.  
166 vulnerabilities require semver-major dependency updates.  
3 vulnerabilities require manual review. See the full report for details.

Exited with code exit status 1  
CircleCI received exit code 1



**Uh-oh, this workflow did not succeed.**

<b>Author</b>	<code>blaxmyth</code>
<b>Project</b>	<code>blaxmyth/cdond-c3-projectstarter</code>
<b>Workflow</b>	<code>default</code>
<b>Branch</b>	<code>master</code>
<b>Commit</b>	<code>testing bug fixes f4e96f5</code>

<b>Jobs</b>	<code>build-frontend</code>	 <b>Success</b>
	<code>test-frontend</code>	 <b>Success</b>
	<code>scan-frontend</code>	 <b>Failed</b>
	<code>build-backend</code>	 <b>Success</b>
	<code>test-backend</code>	 <b>Success</b>
	<code>scan-backend</code>	 <b>Failed</b>

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Unsubscribe by [unfollowing blaxmyth/cdond-c3-projectstarter](#) or [changing your email notification settings](#).

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[circleci.com](#) - +1-800-585-7075 - [@circleci](#)



DashboardProjectBranchWorkflowJob

All Pipelines > cdond-c3-projectstarter > master > default > deploy-infrastructure (199)

deploy-infrastructure Failed

Rerun

Duration / Finished

Queued

Executor / Resource Class

Branch

Commit

Author & Message

9s / 13h ago

0s

Docker / [Medium](#) ⓘ

master

e94b288

testing bug fixes

STEPS

TESTS

ARTIFACTS

Parallel runs

1 / 4 parallel runs ⓘ

00:09

Use parallelism to run faster tests  
Parallelism speeds up tests by splitting them across multiple executors.

Go to Docs

×

▶ Spin up environment

3s

▶ Preparing environment variables

0s

▶ Checkout code

0s

▼ Ensure back-end infrastructure exists

4s

1#!/bin/bash -eo pipefail

2aws cloudformation deploy \

3--template-file .circleci/files/backend.yml \

4--stack-name "udacity-\${CIRCLE\_WORKFLOW\_ID}" \

5--parameter-overrides ID="\${CIRCLE\_WORKFLOW\_ID}"

6


7


8You must specify a region. You can also configure your region by running "aws configure".

9


10Exited with code exit status 253

11CircleCI received exit code 253


 smoke-test

 Failed


Duration / Finished

 7s / 14m ago


Queued

 0s


Executor / Resource Class

 Docker / [Medium](#) ⓘ


Branch

 [master](#)

Commit

 [1b658ac](#)

Author & Message


 testing bug fixes


STEPS


TESTS ●

ARTIFACTS ●

Parallel runs

 1 / 4 parallel runs ⓘ


 0  
00:07

 Use parallelism to run faster tests



Parallelism speeds up tests by splitting them across multiple executors.


Go to Docs

×



▶  Spin up environment


4s



▶  Preparing environment variables


0s



▶  Checkout code


0s



▶  Attaching workspace


0s



▶  Install dependencies


1s



▶  Get backend url

0s

▼  Backend smoke test.

0s

1

#!/bin/sh -eo pipefail

2

# your code here

3

curl -s \$API\_URL/api/status

4

5

6

Exited with code exit status 3

7

CircleCI received exit code 3



Notifications

1

























Status

OPERATIONAL

Docs

Orbs


Help


▶  Spin up environment	1s		
▶  Preparing environment variables	0s		
<div>Enter your search term</div>			
▶  Checkout code	0s		
▶  Attaching workspace	0s		
▶  Install dependencies	10s		
▶  Get backend url	0s		
▶  Backend smoke test.	0s		
▼  Destroy environments	2s		
<div><div>1#!/bin/sh -eo pipefail</div><div>2# Your code here</div><div>3echo "Destroying environment: \${CIRCLE_WORKFLOW_ID} "</div><div>4aws configure set aws_access_key_id \$AWS_ACCESS_KEY_ID</div><div>5aws configure set aws_secret_access_key \$AWS_SECRET_ACCESS_KEY</div><div>6aws configure set region \$AWS_REGION</div><div>7aws cloudformation delete-stack --stack-name udacity-backend-\${CIRCLE_WORKFLOW_ID}</div><div>8aws s3 rm s3://udapeople-\${CIRCLE_WORKFLOW_ID} --recursive</div><div>9aws cloudformation delete-stack --stack-name udacity-frontend-\${CIRCLE_WORKFLOW_ID}</div><div>10</div><div>11Destroying environment: b5b9a74a-4566-46c5-9ffa-24b0bc06d89f</div><div>12delete: s3://*****-b5b9a74a-4566-46c5-9ffa-24b0bc06d89f/1ceff9123b66b50a7d3cb5b221160855.eot</div><div>13delete: s3://*****-b5b9a74a-4566-46c5-9ffa-24b0bc06d89f/index.html</div><div>14delete: s3://*****-b5b9a74a-4566-46c5-9ffa-24b0bc06d89f/2d9f080fa9fca612a804.js</div><div>15delete: s3://*****-b5b9a74a-4566-46c5-9ffa-24b0bc06d89f/224b6d9d16679dab02826a2a7ea705eb.ttf</div><div>16delete: s3://*****-b5b9a74a-4566-46c5-9ffa-24b0bc06d89f/images/6ab15f4239b7d187935cf6f4ec3313bf-kiwi.svg</div><div>17delete: s3://*****-b5b9a74a-4566-46c5-9ffa-24b0bc06d89f/bundle.js</div><div>18delete: s3://*****-b5b9a74a-4566-46c5-9ffa-24b0bc06d89f/2fa692cd55bfc83c228c0ab271e4388c.woff</div><div>19delete: s3://*****-b5b9a74a-4566-46c5-9ffa-24b0bc06d89f/7d234c755f55c47d2c5a.js</div><div>20CircleCI received exit code 0</div></div>			



## Parallel runs

1 / 16 parallel runs ⓘ

0  
04:33

Use parallelism to run faster tests  
Parallelism speeds up tests by splitting them across multiple executors.

Go to Docs

×

Enter your search term

▶  Spin up environment	10s		
▶  Preparing environment variables	0s		
▶  Checkout code	0s		
▶  Install dependencies	7s		
▼  Update cloudfront distribution	4m 15s		

```
1  #!/bin/bash -eo pipefail
2  # your code here
3  aws configure set aws_access_key_id $AWS_ACCESS_KEY_ID
4  aws configure set aws_secret_access_key $AWS_SECRET_ACCESS_KEY
5  aws configure set region $AWS_REGION
6
7  # export OldWorkflowID=$(aws .circleci/files/cloudformation \
8  #   list-exports --query "Exports[?Name==`\WorkflowID`].Value" \
9  #   --no-paginate --output text)
10
11  # echo OldWorkflowID: "${OldWorkflowID}"
12
13  aws cloudformation deploy \
14    --template-file .circleci/files/cloudfront.yml \
15    --stack-name udapeople-cloudfront-production \
16    --parameter-overrides WorkflowID="${CIRCLE_WORKFLOW_ID}" \
17    --tags project=udapeople
18
19
20  Waiting for changeset to be created..
21  Waiting for stack create/update to complete
22  Successfully created/updated stack - *****-cloudfront-production
23  CircleCI received exit code 0
```

Duration / Finished

11s / 12m ago

Queued

0s

Executor / Resource Class

Docker / [Medium](#) ⓘ


Branch

master

Commit

0f78325

Author & Message

 testing bug fixes


STEPS

TESTS ●

ARTIFACTS ●


Parallel runs

1 / 16 parallel runs ⓘ



0

00:11



Use parallelism to run faster tests

Parallelism speeds up tests by splitting them across multiple executors.

Go to Docs


×


▶

✓

 Spin up environment

7s







▶

✓

 Preparing environment variables

0s







▶

✓

 Checkout code

0s







▶

✓

 Get old stack workflow id

2s







▼

✓

 Remove old stacks and files

0s





1

#!/bin/bash -eo pipefail

2

if [[ "\$CurrentWorkflowID" != "\$OldWorkflowID" ]]

3

then

4

# your code here

5

echo "\$OldWorkflowID!=\$CurrentWorkflowID => will delete old version"

6

aws s3 rm "s3://udapeople-\${OldWorkflowID}" --recursive

7

aws cloudformation delete-stack --stack-name "udapeople-frontend-\${OldWorkflowID}"

8

aws cloudformation delete-stack --stack-name "udapeople-backend-\${OldWorkflowID}"

9

aws cloudformation delete-stack --stack-name "udapeople-cloudfront-production"

10

else

11

echo "\$OldWorkflowID==\$CurrentWorkflowID => nothing needs to be done..."

12

fi

13

14

== => nothing needs to be done...

15

CircleCI received exit code 0





**blaxmyth**  
blaxmyth



Dashboard



Projects



Insights



Organization Settings



Plan

Dashboard

Project

Branch

Workflow



All Pipelines



cdond-c3-projectstarter



not-prod



default



**default**



Success

Duration / Finished



4m 50s / 11s ago

Branch



not-prod

Commit



9f71152

Author



blaxmyth



build-frontend

34s



test-frontend

3m 30s



scan-frontend

35s



build-backend

38s



test-backend

50s



scan-backend

25s

☐ Enable query history

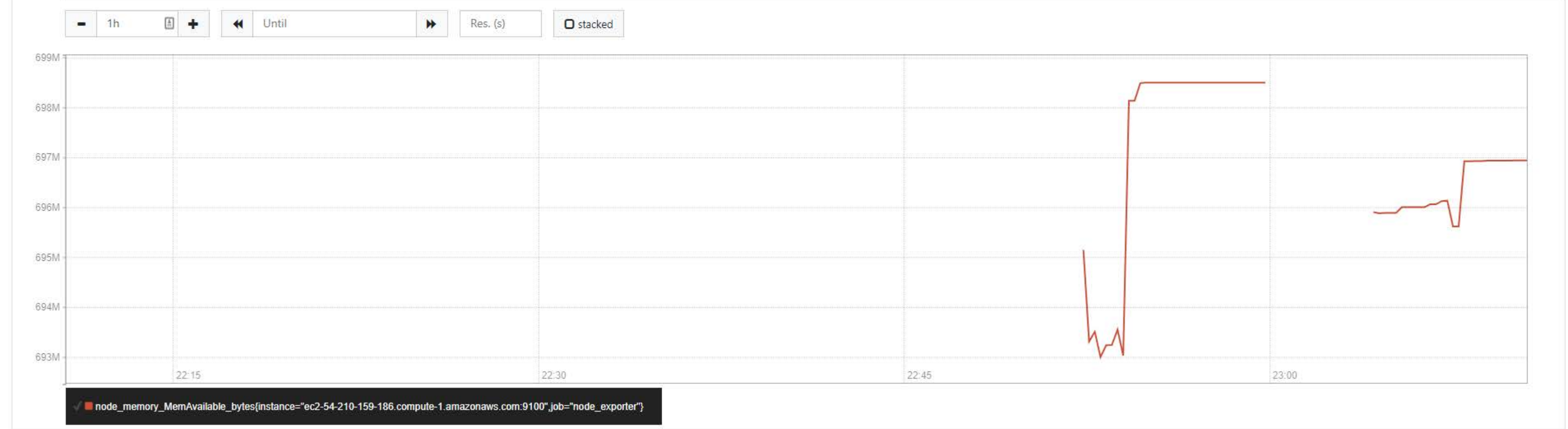
[Try experimental React UI](#)

node\_memory\_MemAvailable\_bytes

Load time: 33ms  
Resolution: 14s  
Total time series: 1

**Execute** node\_memory\_MemAvail ▾

Graph [Console](#)



[Remove Graph](#)

**Add Graph**



# Alerts

Inactive (0) Pending (1) Firing (0)

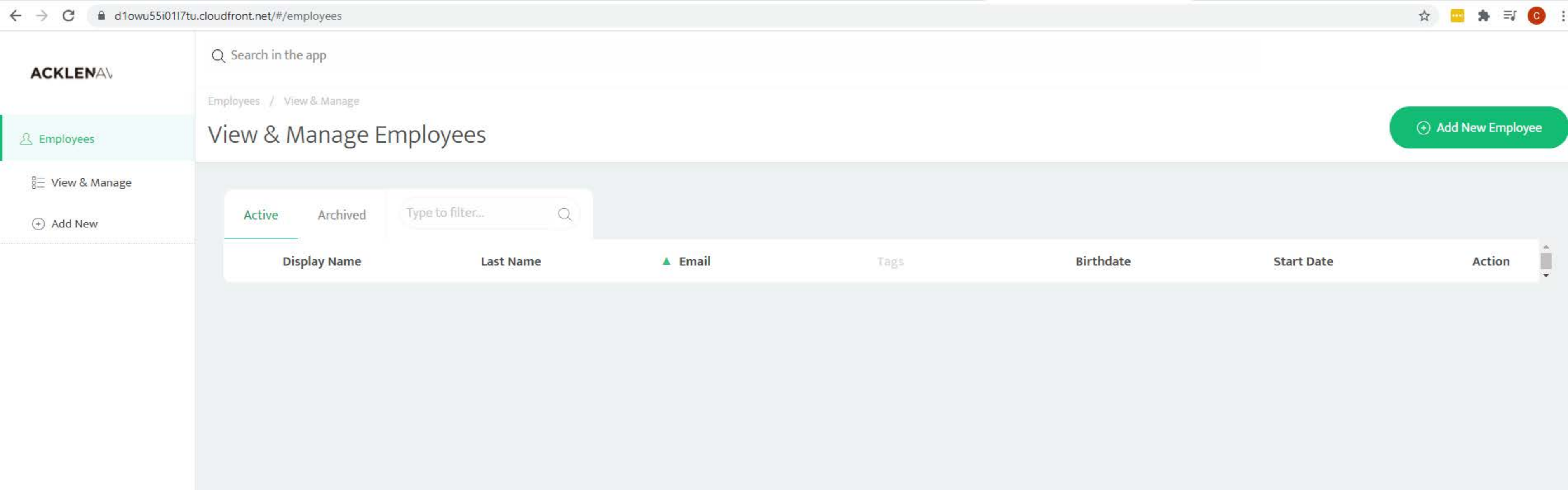
☐ Show annotations

rules.yml > AllInstances

## InstanceDown (1 active)

```
alert: InstanceDown
expr: up == 0
for: 1m
annotations:
  title: Instance {{ $labels.instance }} is down
```

Labels	State	Active Since	Value
alertname="InstanceDown" instance="ec2-54-210-159-186.compute-1.amazonaws.com:9100" job="node_exporter"	PENDING	2021-10-19 23:28:23.326990857 +0000 UTC	0







ec2-34-207-127-19.compute-1.amazonaws.com:3030

# Targets

All Unhealthy

node\_exporter (1/1 up) [show less](#)

Endpoint	State	Labels	Last Scrape	Scrape Duration	Error
<a href="http://ec2-54-210-159-186.compute-1.amazonaws.com:9100/metrics">http://ec2-54-210-159-186.compute-1.amazonaws.com:9100/metrics</a>	UP	<code>instance="ec2-54-210-159-186.compute-1.amazonaws.com:9100"</code> <code>job="node_exporter"</code>	11.62s ago	14.86ms	

prometheus (1/1 up) [show less](#)

Endpoint	State	Labels	Last Scrape	Scrape Duration	Error
<a href="http://localhost:9090/metrics">http://localhost:9090/metrics</a>	UP	<code>instance="localhost:9090"</code> <code>job="prometheus"</code>	10.727s ago	5.551ms	