



# AWS CLOUD DEVOPS UDACITY NANODEGREE 2022-2023

AHMED ALSAWI

The screenshot displays a web browser window with the CircleCI interface. The left sidebar shows the user profile 'AhmedRAlsawi' and navigation links for Dashboard, Projects, Insights, Organization Settings, and Plan. A promotional banner for 'CI behind your firewall' is also visible. The main content area shows a failed pipeline run titled 'Back-end build' with a duration of 27s. The terminal output shows the following commands and errors:

```
28 run `npm audit fix` to fix them, or `npm audit` for details
29
30 > glee2@1.0.0 build /home/circleci/project/backend
31 > tsc
32
33 src/main.ts:31:21 - error TS1005: ',' expected.
34
35 31   .addBearerAuth({x // here is an intentional compile error. Remove the "x" and the backend should compile.
36
37
38 src/main.ts:32:5 - error TS1128: Declaration or statement expected.
39
40 32   .build();
41
42
43
44 Found 2 errors.
45
46 npm ERR! code ELIFECYCLE
47 npm ERR! errno 2
48 npm ERR! glee2@1.0.0 build: `tsc`
49 npm ERR! Exit status 2
50 npm ERR!
51 npm ERR! Failed at the glee2@1.0.0 build script.
52 npm ERR! This is probably not a problem with npm. There is likely additional logging output above.
53
54 npm ERR! A complete log of this run can be found in:
55 npm ERR!     /home/circleci/.npm/_logs/2022-09-21T23_36_25_115Z-debug.log
56
```

The Windows taskbar at the bottom shows the time as 2:10 AM and the language as ENG.

SCREENSHOT01 EXAMPLE

Pipelines - AhmedRAIsawi/cdond... build-backend (4) - AhmedRAIsa... test-backend (13) - AhmedRAIsa... AhmedRAIsawi/cdond-c3-projec...

app.circleci.com/pipelines/github/AhmedRAIsawi/cdond-c3-projectstarter/7/workflows/ff81d0c1-7229-4d86-bc73-bd489b9eead5/jobs/13

ItiUI Software Testing AWS CSS reference - CSS... font | CSS-Tricks Cloud July Cohort How Items Flow Int... W3Schools CSS alig... Ahmed Raafat Demo My API Settings —...

**AhmedRAIsawi**  
Ahmed Alsawi

- Dashboard
- Projects
- Insights
- Organization Settings
- Plan

CI behind your firewall just got easier

A more scalable, container friendly self-hosted runner is now in open preview

Notifications

### Run back-end

40s

```
275
276     33 |
277     34 |         // Assert
278     > 35 |         expect(employeeRepository.findById).toBeCalledWith(100);
279         |                                     ^
280     36 |         expect(employeeRepository.save).toBeCalled();
281     37 |     });
282     38 | });
283
284     at src/modules/domain/employees/commands/handlers/employee-activator.handler.spec.ts:35:43
285     at fulfilled (src/modules/domain/employees/commands/handlers/employee-activator.handler.spec.ts:5:58)
286
287
288 Test Suites: 1 failed, 50 passed, 51 total
289 Tests:      1 failed, 78 passed, 79 total
290 Snapshots:  0 total
291 Time:        32.573s
292 Ran all test suites.
293 npm ERR! code ELIFECYCLE
294 npm ERR! errno 1
295 npm ERR! glee2@1.0.0 test: `jest --runInBand`
296 npm ERR! Exit status 1
297 npm ERR!
298 npm ERR! Failed at the glee2@1.0.0 test script.
299 npm ERR! This is probably not a problem with npm. There is likely additional logging output above.
300
301 npm ERR! A complete log of this run can be found in:
302 npm ERR!     /home/circleci/.npm/_logs/2022-09-21T23_56_57_771Z-debug.log
303
```

Windows taskbar: File Explorer, Chrome, Firefox, VS Code, Telegram, WhatsApp, Discord, Spotify, Task Manager, Settings, Network, Volume, ENG, 2:10 AM

SCREENSHOT02 EXAMPLE

scan-backend (35) - AhmedRAlsa...AhmedRAlsa

AhmedRAlsa/cdond-c3-projec

app.circedi.com/pipelines/github/AhmedRAlsa/cdond-c3-projectstarter/11/workflows/d616f274-946b-4a0f-aa89-cdaa8d38959b/jobs/35

ItiUISoftware TestingAWSMCSS reference - CSS...font | CSS-TricksCloud July CohortHow Items Flow Int...W3Schools CSS align...Ahmed Raafat DemoMy API Settings —...

AhmedRAlsa

Ahmed Alsa

Dashboard

Projects

Insights

Organization Settings

Plan

CI behind your firewall just got easier

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Notifications

Scan back-end dependencies53s

Manual Review

Some vulnerabilities require your attention to resolve

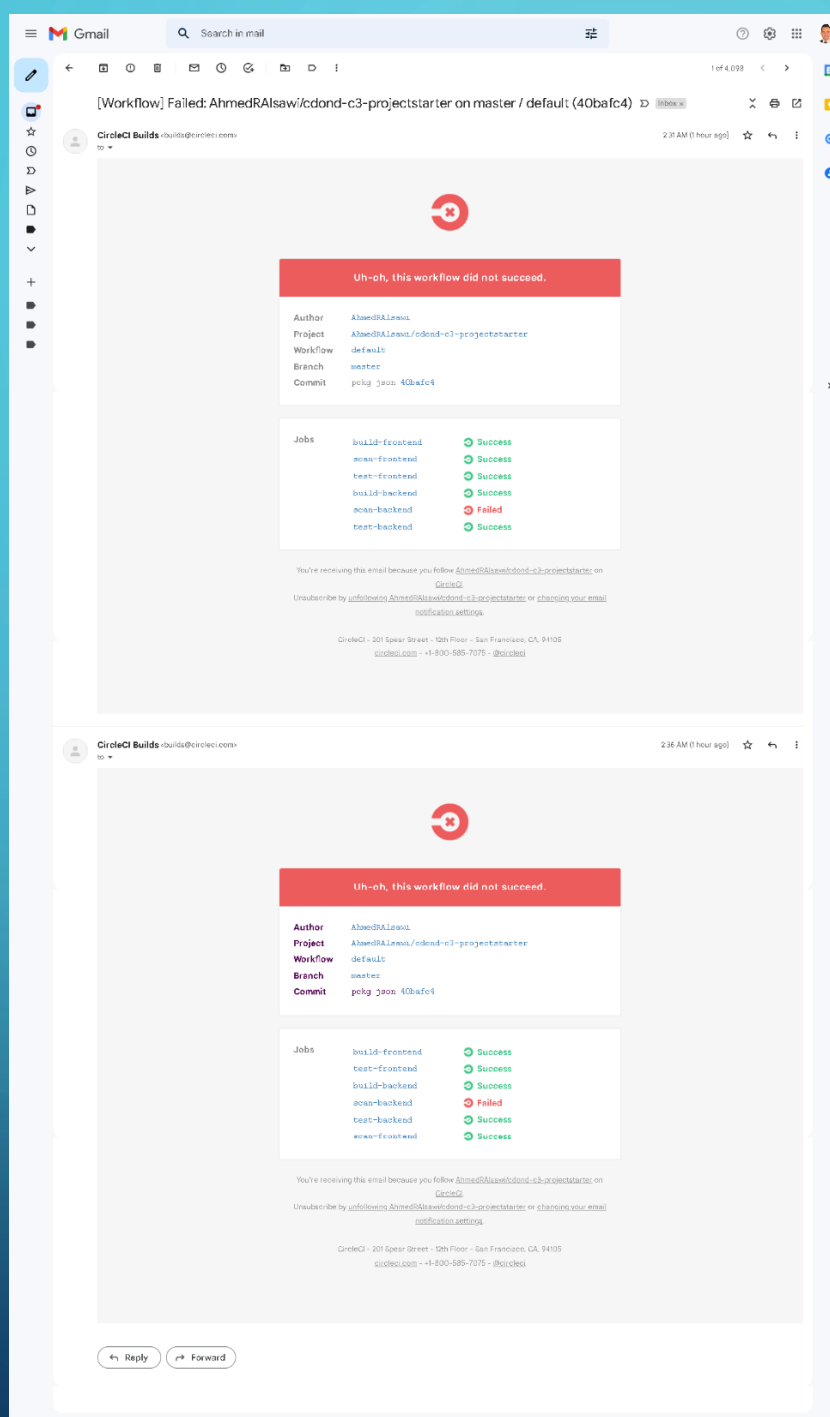
Visit <https://go.npm.me/audit-guide> for additional guidance

Critical	Prototype Pollution in minimist
Package	minimist
Patched in	>=1.2.6
Dependency of	@nestjs/platform-express
Path	@nestjs/platform-express > multer > mkdirp > minimist
More info	<a href="https://github.com/advisories/GHSA-xvch-5gv4-984h">https://github.com/advisories/GHSA-xvch-5gv4-984h</a>


Moderate	Prototype Pollution in minimist
Package	minimist
Patched in	>=0.2.1
Dependency of	@nestjs/platform-express

Windows taskbar with icons for Start, Search, Task View, Firefox, Chrome, VS Code, Telegram, and File Explorer. System tray shows network, volume, and language (ENG) settings, along with the time 2:31 AM.

SCREENSHOT03 EXAMPLE



SCREENSHOT04 EXAMPLE



**AhmedRalsawi**  
Ahmed Alsawi

Dashboard

Projects

Insights

Organization Settings

Plan

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just got easier

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**container friendly self-hosted runner** is now in  
open preview

Notifications

smoke-test (357) - AhmedRalsawi




CloudFormation - Stack udapeop




S3 Management Console




Instances | EC2 Management Con

app.circedi.com/pipelines/github/AhmedRalsawi/cdond-c3-projectstarter/74/workflows/e3525f12-44db-4524-b254-503302416f80/...




ItiUi Software Testing AWS CSS reference - CSS... font | CSS-Tricks Cloud July Cohort How Items Flow Int... W3Schools CSS align... Ahmed Raafat Demo My API Settings

▶  **Install dependencies** 2s  

▶  **Backend smoke test.** 0s  


▼  **Frontend smoke test.** 0s  

```
1  #!/bin/sh -eo pipefail
2  URL="http://udapeople-${CIRCLE_WORKFLOW_ID:0:7}.s3-website-us-east-1.amazonaws.com/#/employees"
3  echo ${URL}
4  if curl -s ${URL} | grep "Welcome"
5  then
6      # Change this to 0 after the job fails
7      return 1
8  else
9      return 1
10 fi
11
12 http://udapeople-e3525f1.s3-website-*****.amazonaws.com/#/employees
13     Welcome
14
15 Exited with code exit status 1
16 CircleCI received exit code 1
```

▶  **Revert migrations** 0s  

Windows taskbar with icons for File Explorer, Edge, Firefox, VS Code, and other applications. System tray shows network, volume, and language (ENG) settings, along with the time 11:47 PM.

SCREENSHOT06 EXAMPLE

**AhmedRalsawi**  
Ahmed Alsawi

Dashboard

Projects

Insights

Organization Settings

Plan

CI behind your firewall  
just got easier  
  
A more scalable,  
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open preview

Notifications

smoke-test (357) - AhmedRalsawi

CloudFormation - Stack udapeop




S3 Management Console




Instances | EC2 Management Con




+

app.circedi.com/pipelines/github/AhmedRalsawi/cdond-c3-projectstarter/74/workflows/e3525f12-44db-4524-b254-503302416f80/...




ItiUi Software Testing AWS CSS reference - CSS... font | CSS-Tricks Cloud July Cohort How Items Flow Int... W3Schools CSS align... Ahmed Raafat Demo My API Settings —...

▶  **Install dependencies** 2s  

▶  **Backend smoke test.** 0s  

▼  **Frontend smoke test.** 0s  

```
1  #!/bin/sh -eo pipefail
2  URL="http://udapeople-${CIRCLE_WORKFLOW_ID:0:7}.s3-website-us-east-1.amazonaws.com/#/employees"
3  echo ${URL}
4  if curl -s ${URL} | grep "Welcome"
5  then
6      # Change this to 0 after the job fails
7      return 1
8  else
9      return 1
10 fi
11
12 http://udapeople-e3525f1.s3-website-*****.amazonaws.com/#/employees
13     Welcome
14
15 Exited with code exit status 1
16 CircleCI received exit code 1
```

▶  **Revert migrations** 0s  

Windows taskbar: Windows logo, Search, Task View, Firefox, Chrome, VS Code, WhatsApp, Telegram, File Explorer, Settings, System tray (Network, Volume, ENG, 11:47 PM, Notifications)

SCREENSHOT07 EXAMPLE


The screenshot shows a web browser window with several tabs open: 'cloudfront-update (377) - Ahmed...', 'CloudFormation - Stack', 'S3 Management Console', and 'Instances | EC2 Management Console'. The active tab is 'cloudfront-update (377) - Ahmed...', displaying a CircleCI pipeline job. The job title is 'Update cloudfront distribution' with a green checkmark icon and a duration of '4m 13s'. The job log shows the following steps:

```
1  #!/bin/bash -eo pipefail
2  # your code here
3  export OldWorkflowID=$(aws cloudformation list-exports \
4  --query "Exports[?Name=='WorkflowID'].Value" \
5  --no-paginate --output text)
6  echo $OldWorkflowID >> ~/OldWorkflowID.txt
7  cat ~/OldWorkflowID.txt
8  aws cloudformation deploy \
9  --template-file .circleci/files/cloudfront.yml \
10 --stack-name InitialStack \
11 --parameter-overrides WorkflowID=${CIRCLE_WORKFLOW_ID:0:7} \
12 --tags project=udapeople
13
14 echo $OldWorkflowID >> ~/OldWorkflowID.txt
15 cat ~/OldWorkflowID.txt
16
17 udapeople-236482386845
18
19 Waiting for changeset to be created..
20 Waiting for stack create/update to complete
21 Successfully created/updated stack - InitialStack
22 udapeople-236482386845
23 udapeople-236482386845
24 CircleCI received exit code 0
```

The left sidebar of the CircleCI interface shows the user 'AhmedRAlsawi' and navigation links for 'Dashboard', 'Projects', 'Insights', 'Organization Settings', and 'Plan'. A notification banner at the bottom of the sidebar reads: 'CI behind your firewall just got easier. A more scalable, container friendly self-hosted runner is now in open preview'. The bottom of the browser window shows the Windows taskbar with various application icons and the system clock displaying '12:33 AM'.

SCREENSHOT08 EXAMPLE





**AhmedRalsawi**  
Ahmed Alsawi

Dashboard

Projects

Insights

Organization Settings

Plan

CI behind your firewall  
just got easier

A more scalable,  
**container friendly self-hosted runner** is now in  
open preview

Notifications

Get old stack workflow id and delete

3s

```
1#!/bin/sh -eo pipefail
2
3export OldWorkflowID=$(aws cloudformation list-exports --query "Exports[?Name==`WorkflowID`].Value" --no-paginate --o
4echo OldWorkflowID: "${OldWorkflowID}"
5echo CIRCLE_WORKFLOW_ID "${CIRCLE_WORKFLOW_ID:0:7}"
6if [[ "${CIRCLE_WORKFLOW_ID:0:7}" != "${OldWorkflowID}" ]]
7then
8# your code goes here
9echo "Deleted"
10aws s3 rm "s3://udapeople-${OldWorkflowID}" --recursive
11aws cloudformation delete-stack --stack-name "udapeople-backend-${OldWorkflowID}"
12aws cloudformation delete-stack --stack-name "udapeople-frontend-${OldWorkflowID}"
13else
14echo "Not Deleted"
15fi
16
17OldWorkflowID: 5fccbe5
18CIRCLE_WORKFLOW_ID f80345f
19Deleted
20delete: s3://udapeople-5fccbe5/224b6d9d16679dab02826a2a7ea705eb.ttf
21delete: s3://udapeople-5fccbe5/2fa692cd55bfc83c228c0ab271e4388c.woff
22delete: s3://udapeople-5fccbe5/images/6ab15f4239b7d187935cf6f4ec3313bf-kiwi.svg
23delete: s3://udapeople-5fccbe5/1ceff9123b66b50a7d3cb5b221160855.eot
24delete: s3://udapeople-5fccbe5/index.html
25delete: s3://udapeople-5fccbe5/32f24c670adeaa388f7a.js
26delete: s3://udapeople-5fccbe5/bundle.js
27delete: s3://udapeople-5fccbe5/aa057573052e2700a756.js
28CircleCI received exit code 0
```

cleanup (434) - AhmedRalsawi/c

CloudFormation - Stack

Connect to instance | EC2 Manag

Instances | EC2 Management Cor

+

app.circedi.com/pipelines/github/AhmedRalsawi/cdond-c3-projectstarter/101/workflows/f80345f8-0c58-47be-b8c5-3c44d353952e/...

ItiUi Software Testing AWS CSS reference - CSS... font | CSS-Tricks Cloud July Cohort How Items Flow Int... W3Schools CSS align... Ahmed Raafat Demo My API Settings —...

Windows taskbar with icons for File Explorer, Firefox, Chrome, VS Code, and other applications.

System tray showing network, volume, and language (ENG) settings, along with the time 2:56 AM.

SCREENSHOT09 EXAMPLE

Workflow - cdond-c3-projectstar x CloudFormation - Stack x S3 Management Console x +

app.circedi.com/pipelines/github/AhmedRAIsawi/cdond-c3-projectstarter/104/workflows/0a819a77-5cb8-4a57-8118-a62988e38f24

ItiUi Software Testing AWS CSS reference - CSS... font | CSS-Tricks Cloud July Cohort How Items Flow Int... W3Schools CSS alig... Ahmed Raafat Demo My API Settings —...

AhmedRAIsawi Ahmed Alsawi

Dashboard Projects Insights Organization Settings Plan

CI behind your firewall just got easier  
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Notifications

Dashboard Project Branch Workflow

All Pipelines > cdond-c3-projectstarter > dev-branch > default

default Success

Insights Rerun ...

Duration / Finished	Branch	Commit	Author & Message
2m 8s / 34s ago	dev-branch	14e4166	only dev branch final trail

build-frontend 40s scan-frontend 1m 3s

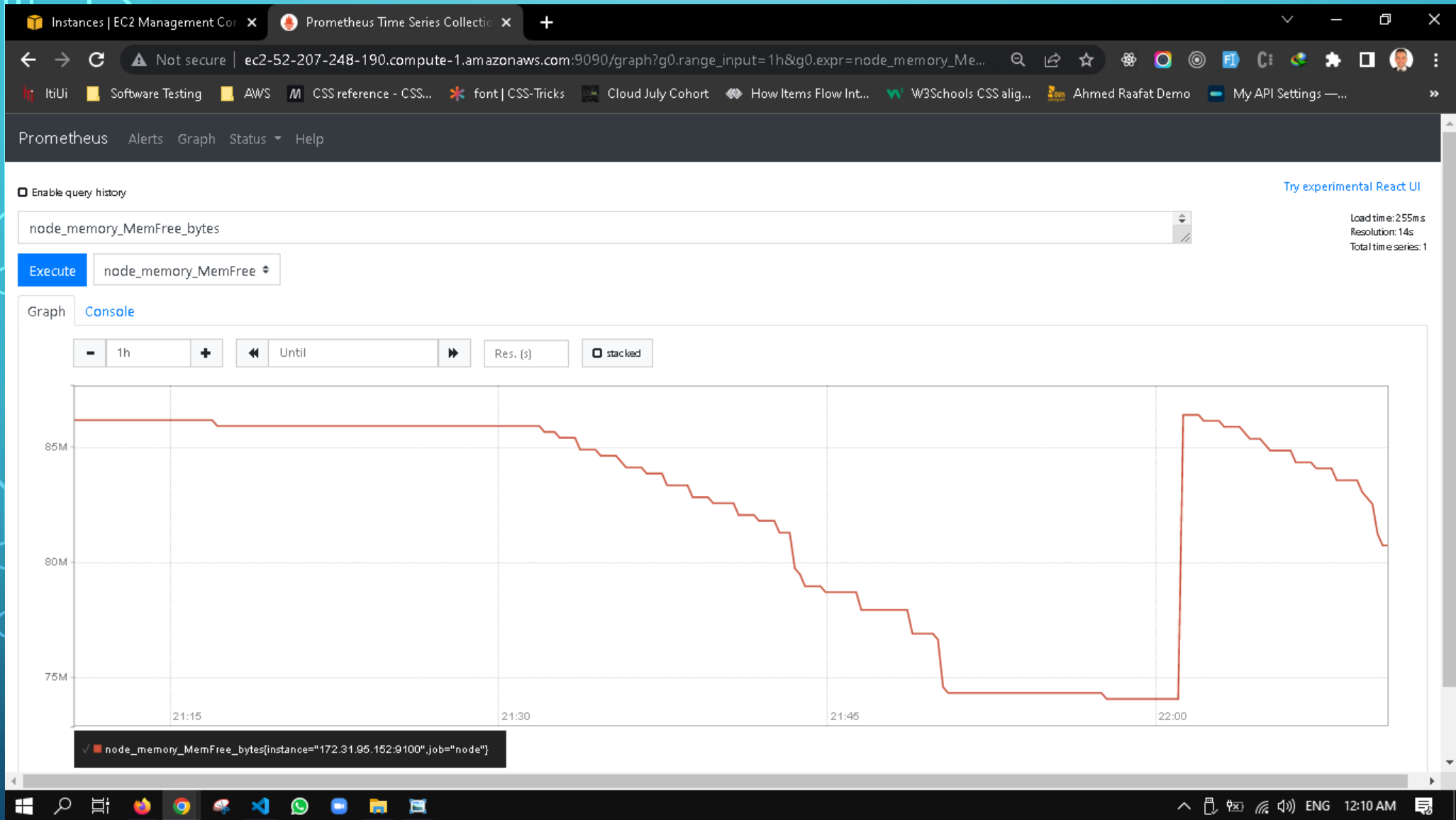
test-frontend 1m 22s

build-backend 33s scan-backend 1m 13s

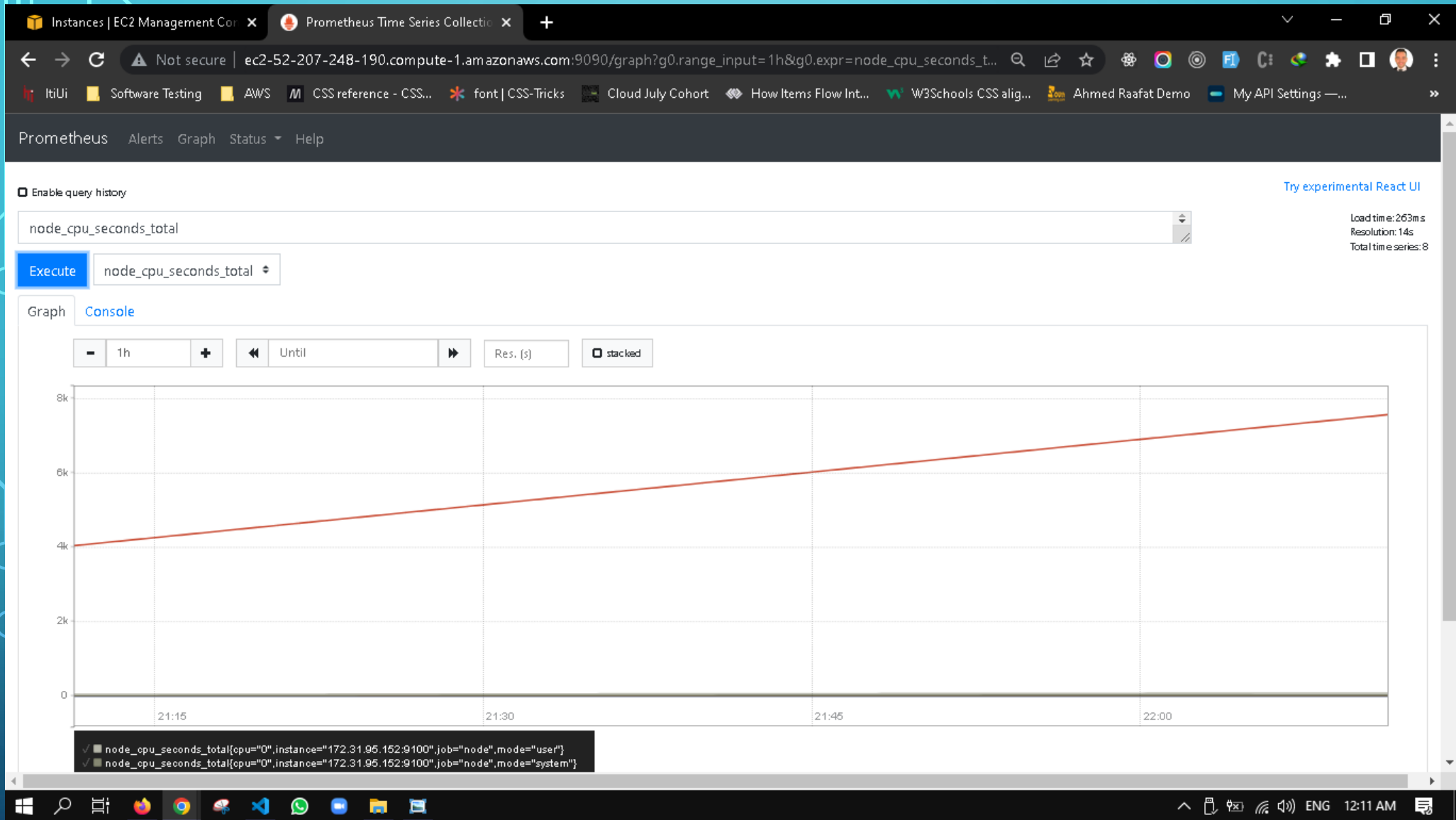
test-backend 1m 1s

Windows taskbar: Windows logo, Search, Task View, Firefox, Chrome, VS Code, WhatsApp, Telegram, File Explorer, System tray (Network, Volume, ENG, 3:06 AM, Notifications)

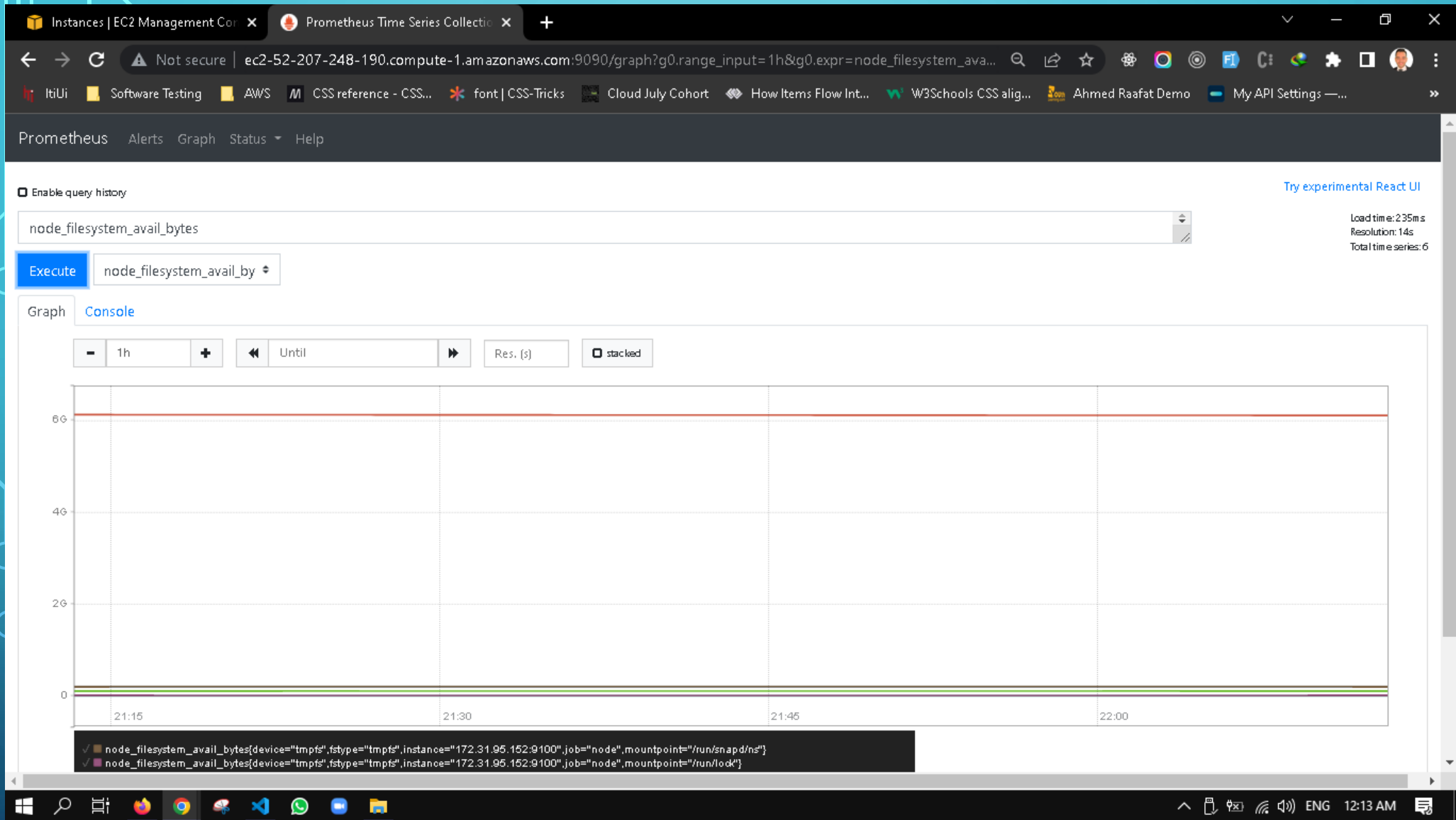
SCREENSHOT10 EXAMPLE



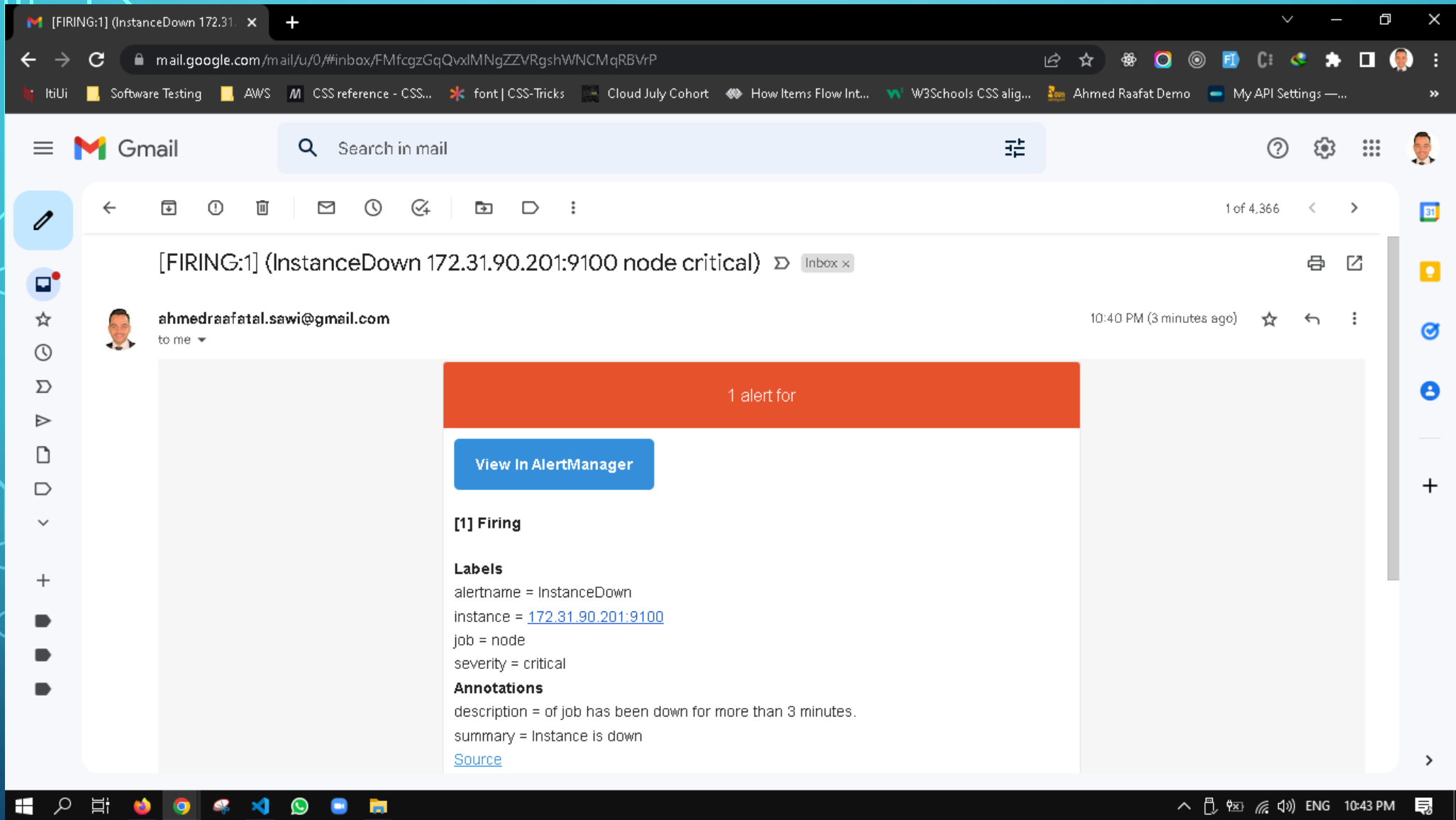
SCREENSHOT 11-A EXAMPLE



SCREENSHOT 11-B EXAMPLE



SCREENSHOT 11-C EXAMPLE



SCREENSHOT12 EXAMPLE

Welcome x +

Not secure | d3pj86p3oejqzq.cloudfront.net/#/employees

ACKLENA

Search in the app

Employees / View & Manage

View & Manage Employees









+ Add New Employee

Employees

View & Manage

+ Add New

Active Archived Type to filter...

Display Name	Last Name	Email	Tags	Birthdate	Start Date	Action
 Addison Christian	Cooke	hynysa@mailinator...		3/31/2022	4/3/1997	
 Dillon Alvarado	Koch	jebemur@mailinat...		10/20/2022	7/18/1975	
 Driscoll Morales	Park	gadedohepi@maili...		10/20/2022	8/23/1990	
 Xantha Tillman	Simmons	poxysa@mailinator...		10/20/2022	7/4/2022	

Type here to search

25°C مشمس 12:13 PM 10/20/2022

URL01\_SCREENSHOT

Welcome x Welcome x +

Not secure | udapeople-c6ebdc1.s3-website-us-east-1.amazonaws.com/#/employees

ACKLENA\

Search in the app

Employees / View & Manage

View & Manage Employees







+ Add New Employee

Employees

View & Manage

+ Add New

Active Archived Type to filter...

Display Name	Last Name	Email	Tags	Birthdate	Start Date	Action
 Addison Christian	Cooke	hynysa@mailinator...		3/31/2022	4/3/1997	
 Driscoll Morales	Park	gadedohepi@maili...		10/20/2022	8/23/1990	
 Xantha Tillman	Simmons	poxyga@mailinator...		10/20/2022	7/4/2022	

Type here to search

25°C مشمس 12:13 PM 10/20/2022

URL02\_SCREENSHOT



us-east-1.console.aws.amazon.com/cloudfront/v3/home?region=us-east-1#/distributions

CloudFront

Distributions

Distributions (1) Info

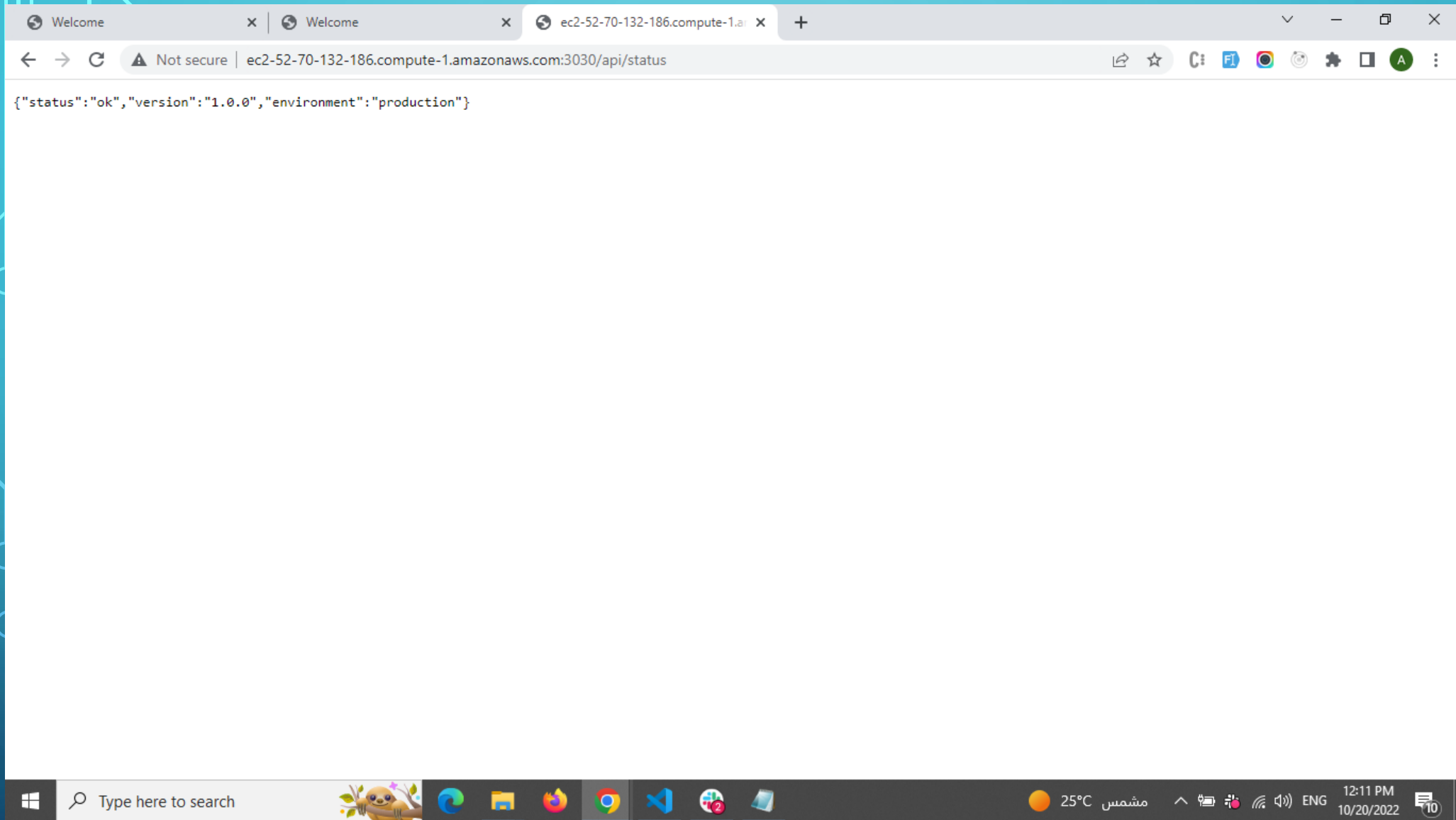
Search all distributions

	ID	Descrip...	Domain name	Alterna...	Origins	Status
<input type="checkbox"/>	E3HG3VR8JVLKDM	-	d3pj86p3oejqzq.cloudfront.net	-	udapeople-c6ebdc1	Enabled

© 2022, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

12:12 PM 10/20/2022

URL03\_SCREENSHOT



URL04\_SCREENSHOT

## Service Discovery

- prometheus (1/1 active targets)
- udapeople (1/1 active targets)

### prometheus [show less](#)

Discovered Labels	Target Labels
<code>__address__="localhost:9090"</code> <code>__metrics_path__="/metrics"</code> <code>__scheme__="http"</code> <code>job="prometheus"</code>	<code>instance="localhost:9090"</code> <code>job="prometheus"</code>

### udapeople [show less](#)

Discovered Labels	Target Labels
<code>__address__="172.31.93.149:9100"</code> <code>__meta_ec2_architecture="x86_64"</code> <code>__meta_ec2_availability_zone="us-east-1b"</code> <code>__meta_ec2_instance_id="i-0a06dbe21f2f79b14"</code> <code>__meta_ec2_instance_state="running"</code> <code>__meta_ec2_instance_type="t2.micro"</code> <code>__meta_ec2_owner_id="236482386845"</code> <code>__meta_ec2_primary_subnet_id="subnet-0765e6a4b2ece85e4"</code> <code>__meta_ec2_private_dns_name="ip-172-31-93-149.ec2.internal"</code> <code>__meta_ec2_private_ip="172.31.93.149"</code> <code>__meta_ec2_public_dns_name="ec2-3-89-120-210.compute-1.amazonaws.com"</code> <code>__meta_ec2_public_ip="3.89.120.210"</code> <code>__meta_ec2_subnet_id="subnet-0765e6a4b2ece85e4"</code> <code>__meta_ec2_tag_Name="backend-79101ab"</code> <code>__meta_ec2_tag_Project="Udapeople"</code> <code>__meta_ec2_tag_aws_cloudformation_logical_id="EC2Instance"</code> <code>__meta_ec2_tag_aws_cloudformation_stack_id="arnawscloudformation:us-east-1:236482386845:stack/udapeople-backend-79101ab/0e065140-4c1b-11ed-b072-0a7602c25c7d"</code> <code>__meta_ec2_tag_aws_cloudformation_stack_name="udapeople-backend-79101ab"</code> <code>__meta_ec2_vpc_id="vpc-0eed57605c226c79c"</code> <code>__metrics_path__="/metrics"</code> <code>__scheme__="http"</code> <code>job="udapeople"</code>	<code>instance="172.31.93.149:9100"</code> <code>job="udapeople"</code>