

## SCREENSHOT01 - Compile Errors

```
Build Back End 7s
```

```
1  #!/bin/bash -eo pipefail
2  cd backend
3  npm run build
4
5
6  > glee2@1.0.0 build /home/circleci/project/backend
7  > tsc
8
9  src/main.ts:31:21 - error TS1005: ',' expected.
10
11  31      .addBearerAuth()x // here is an intentional compile error. Remove the "x" and the backend should compile.
12      ~
13
14  src/main.ts:32:5 - error TS1128: Declaration or statement expected.
15
16  32      .build();
17      ~
18
19  Found 2 errors.
20
21  npm ERR! code ELIFECYCLE
22  npm ERR! errno 2
23  npm ERR! glee2@1.0.0 build: `tsc`
24  npm ERR! Exit status 2
25  npm ERR!
26  npm ERR! Failed at the glee2@1.0.0 build script.
27  npm ERR! This is probably not a problem with npm. There is likely additional log above.
```

```
Test frontend 8m 47s
```

```
8
9  • Deprecation Warning:
10
11  Option "setupTestFrameworkScriptFile" was replaced by configuration "setupFilesAfterEnv", which supports multiple
12
13  Please update your configuration.
14
15  Configuration Documentation:
16  https://jestjs.io/docs/configuration.html
17
18  PASS src/app/components/Empty/Empty.spec.tsx (15.207s)
19  FAIL src/app/components/LoadingMessage/LoadingMessage.spec.tsx (15.966s)
20    • <LoadingMessage> › Props › message › Should render the props message
21
22    expect(received).toBeTruhy()
23
24    Received: false
25
26      9 |         const message = 'Hello!';
27      10 |         const wrapper = shallow(<LoadingMessage message={message} />);
28      > 11 |         expect(wrapper.contains(<span>{message}</span>)).toBeTruhy(); //remove the question mark t
29         |                                     ^
30      12 |     });
31      13 |   });
32      14 | });
33
34    at Object.<anonymous> (app/components/LoadingMessage/LoadingMessage.spec.tsx:11:59)
35    at processTicksAndRejections (../node:internal/process/task_queues:96:5)
36
37  PASS src/app/components/OrdersTable/NoFilteredOrders/NoFilteredOrders.spec.tsx (16.695s)
```

## SCREENSHOT02 - Job failed because of unit tests

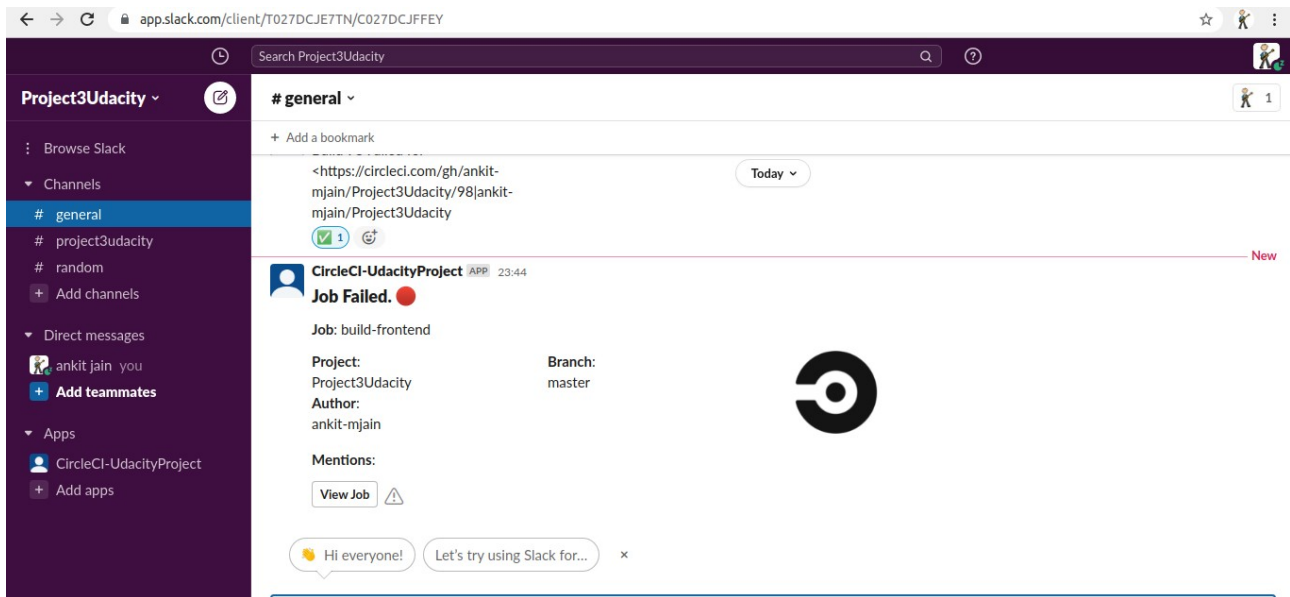
```
Test backend 43s [copy] [download]
173 Summary of all failing tests
174 FAIL src/modules/domain/employees/commands/handlers/employee-activator.handler.spec.ts
175   • Employee Remover › when a user activates an employee › should activate the employee from the repository
176
177     expect(jest.fn()).toBeCalledWith(...expected)
178
179     Expected: 100
180     Received: 101
181
182     Number of calls: 1
183
184     33 |
185     34 |         // Assert
186   > 35 |         expect(employeeRepository.findById).toBeCalledWith(100);
187       |                                         ^
188
189     36 |         expect(employeeRepository.save).toBeCalled();
190     37 |     });
191     38 | });
192
193     at src/modules/domain/employees/commands/handlers/employee-activator.handler.spec.ts:35:43
194     at fulfilled (src/modules/domain/employees/commands/handlers/employee-activator.handler.spec.ts:5:58)
195
196
197 Test Suites: 1 failed, 50 passed, 51 total
198 Tests:      1 failed, 78 passed, 79 total
199 Snapshots:  0 total
200 Time:       42.323s
201 Ran all test suites.
```

## SCREENSHOT03 - Job that failed because of vulnerable packages - Updated

```
scan frontend 57s [copy] [download]
1 #!/bin/bash -eo pipefail
2 cd frontend
3 npm audit fix --audit-level=critical --force
4
5 npm WARN using --force I sure hope you know what you are doing.
6 npm WARN deprecated chokidar@2.1.8: Chokidar 2 will break on node v14+. Upgrade to chokidar 3 with 15x less dependencies.
7 npm WARN deprecated fsevents@1.2.13: fsevents 1 will break on node v14+ and could be using insecure binaries. Upgrade to fsevents 2.
8 npm WARN deprecated uuid@3.4.0: Please upgrade to version 7 or higher. Older versions may use Math.random() in certain circumstances
9 npm WARN ts-jest@27.0.3 requires a peer of typescript@>=3.8 <5.0 but none is installed. You must install peer dependencies yourself.
10 npm WARN html-loader@2.1.2 requires a peer of webpack@^5.0.0 but none is installed. You must install peer dependencies yourself.
11 npm WARN html-webpack-plugin@5.3.2 requires a peer of webpack@^5.20.0 but none is installed. You must install peer dependencies yourself
12
13 + axios@0.21.1
14 + ts-jest@27.0.3
15 + html-loader@2.1.2
16 + webpack-dev-server@3.11.2
17 + html-webpack-plugin@5.3.2
18 + postcss@7.0.36
19 + jest@27.0.6
20 added 378 packages from 145 contributors, removed 456 packages, updated 246 packages and moved 11 packages in 41.784s
21
22 41 packages are looking for funding
23   run `npm fund` for details
24
25 fixed 59899 of 59905 vulnerabilities in 1896 scanned packages
26 6 vulnerabilities required manual review and could not be updated
27 4 package updates for 493 vulnerabilities involved breaking changes
28   (installed due to '--force' option)
29 CircleCI received exit code 0
```

## SCREENSHOT04 – Slack Notifications

An alert from one of your failed builds



## SCREENSHOT05



✔ Install dependencies

5s



❗ Deploy backend

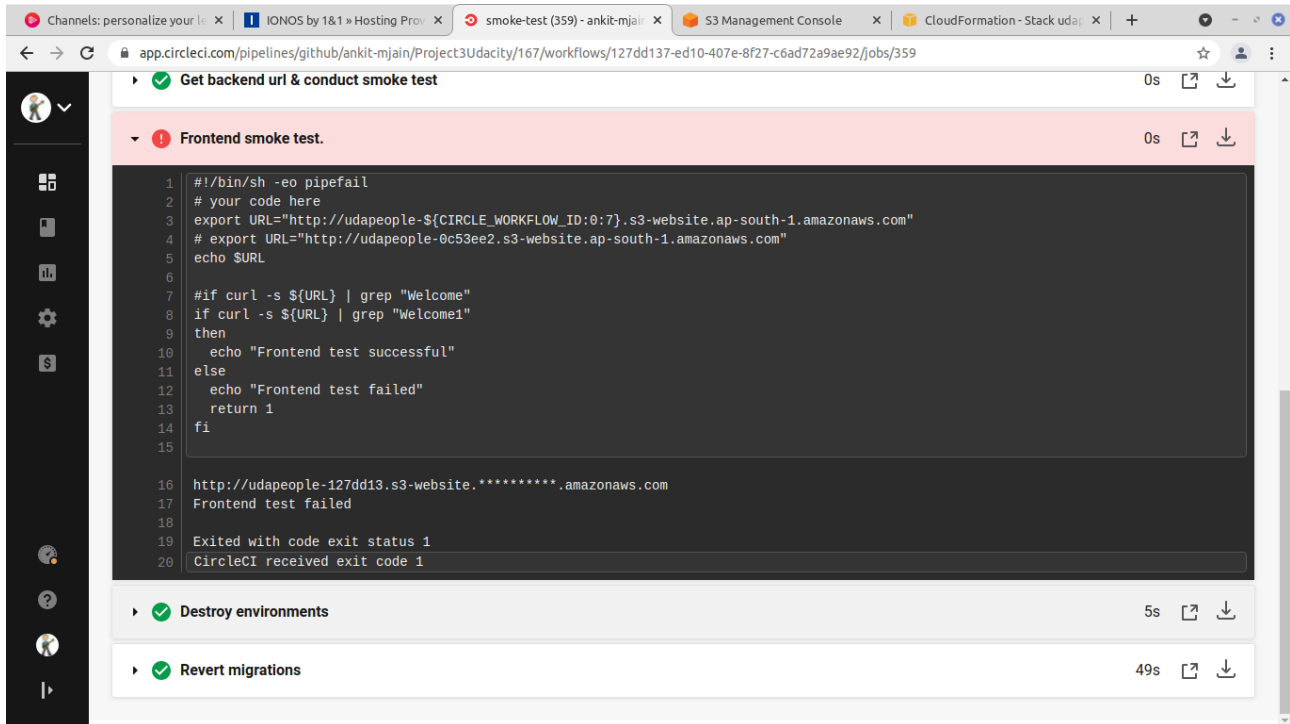
0s



```
275 ./src/modules/domain/orders/events/
276 ./src/modules/domain/orders/events/ProductAddedToOrder.ts
277 ./src/modules/domain/orders/events/handlers/
278 ./src/modules/domain/orders/events/handlers/index.ts
279 ./src/modules/domain/orders/events/handlers/notify-product-add-to-order-console.ts
280 ./src/modules/domain/orders/orders.controller.spec.ts
281 ./src/modules/domain/orders/orders.controller.ts
282 ./src/modules/domain/orders/orders.module.ts
283 ./src/modules/domain/orders/repositories/
284 ./src/modules/domain/orders/repositories/orderRepository.ts
285 ./src/modules/domain/orders/repositories/productRepository.ts
286 ./src/modules/domain/orders/requests/
287 ./src/modules/domain/orders/requests/PaginatedOrderQuery.ts
288 ./src/modules/domain/orders/requests/orderRequest.ts
289 ./src/modules/domain/orders/requests/paginatedProductQuery.ts
290 ./src/modules/errors/
291 ./src/modules/errors/error.filter.ts
292 ./src/modules/status/
293 ./src/modules/status/status.controller.spec.ts
294 ./src/modules/status/status.controller.ts
295 ./src/modules/status/status.module.ts
296 ./test/
297 ./test/app.e2e-spec.ts
298 ./test/jest-e2e.json
299 ./tsconfig.json
300 ./tsconfig.spec.json
301 ./tslint.json
```

```
292 ./src/modules/status/
293 ./src/modules/status/status.controller.spec.ts
294 ./src/modules/status/status.controller.ts
295 ./src/modules/status/status.module.ts
296 ./test/
297 ./test/app.e2e-spec.ts
298 ./test/jest-e2e.json
299 ./tsconfig.json
300 ./tsconfig.spec.json
301 ./tslint.json
302 ./webpack.config.js
303 ./env
304 tar: .: file changed as we read it
305
306 Exited with code exit status 1
307 CircleCI received exit code 1
```

## SCREENSHOT06 – Appropriate job failure for the smoke test job

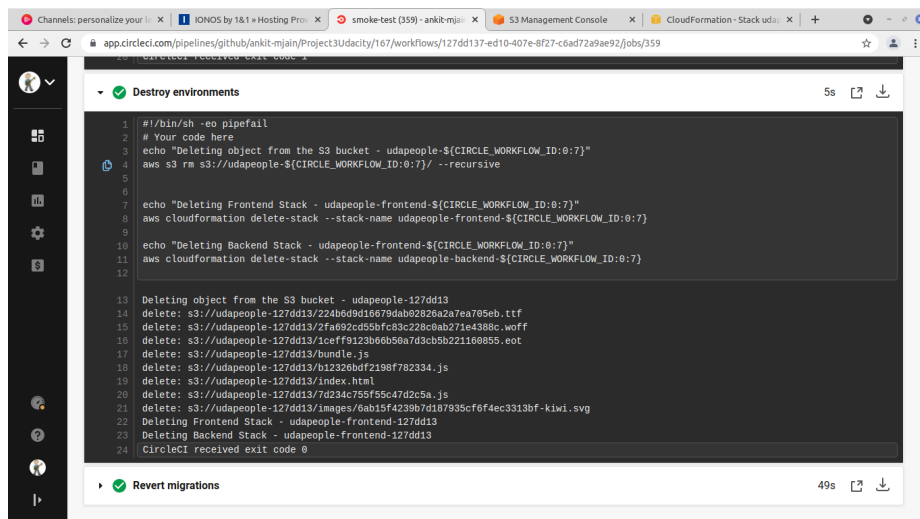


The screenshot displays a CircleCI pipeline job titled "smoke-test (359) - ankit-mjain". The job is currently running, and the "Frontend smoke test" step has failed. The failure is indicated by a red exclamation mark icon and a red background for the step header. The step's duration is 0s. The job's overall status is "Failed", indicated by a red circle with a white exclamation mark in the top left corner of the interface.

The "Frontend smoke test" step contains the following script:

```
1 #!/bin/sh -eo pipefail
2 # your code here
3 export URL="http://udapeople-${CIRCLE_WORKFLOW_ID:0:7}.s3-website.ap-south-1.amazonaws.com"
4 # export URL="http://udapeople-0c53ee2.s3-website.ap-south-1.amazonaws.com"
5 echo $URL
6
7 #if curl -s ${URL} | grep "Welcome"
8 if curl -s ${URL} | grep "Welcome1"
9 then
10     echo "Frontend test successful"
11 else
12     echo "Frontend test failed"
13     return 1
14 fi
15
16 http://udapeople-127dd13.s3-website.*****.amazonaws.com
17 Frontend test failed
18
19 Exited with code exit status 1
20 CircleCI received exit code 1
```

The output of the script shows that the "Frontend test failed" message was printed, and the job exited with status 1. The "Destroy environments" step is shown as completed with a duration of 5s. The "Revert migrations" step is also shown as completed with a duration of 49s.



The screenshot displays the "Destroy environments" step of the CircleCI pipeline job. The step is completed, indicated by a green checkmark icon and a green background for the step header. The step's duration is 5s. The job's overall status is "Failed", indicated by a red circle with a white exclamation mark in the top left corner of the interface.

The "Destroy environments" step contains the following script:

```
1 #!/bin/sh -eo pipefail
2 # Your code here
3 echo "Deleting object from the S3 bucket - udapeople-${CIRCLE_WORKFLOW_ID:0:7}"
4 aws s3 rm s3://udapeople-${CIRCLE_WORKFLOW_ID:0:7}/ --recursive
5
6
7 echo "Deleting Frontend Stack - udapeople-frontend-${CIRCLE_WORKFLOW_ID:0:7}"
8 aws cloudformation delete-stack --stack-name udapeople-frontend-${CIRCLE_WORKFLOW_ID:0:7}
9
10 echo "Deleting Backend Stack - udapeople-frontend-${CIRCLE_WORKFLOW_ID:0:7}"
11 aws cloudformation delete-stack --stack-name udapeople-backend-${CIRCLE_WORKFLOW_ID:0:7}
12
13
14 Deleting object from the S3 bucket - udapeople-127dd13
15 delete: s3://udapeople-127dd13/224b6d9d16679dab02826a2a7ea705eb.ttf
16 delete: s3://udapeople-127dd13/2fa692cd5bfc83c228c8ab271e4388c.woff
17 delete: s3://udapeople-127dd13/1cef9123b66b50a7d3cb5b221109055.eot
18 delete: s3://udapeople-127dd13/bundle.js
19 delete: s3://udapeople-127dd13/b1232bdf2198f782334.js
20 delete: s3://udapeople-127dd13/index.html
21 delete: s3://udapeople-127dd13/7d234c755f55c47d2c5a.js
22 delete: s3://udapeople-127dd13/images/6ab15f4239b7d187935cf6f4ec3313bf-kiwi.svg
23 Deleting Frontend Stack - udapeople-frontend-127dd13
24 Deleting Backend Stack - udapeople-frontend-127dd13
25 CircleCI received exit code 0
```

The output of the script shows that the "Deleting object from the S3 bucket" and "Deleting Frontend Stack" and "Deleting Backend Stack" messages were printed, and the job exited with status 0. The "Revert migrations" step is shown as completed with a duration of 49s.

## SCREENSHOT07 – Successful rollback after a failed smoke test.

The screenshot shows a CircleCI pipeline interface with the following steps:

- Frontend smoke test.** (0s) - Failed, indicated by a red exclamation mark icon.
- Destroy environments** (5s) - Completed, indicated by a green checkmark icon.
- Revert migrations** (49s) - Completed, indicated by a green checkmark icon.

The terminal output for the 'Revert migrations' step is as follows:

```
36 23 packages are looking for funding
37   run 'npm fund' for details
38
39
40 found 55743 vulnerabilities (38640 low, 113 moderate, 16987 high, 3 critical)
41   run 'npm audit fix' to fix them, or 'npm audit' for details
42
43 > glee2@1.0.0 premigrations:revert /root/project/backend
44 > npm run build
45
46
47 > glee2@1.0.0 build /root/project/backend
48 > tsc
49
50
51 > glee2@1.0.0 migrations:revert /root/project/backend
52 > ts-node -r dotenv/config node_modules/.bin/typeorm migration:revert
53
54 query: SELECT * FROM "information_schema"."tables" WHERE "table_schema" = current_schema() AND "table_name" = 'migrations'
55 query: SELECT * FROM "migrations" "migrations" ORDER BY "id" DESC
56 3 migrations are already loaded in the database.
57 AddEmployee1555722583168 is the last executed migration. It was executed on Sat Apr 20 2019 01:09:43 GMT+0000 (Coordinated Universal Time)
58 Now reverting it...
59 query: START TRANSACTION
60 query: DROP INDEX "IDX_d6c66c08b9c7e84a1b657797df"
61 query: DROP INDEX "IDX_1f9ea9b9a59a6d98ade4f2d45a9"
```

The screenshot shows a CircleCI pipeline interface with the following steps:

- Spin up environment** (3s) - Completed, indicated by a green checkmark icon.
- Preparing environment variables** (0s) - Completed, indicated by a green checkmark icon.
- Checkout code** (0s) - Completed, indicated by a green checkmark icon.
- Install dependencies** (12s) - Completed, indicated by a green checkmark icon.
- Update cloudfront distribution** (8m 21s) - Completed, indicated by a green checkmark icon.

The terminal output for the 'Update cloudfront distribution' step is as follows:

```
1 #!/bin/sh -eo pipefail
2 # your code here
3 aws cloudformation deploy \
4   --template-file .circleci/files/cloudfront.yml \
5   --tags project=udapeople \
6   --stack-name "udapeople-cloudfront-${CIRCLE_WORKFLOW_ID:0:7}" \
7   --parameter-overrides WorkflowID="${CIRCLE_WORKFLOW_ID:0:7}"
8
9
10 Waiting for changeset to be created..
11 Waiting for stack create/update to complete
12 Successfully created/updated stack - udapeople-cloudfront-8ee178e
13 CircleCI received exit code 0
```

SCREENSHOT08

cloudfront-update

Success

Rerun

Duration / Finished

Queued

Executor

Branch

Commit

Author & Message

3m 29s / 10h ago

0s

Docker Medium

master

6463e1b

added cloudformation template

STEPS

TESTS

ARTIFACTS

1 / 4 parallel runs

Spin up environment

2s

Preparing environment variables

0s

Checkout code

0s

Install dependencies

12s

Update cloudfront distribution

3m 14s

# SCREENSHOT09 - Successful cleanup job

cleanup Success

Rerun

...

Duration / Finished	Queued	Executor	Branch	Commit	Author & Message
🕒 21s / 1s ago	🕒 0s	Docker Medium	master	47678c5	added cleanup

STEPS	TESTS	ARTIFACTS
1 / 4 parallel runs		
▶  Spin up environment		2s
▶  Preparing environment variables		0s
▶  Checkout code		0s
▶  Install dependencies		7s
▶  Get old stack workflow id & remove the stacks		10s

```
29
30 echo "Deleting S3 bucket"
31 aws s3 rb s3://udapeople-${OldWorkflowID} --force
32
33 echo "Deleting backend stack"
34 aws cloudformation delete-stack --stack-name "udapeople-backend-${OldWorkflowID}"
35
36 echo "Deleting frontend stack"
37 aws cloudformation delete-stack --stack-name "udapeople-frontend-${OldWorkflowID}"
38 else
39 echo "Nothing to Cleanup"
40 fi
41
42 OldWorkflowID 7244004
43 WorkflowID dd9b0c2
44 STACKS udapeople-frontend-d888329 udapeople-backend-d888329 udapeople-backend-e23b68e udapeople-frontend-7244004 udapeople-backend-7244004
45 Inside If of Cleanup
46 Deleting S3 bucket objects
47 delete: s3://udapeople-7244004/1ceff9123b66b50a7d3cb5b221160855.eot
48 delete: s3://udapeople-7244004/224b6d9d16679dab02826a2a7ea705eb.ttf
49 delete: s3://udapeople-7244004/2fa692cd55bfc83c228c0ab271e4388c.woff
50 delete: s3://udapeople-7244004/images/6ab15f4239b7d187935cf6f4ec3313bf-kiwi.svg
51 delete: s3://udapeople-7244004/5e068be50f79521a20cc.js
52 delete: s3://udapeople-7244004/7d234c755f55c47d2c5a.js
53 delete: s3://udapeople-7244004/bundle.js
54 delete: s3://udapeople-7244004/index.html
55 Deleting S3 bucket
56 remove_bucket: udapeople-7244004
57 Deleting backend stack
58 Deleting frontend stack
59 CircleCI received exit code 0
```



SCREENSHOT10

Only deploy on pushed to `master` branch.

Project3Udacity

Add team members

Edit Config

Run Pipeline

Project Settings

Filters

Everyone's Pipelines

Project3Udacity

All Branches

Auto-expand

Pipeline	Status	Workflow	Branch / Commit	Start	Duration	Actions
Project3Udacity 196	Success	default	feature be637f2 added cleanup	6m ago	5m 38s	
<div>Jobs</div> <div><div>build-frontend 471</div><div>test-frontend 473</div><div>scan-frontend 475</div><div>build-backend 470</div><div>test-backend 472</div><div>scan-backend 474</div></div>						
Project3Udacity 195	CREATED	No workflow	feature 756b4dc	7m ago	-	
Project3Udacity 194	Success	default	master 47678c5 added cleanup	11m ago	24s	

SCREENSHOT11

Provide a screenshot of a graph of your EC2 instance including available memory, available disk space, and CPU usage

Prometheus

Alerts

Graph

Status

Help

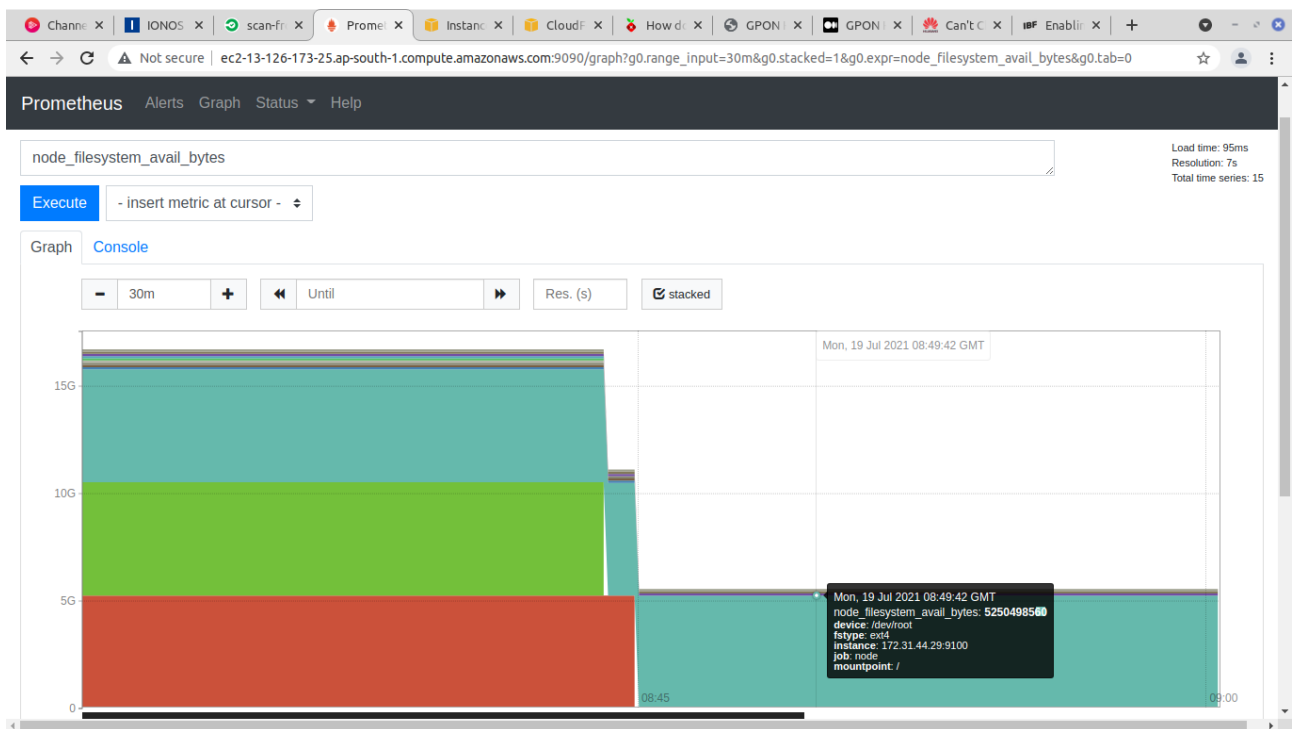
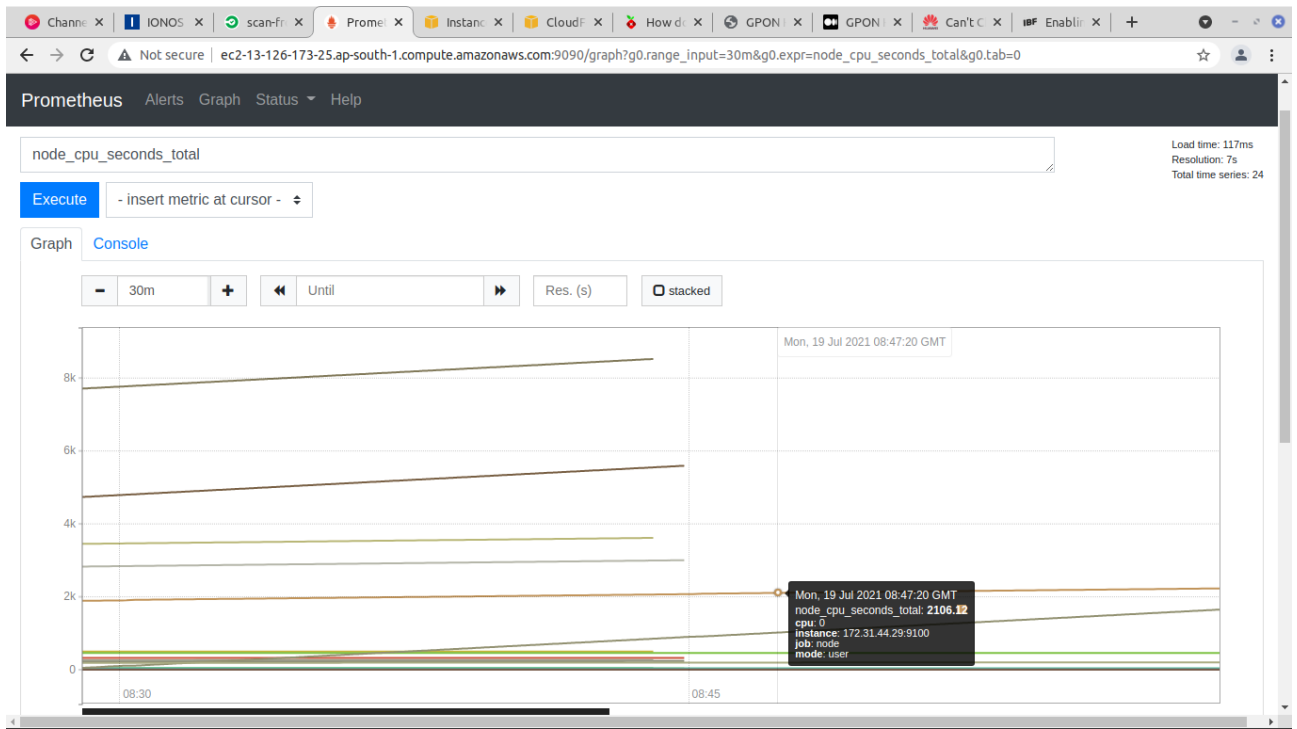
Targets

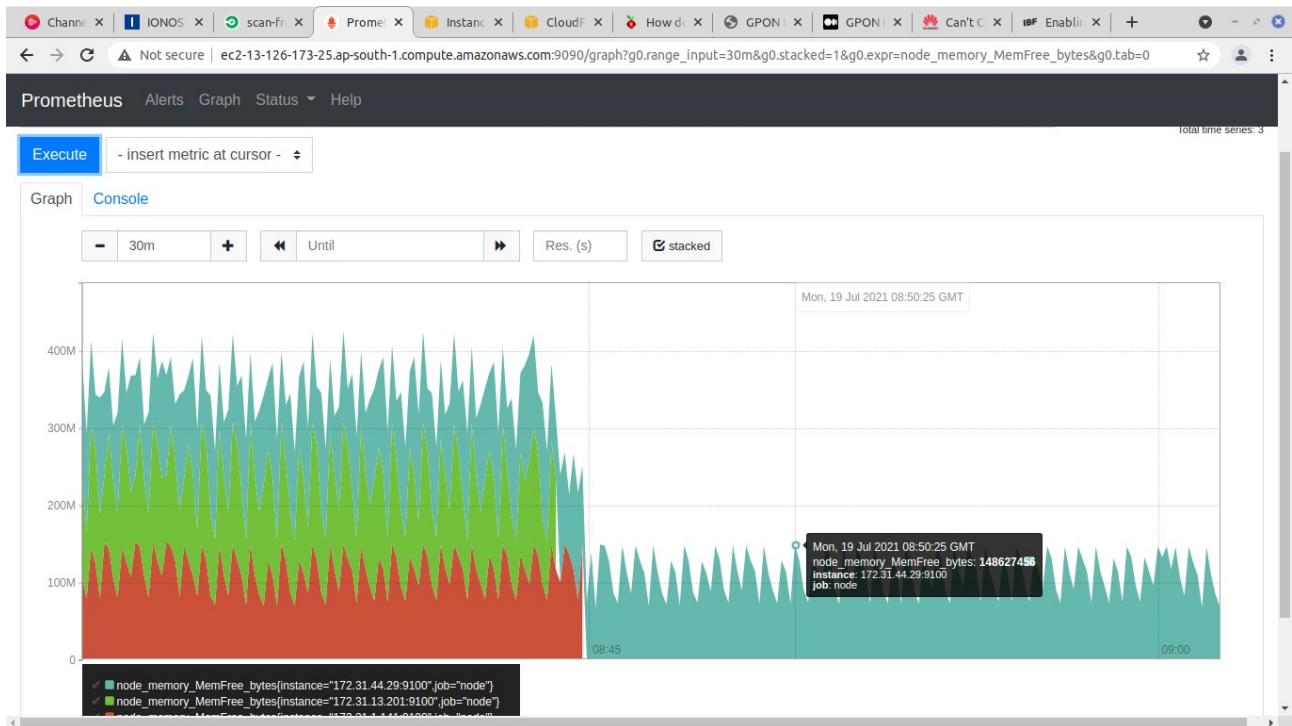
All

Unhealthy

node (2/4 up) show less

Endpoint	State	Labels	Last Scrape	Scrape Duration	Error
http://172.31.42.254:9100/metrics	DOWN	instance="172.31.42.254:9100" job="node"	4.821s ago	354.1us	Get "http://172.31.42.254:9100/metrics": dial tcp 172.31.42.254:9100: connect: connection refused
http://172.31.44.29:9100/metrics	UP	instance="172.31.44.29:9100" job="node"	3.182s ago	115ms	
http://ec2-13-127-27-164.ap-south-1.compute.amazonaws.com:9090/metrics	DOWN	instance="ec2-13-127-27-164.ap-south-1.compute.amazonaws.com:9090" job="node"	7.528s ago	5s	Get "http://ec2-13-127-27-164.ap-south-1.compute.amazonaws.com:9090/metrics": context deadline exceeded
http://localhost:9090/metrics	UP	instance="localhost:9090" job="node"	1.13s ago	6.07ms	





EC2 > Instances > i-06da75866888bb388

<b>Instance summary for i-06da75866888bb388 (udapeople-backend-2e2b181)</b> <a href="#">Info</a> <a href="#">Refresh</a> <a href="#">Connect</a> <a href="#">Instance state ▼</a>		
Updated less than a minute ago		
Instance ID <a href="#">i-06da75866888bb388 (udapeople-backend-2e2b181)</a>	Public IPv4 address <a href="#">13.233.216.12   open address</a>	Private IPv4 addresses <a href="#">172.31.44.29</a>
Instance state <span>Running</span>	Public IPv4 DNS <a href="#">ec2-13-233-216-12.ap-south-1.compute.amazonaws.com   open address</a>	Private IPv4 DNS <a href="#">ip-172-31-44-29.ap-south-1.compute.internal</a>
Instance type <b>t2.micro</b>	Elastic IP addresses -	VPC ID <a href="#">vpc-91fe05fa (Default VPC)</a>
AWS Compute Optimizer finding <a href="#">Opt-in to AWS Compute Optimizer for recommendations.   Learn more</a>	IAM Role -	Subnet ID <a href="#">subnet-14a9497f</a>

SCREENSHOT12

Provide a screenshot of an alert that was sent by Prometheus.

Services

Search for services, features, marketplace products, and docs

MyAWSAcnt4Udacity

Mumbai

Support

New EC2 Experience

EC2 Dashboard

Events

Tags

Limits

Instances

Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts

Capacity Reservations

Images

AMIs

Elastic Block Store

Volumes

Consoles

Instances (1/4)

Filter instances

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
<input type="checkbox"/>	udapeople_pr...	i-0f41d50b185025840	Running	t2.micro	2/2 checks passed	No alarms	ap-south-1a
<input checked="" type="checkbox"/>	udapeople-ba...	i-06da75866888bb388	Running	t2.micro	Initializing	No alarms	ap-south-1a
<input type="checkbox"/>	udapeople-ba...	i-03952989f3b177495	Terminated	t2.micro	-	No alarms	ap-south-1b
<input type="checkbox"/>	udapeople-ba...	i-0e455a291555ccd10	Terminated	t2.micro	-	No alarms	ap-south-1b

Instance: i-06da75866888bb388 (udapeople-backend-2e2b181)

Instance summary

Instance ID	Public IPv4 address	Private IPv4 addresses
i-06da75866888bb388 (udapeople-backend-2e2b181)	3.109.48.55   open address	172.31.44.29
Instance state	Public IPv4 DNS	Private IPv4 DNS
Running	ec2-3-109-48-55.ap-south-1.compute.amazonaws.com   open address	ip-172-31-44-29.ap-south-1.compute.internal
Instance type	Elastic IP addresses	VPC ID
t2.micro	-	vpc-91fe05fa (Default VPC)
AWS Compute Optimizer finding	IAM Role	Subnet ID

alertname="InstanceDown" instance="172.31.44.29:9100" job="node" severity="critical" PENDING 2021-07-19 09:39:54.214668377 +0000 UTC 0

Annotations

description

172.31.44.29:9100 of job node has been down for more than 1 minutes.

summary

Instance,172.31.44.29:9100 is down

## # project3udacity

Description: 172.31.42.254:9100 of job node has been down for more than 1 minutes.

Details:

• alertname: InstanceDown

• instance: 172.31.42.254:9100

Show more

[FIRING:3] InstanceDown for node (alertname="InstanceDown", job="node", monitor="prometheus", severity="critical")

Graph

Alert details:

Alert: - critical

Description: 172.31.42.254:9100 of job node has been down for more than 1 minutes.

Details:

• alertname: InstanceDown

• instance: 172.31.42.254:9100

• job: node

• monitor: prometheus

• severity: critical

Alert: - critical

Description: ec2-13-127-27-164.ap-south-1.compute.amazonaws.com:9090 of job node has been down for more than 1 minutes. Details:

• alertname: InstanceDown

• instance: ec2-13-127-27-164.ap-south-1.compute.amazonaws.com:9090

• job: node

• monitor: prometheus

• severity: critical