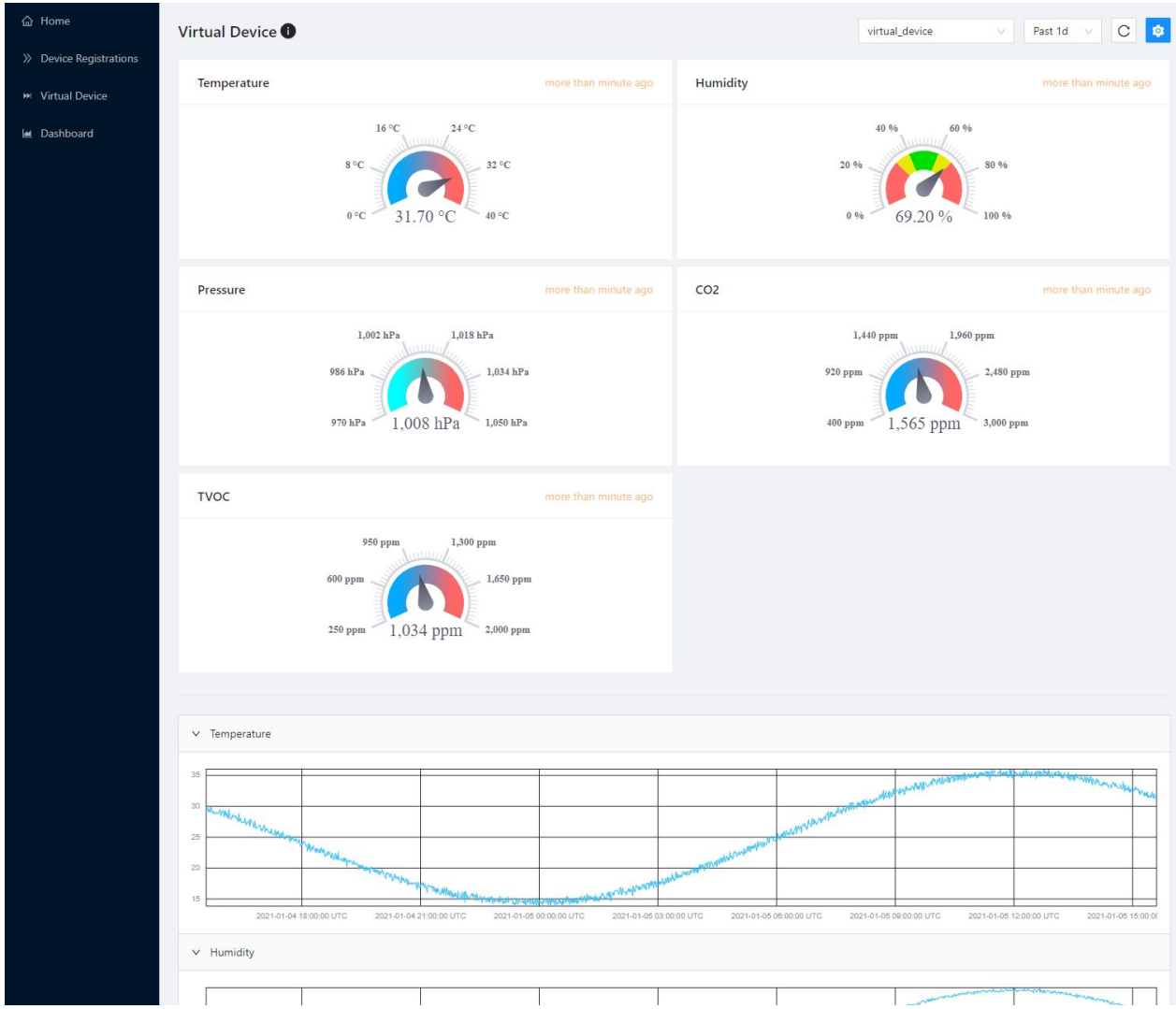
influxdata
Act in Time

IoT Center Installation

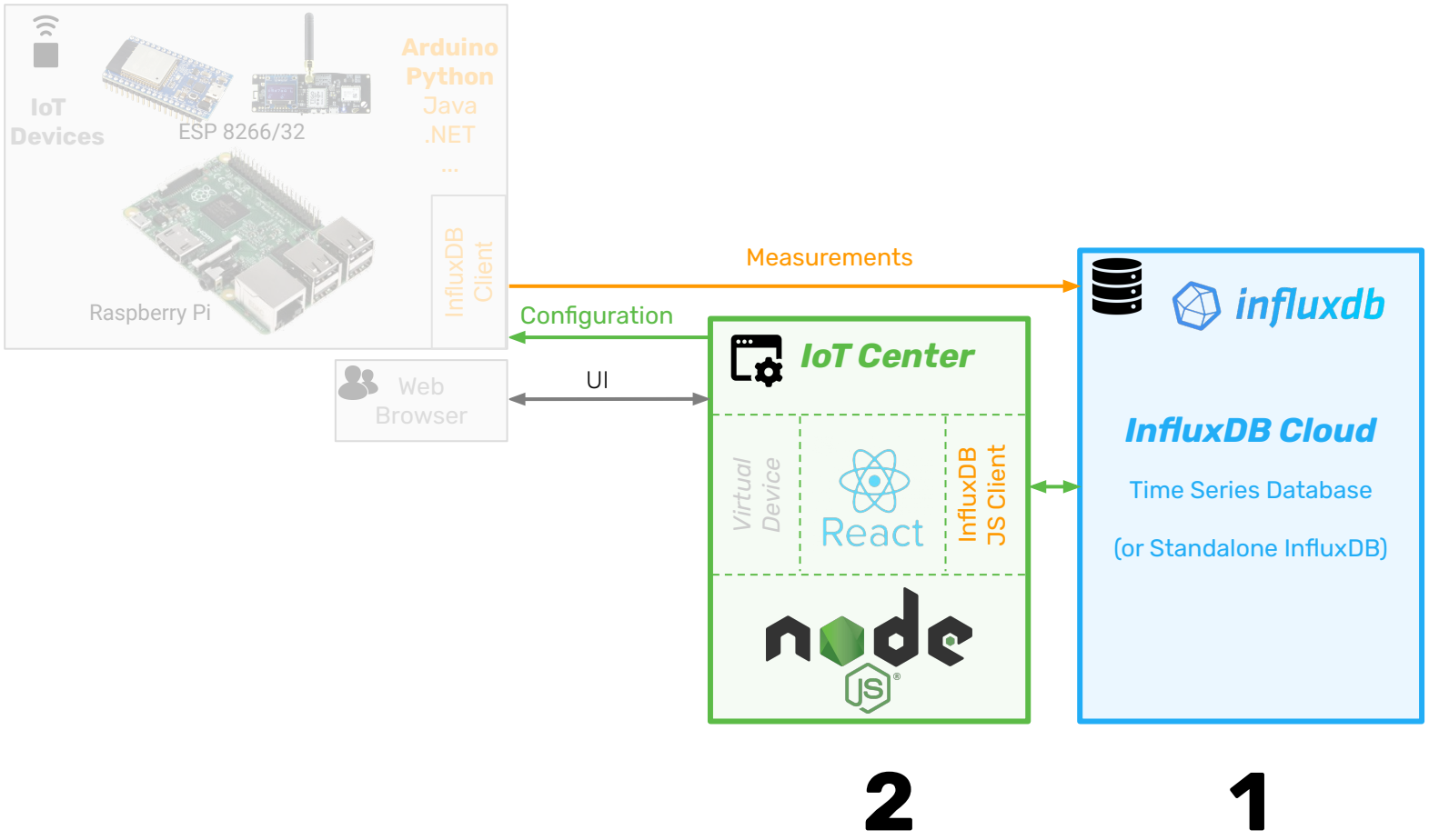
Workshop

Agenda

- InfluxDB Cloud Account
- Prepare environment
  - Install git
  - Install node.js
  - Install yarn
- Get source code from GIT
- Build IoT Center
- Set IoT Center configuration
- Run IoT Center
- Virtual Device Test



IoT Center Installation Approach



Create InfluxDB Cloud Account

Skip this if you already have the InfluxDB account

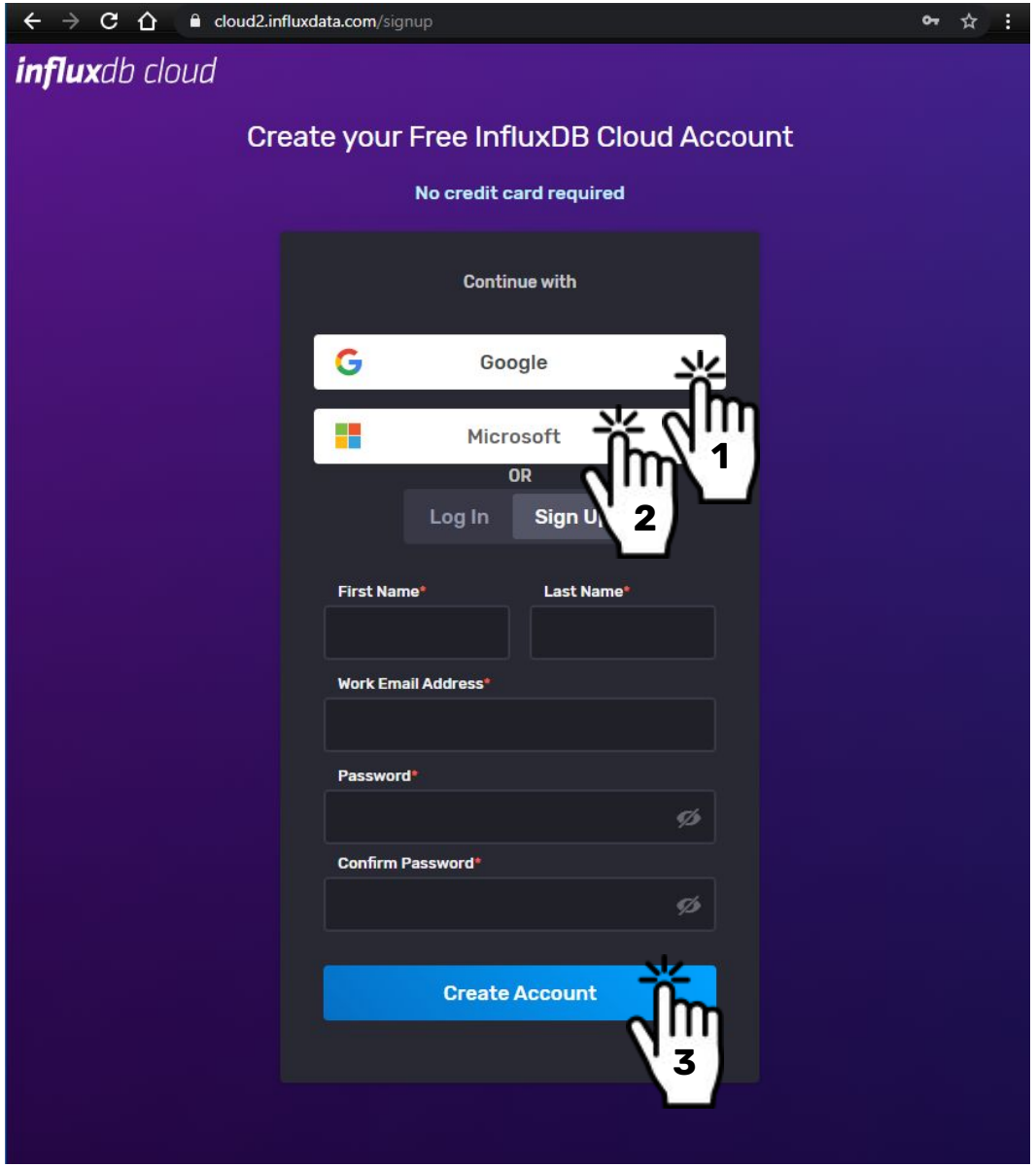
Skip this step if you already have the account

Sign up to Influxdb Cloud

Open Web Browser
https://cloud2.influxdata.com/

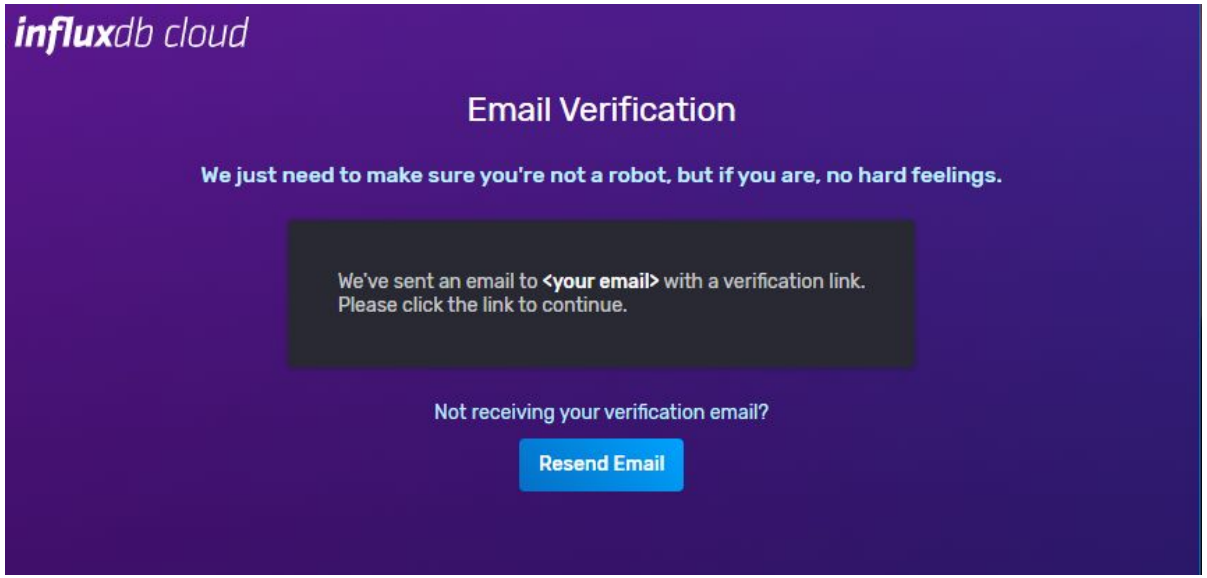
Three options:

1. Register via **Google** email
   - Select right Google account
2. Register via **Microsoft** email
   - Select right Microsoft account
   - Requires *Read profile* rights
3. Create account via **any email**
   - Fill Name, Email, Password
   - Receive email for validation



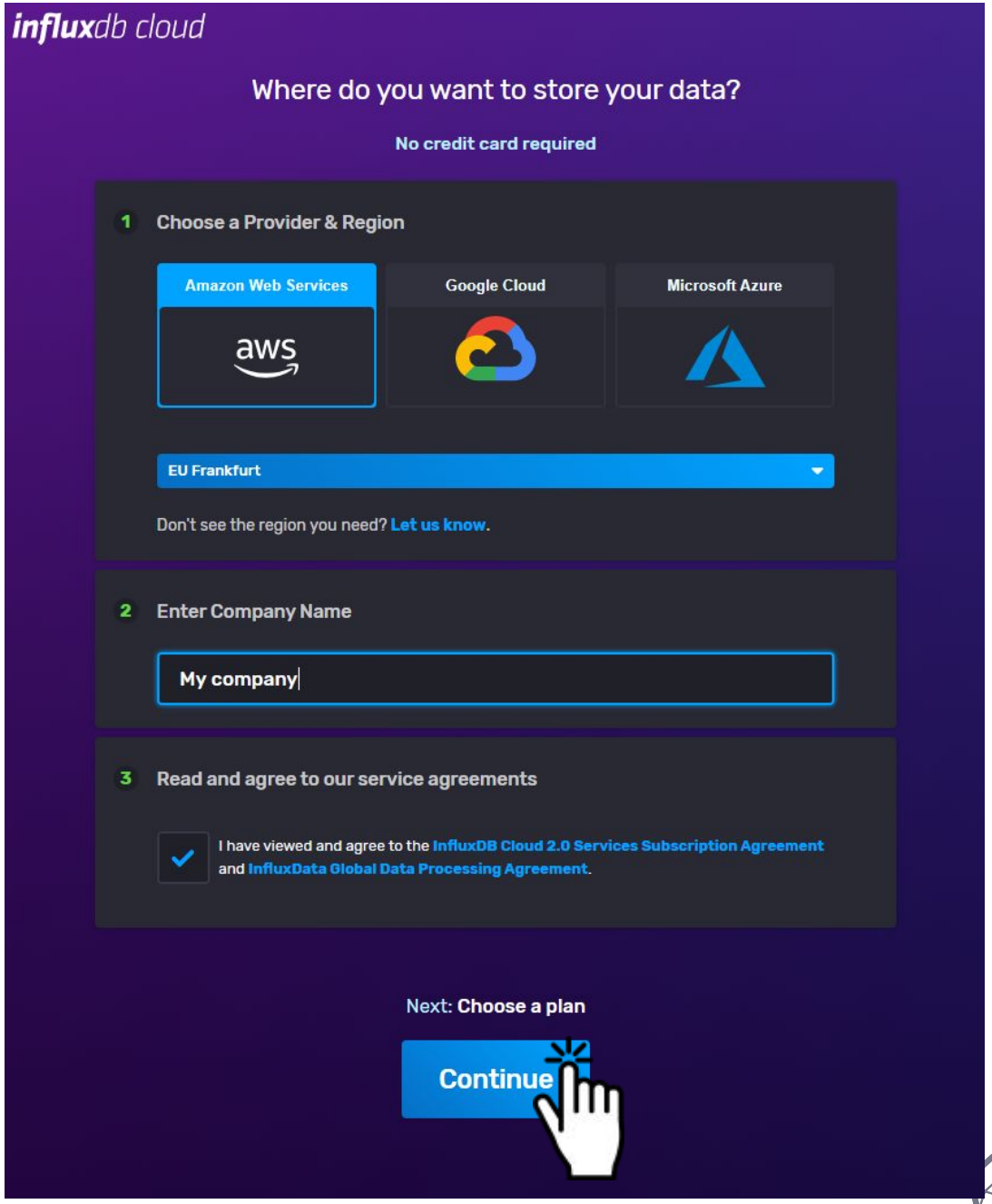
Verification

Only when email option was selected



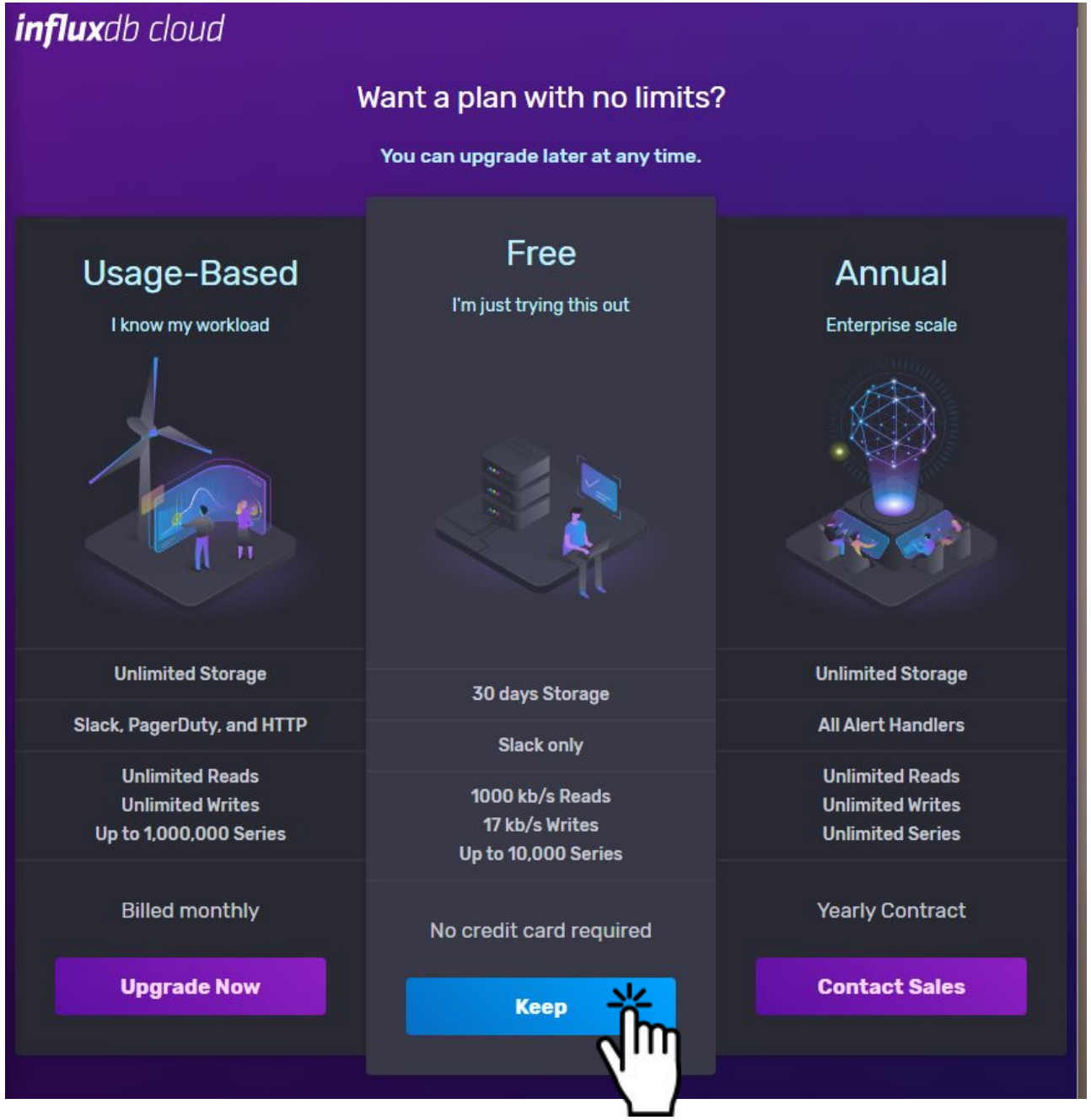
Registration

1. Select any provider
2. Company name
3. Read & check agreement
4. Click continue



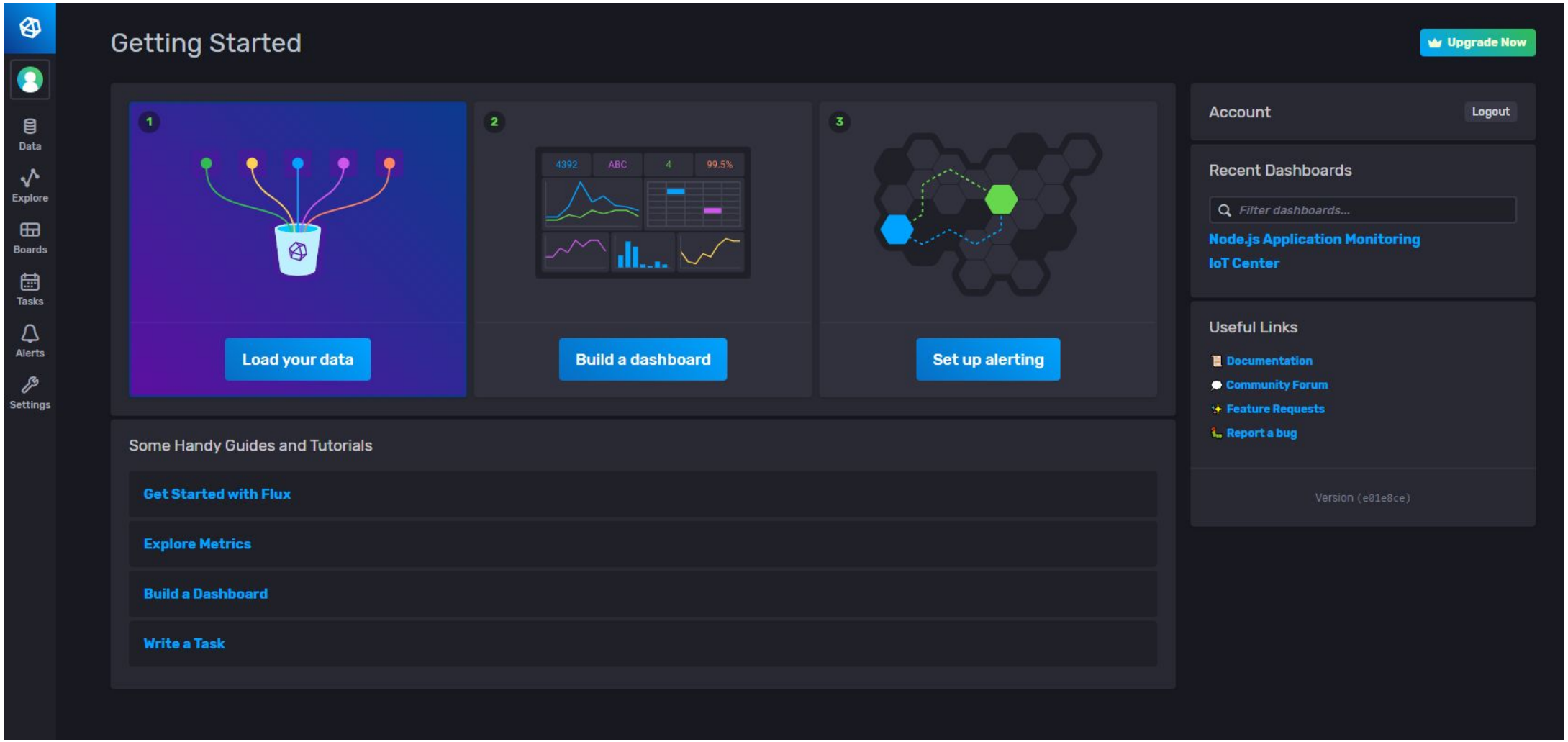
Select plan

- Select **Free** tier (time-unlimited)
- You can upgrade the tier any time



InfluxDB 2 Cloud Account Created

If you already have the InfluxDB account, please login



Generate API Token for IoT Center

Menu

- **Data**

Tab

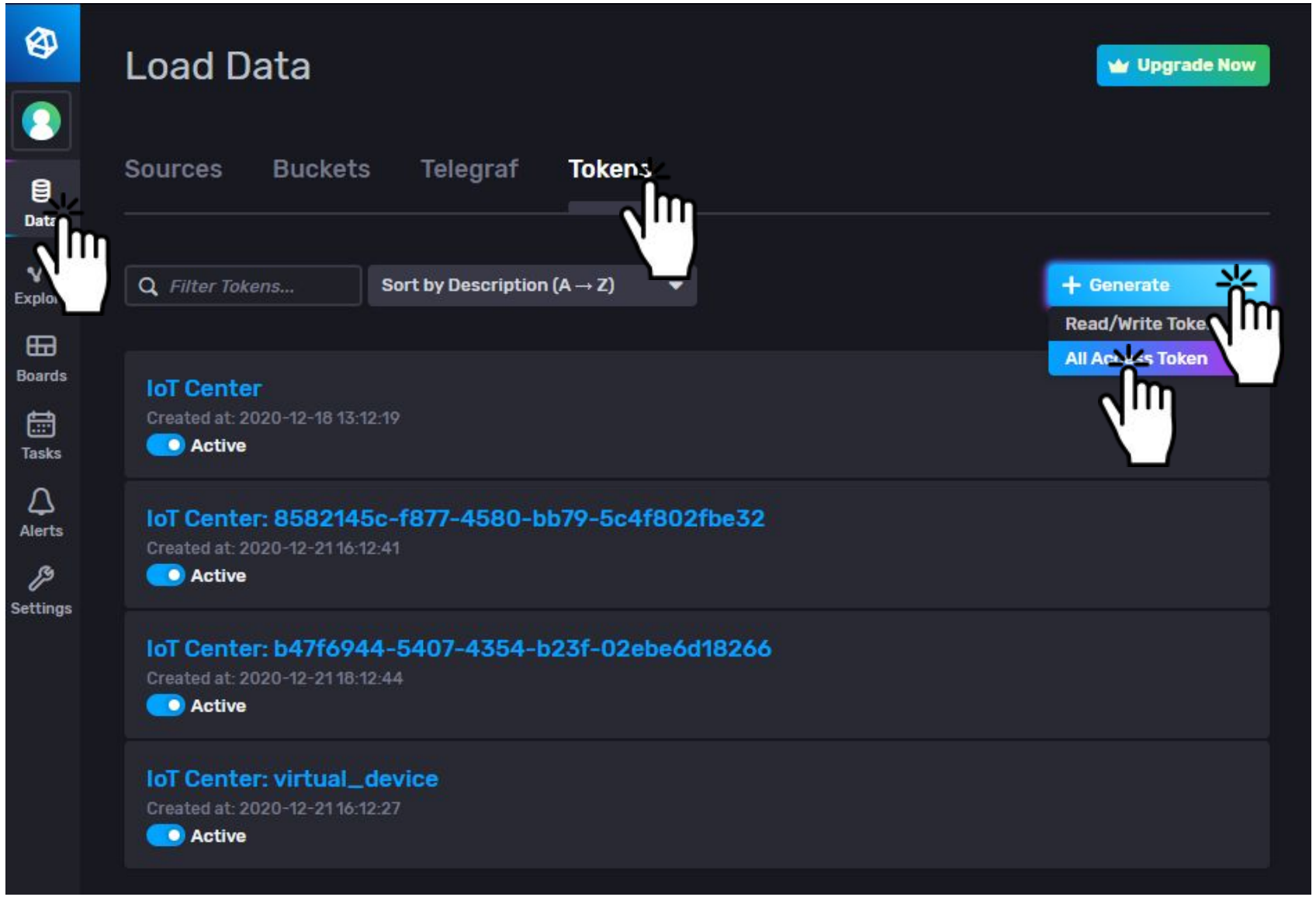
- **Tokens**

Button

- **Generate**

Select

- **All Access Token**



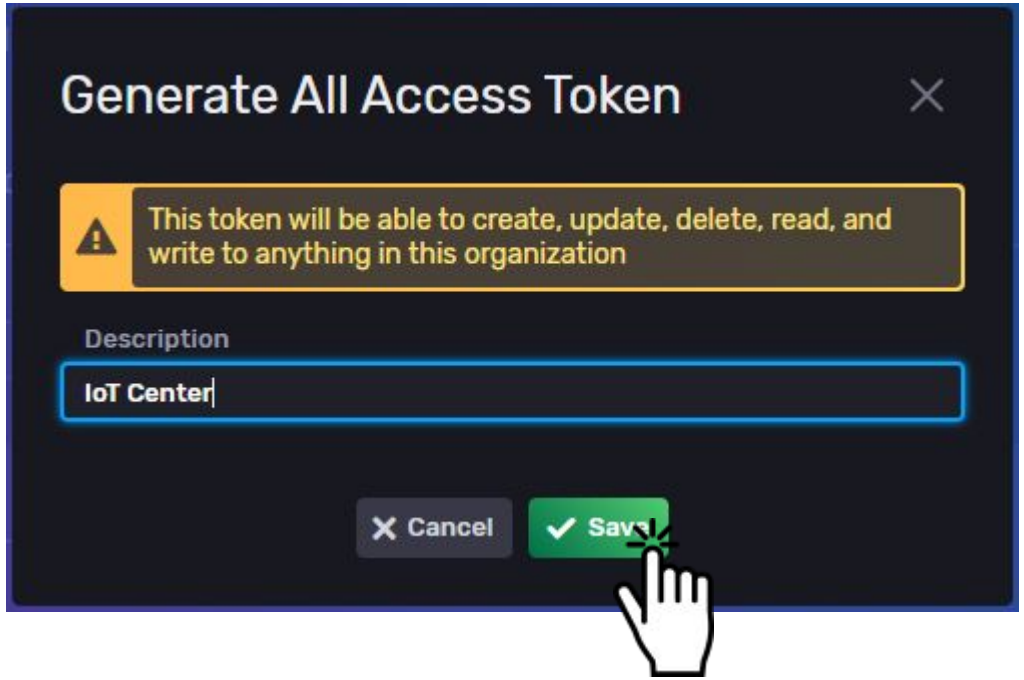
Define API Token Name

Enter Description

- e.g. “IoT Center”

Button

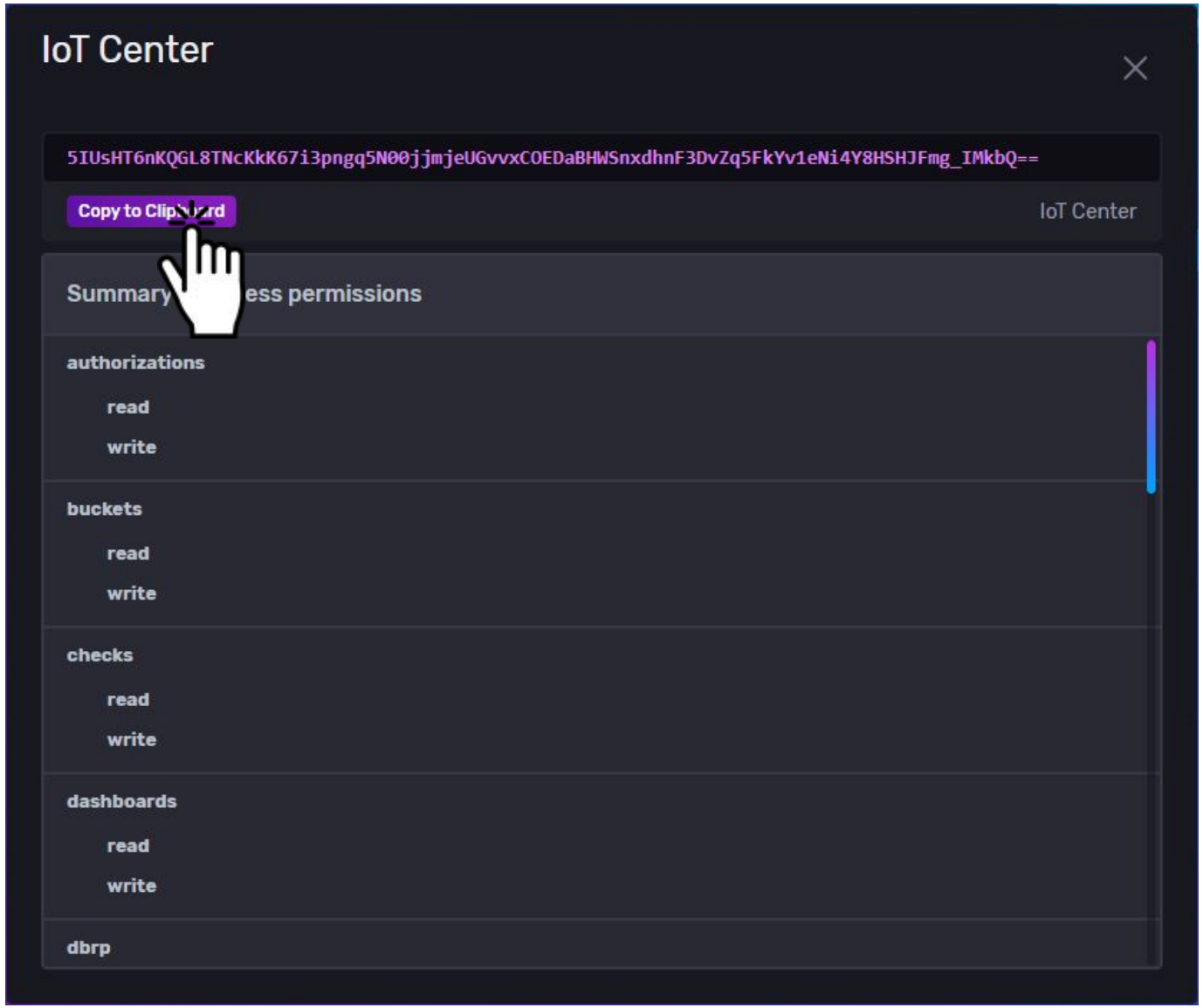
- Save



Get API Token

1. Click on the token name
2. Click button
   - **Copy to clipboard**

Keep this page open - we use the token later



IoT Center Installation

Install node.js

- Linux - Install package **nodejs** (need node version v10+.)
- Windows/Mac - https://nodejs.org/en/download/

- Test node.js

```
$ node --version
v10.19.0
```

Ubuntu/debian newer node version - **curl -sL https://deb.nodesource.com/setup_15.x | sudo -E bash -**

Install yarn

- Linux - Install package **yarn**
- Windows/Mac - https://classic.yarnpkg.com/en/docs/install

- Test yarn

```
$ yarn --version
1.22.5
```


Install git

- Linux - Install package **git-all**
- Windows/Mac - https://git-scm.com/downloads

- Test git

```
$ git --version
git version 2.25.1
```


Download IoT Center source code

Run: **git clone https://github.com/bonitoo-io/iot-center-v2**

Help: https://github.com/bonitoo-io/iot-center-v2

Already cloned? Run: **git pull**

```
$ git clone https://github.com/bonitoo-io/iot-center-v2
Cloning into 'iot-center-v2'...
remote: Enumerating objects: 1185, done.
remote: Total 1185 (delta 0), reused 0 (delta 0), pack-reused 1185
Receiving objects: 100% (1404/1404), 1.92 MiB | 1.92 MiB/s, done.
Resolving deltas: 100% (977/977), done.
```


Build IoT Center

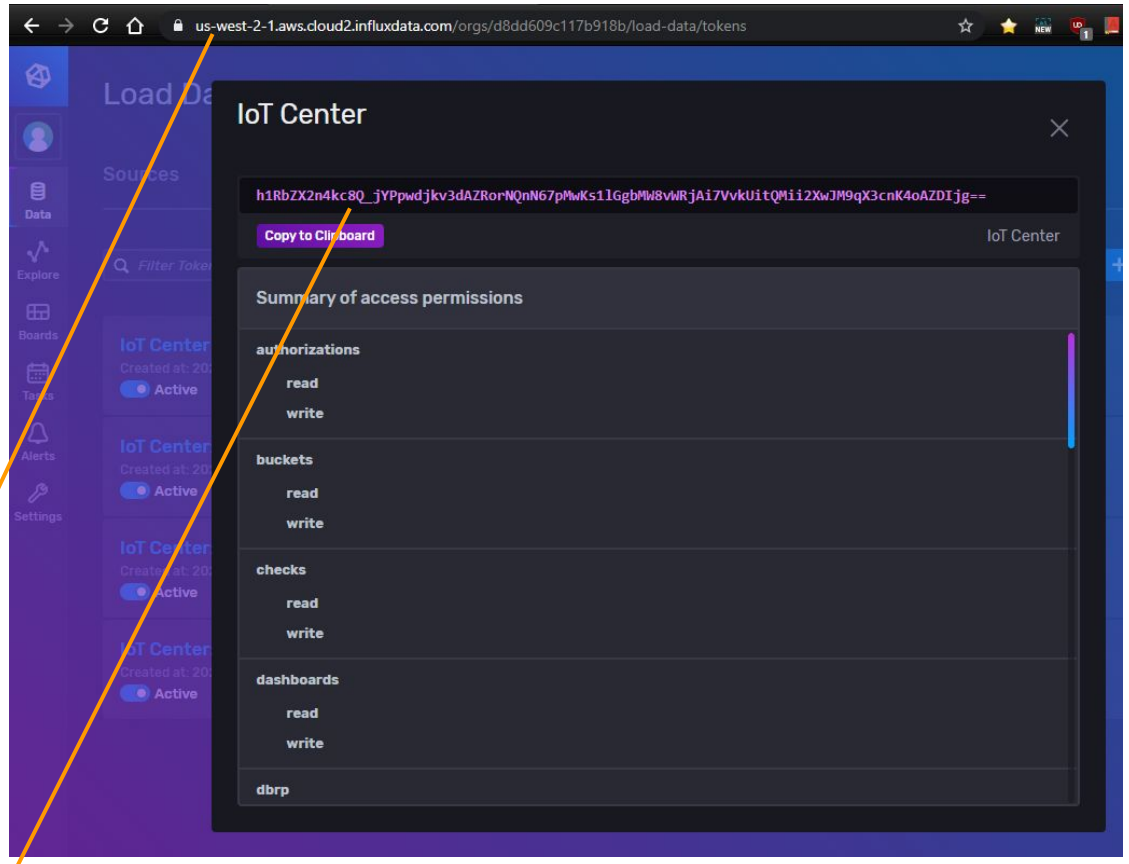
- Move to app directory: **cd iot-center-v2/app/**
- Run: **yarn install** (takes up to few minutes)

```
$ yarn install
yarn install v1.22.5
[1/4] Resolving packages…
[2/4] Fetching packages…
[4/4] Building fresh packages…
Done in 140.75s.
```

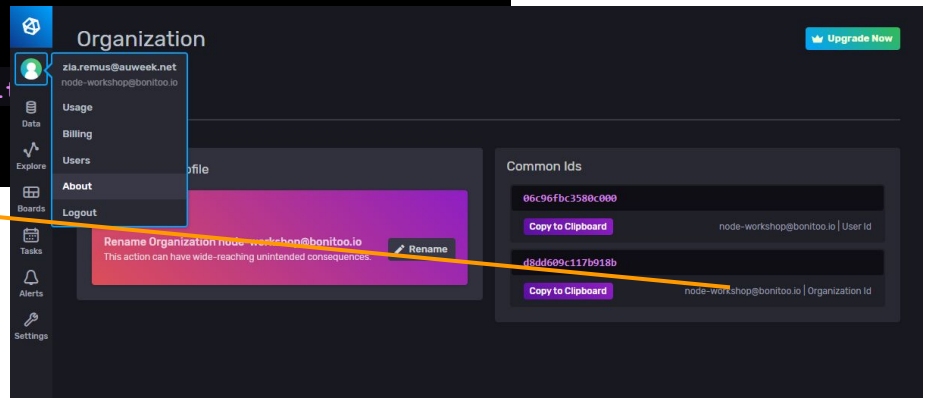

Configure start scripts

Modify files in **iot-center-v2/app** directory

- Windows - open file **dev.bat**
- Linux/Mac - open file **dev.sh**

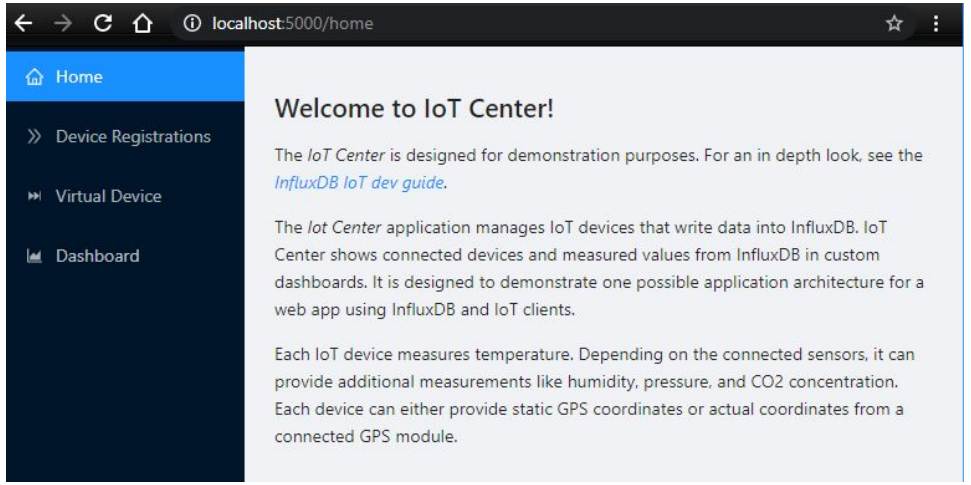



```
SET INFLUX_URL=https://us-west-2-1.aws.cloud2.influxdata.com
SET INFLUX_TOKEN=h1RbZX2n4kc8Q_jYPpwdjkv3dAZRorNQnN67pMwKs1lGgbMW8vWRjAi7VvkUi
SET INFLUX_ORG=node-workshop@bonitoo.io
```



Start IoT Center

- Execute
  - **dev.bat** (Windows)
  - **./dev.sh** (Linux/Mac)




```
./dev.sh
yarn run v1.22.5
cd server && yarn start
node index.js
Enable proxy from /influx/* to https://us-west-2-1.aws.cloud2.influxdata.com/*
Bucket 'iot_center' exists.
INFLUX_URL=https://us-west-2-1.aws.cloud2.influxdata.com
INFLUX_TOKEN=***
INFLUX_ORG=node-workshop@bonitoo.io
INFLUX_BUCKET=iot_center
Listening on http://localhost:5000
```

- Open Web browser: http://localhost:3000

Keep this script running - we will use it later

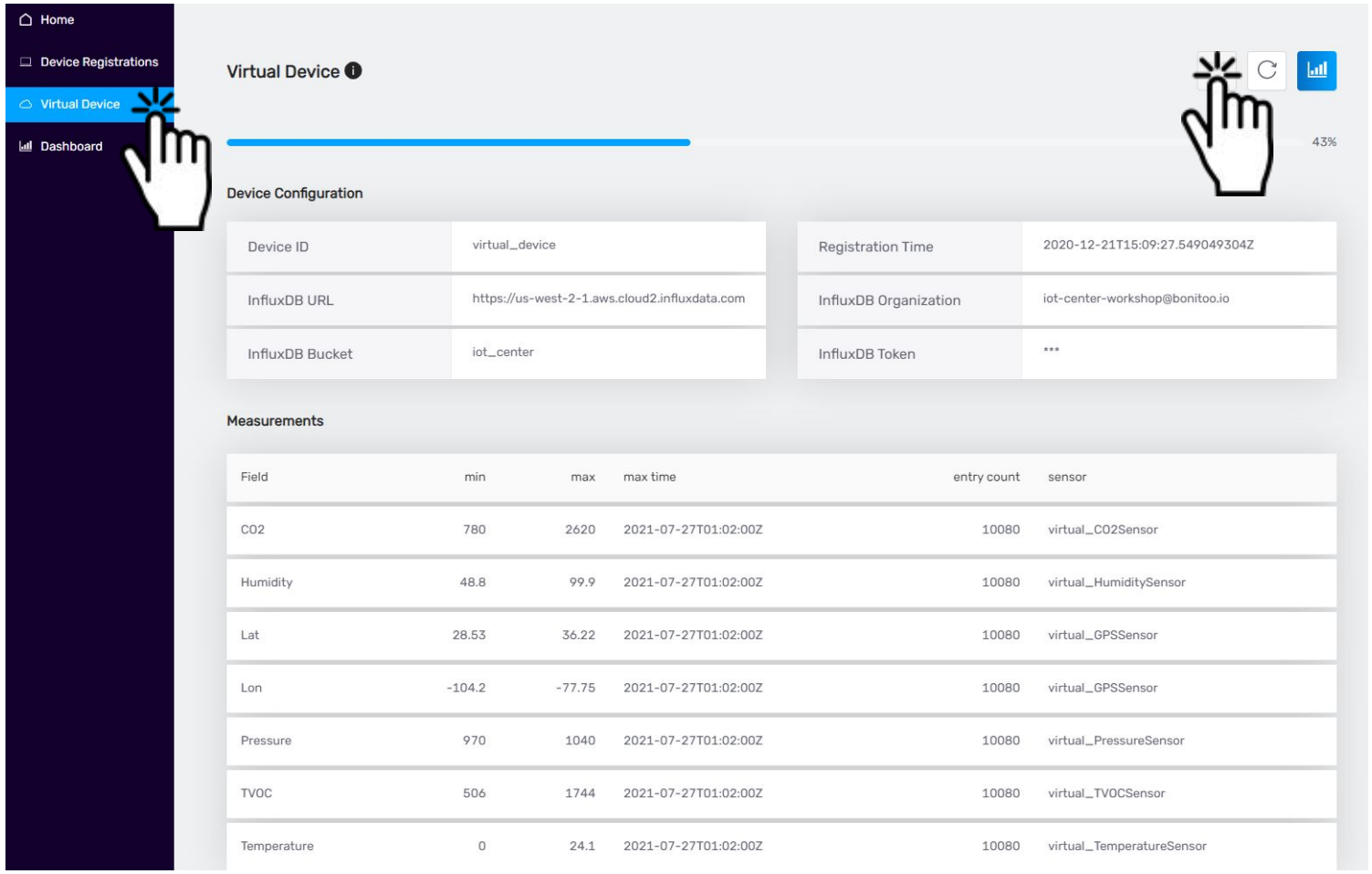
Virtual Device - Generate demo data

Left menu

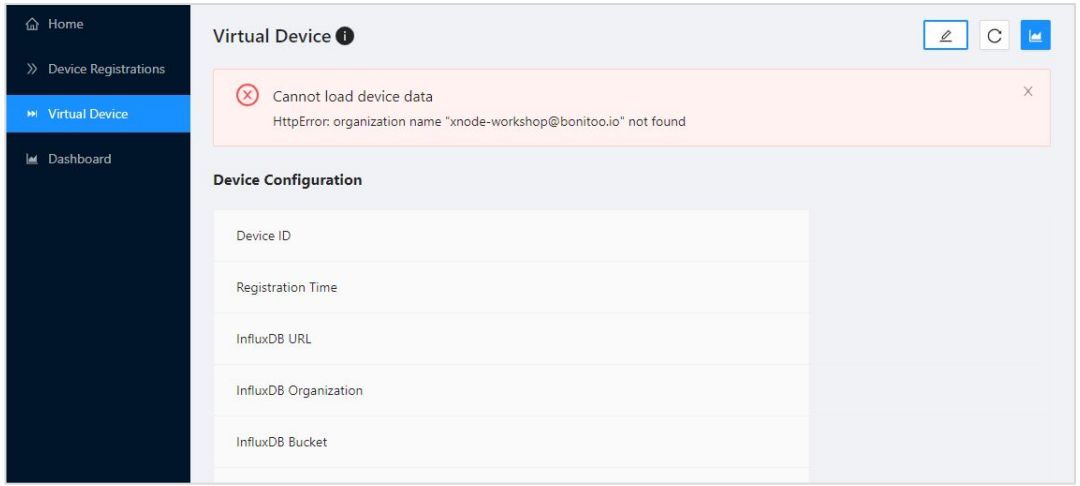
- **Virtual Device**

Top screen

- **Button** with pencil



Issues?



Errors

Error: 500 Error: connect ECONNREFUSED 127.0.0.1:8086

- fix **dev.bat/dev.sh** - you probably didn't save the file

HttpError: organization name "*xnode-workshop@bonitoo.io*" not found

- fix **INFLUX_ORG** - wrong organization name

Error: Unsupported protocol "null in URL: "*us-west-2-1.aws.cloud2.influxdata.com*"

- fix **INFLUX_URL** - add https://

Error: 500 Error: getaddrinfo ENOTFOUND xus-west-2-1.aws.cloud2.influxdata.com

- fix **INFLUX_URL** - wrong address

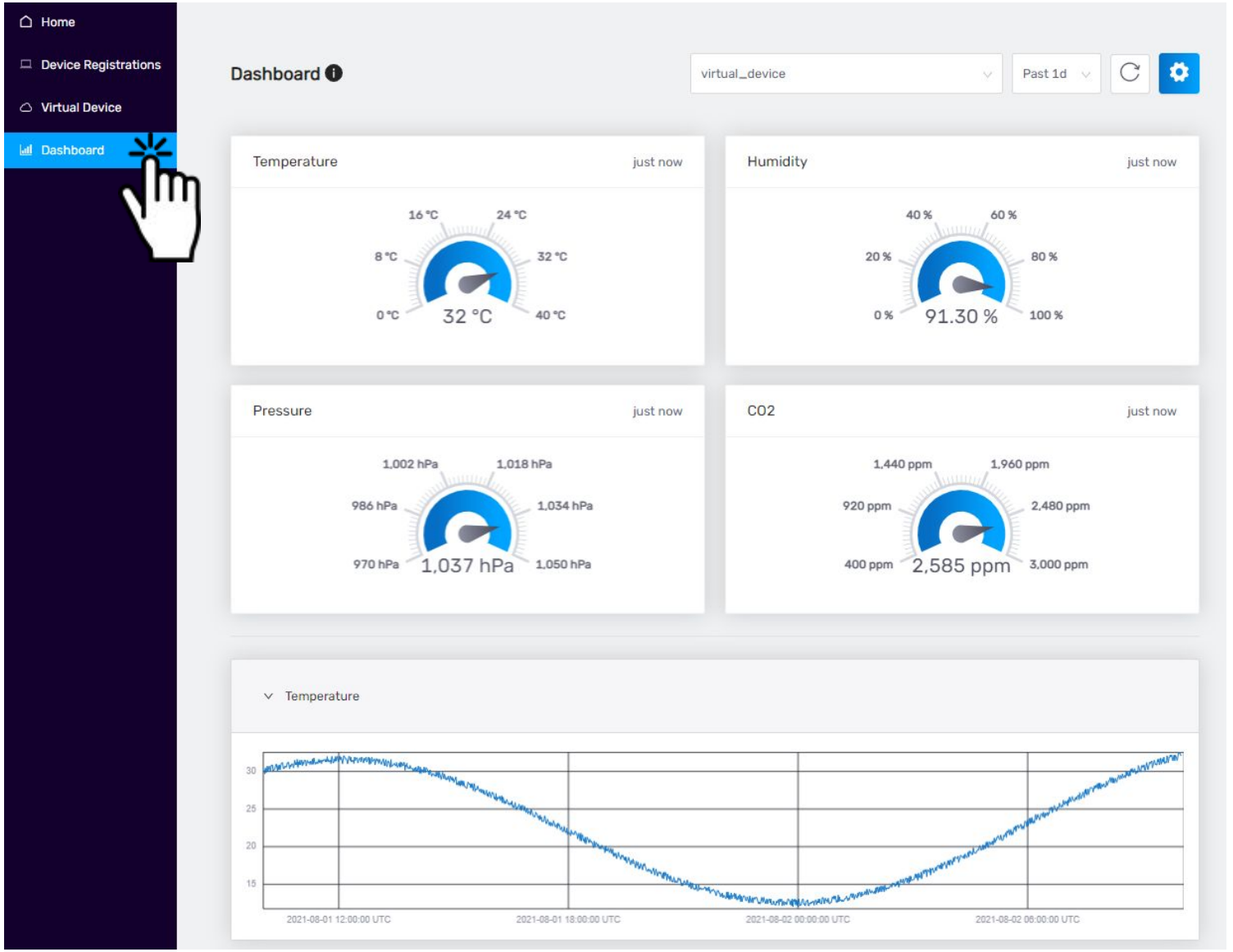
Error: 500 Error: 401 Unauthorized : {"code":"unauthorized","message":"unauthorized access"}

- fix **INFLUX_TOKEN** - invalid credentials

Test Demo Data

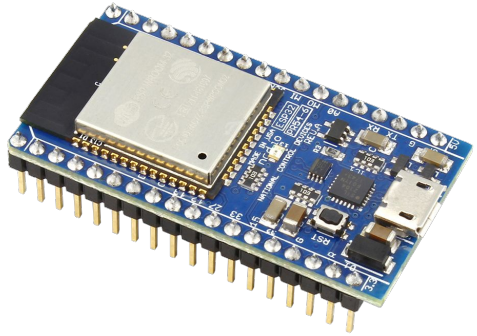
Left Menu

- Click **Dashboard**

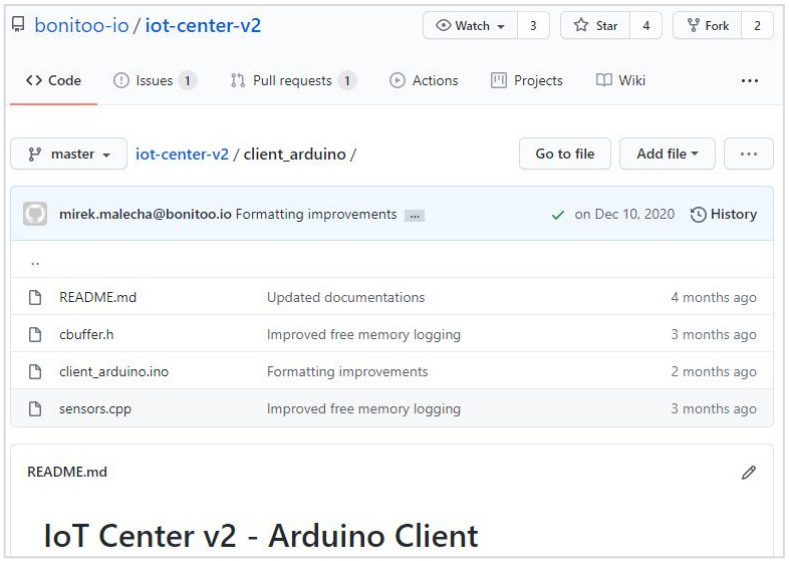


IoT Platforms source code (temperature sensor required)

ESP8266 and ESP32 devices
Arduino

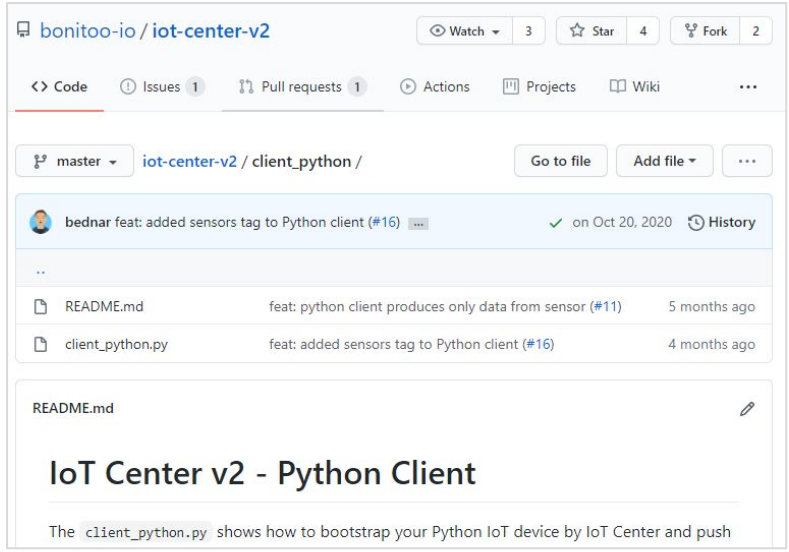


https://github.com/bonitoo-io/iot-center-v2/tree/master/client_arduino



Raspberry Pi
Python

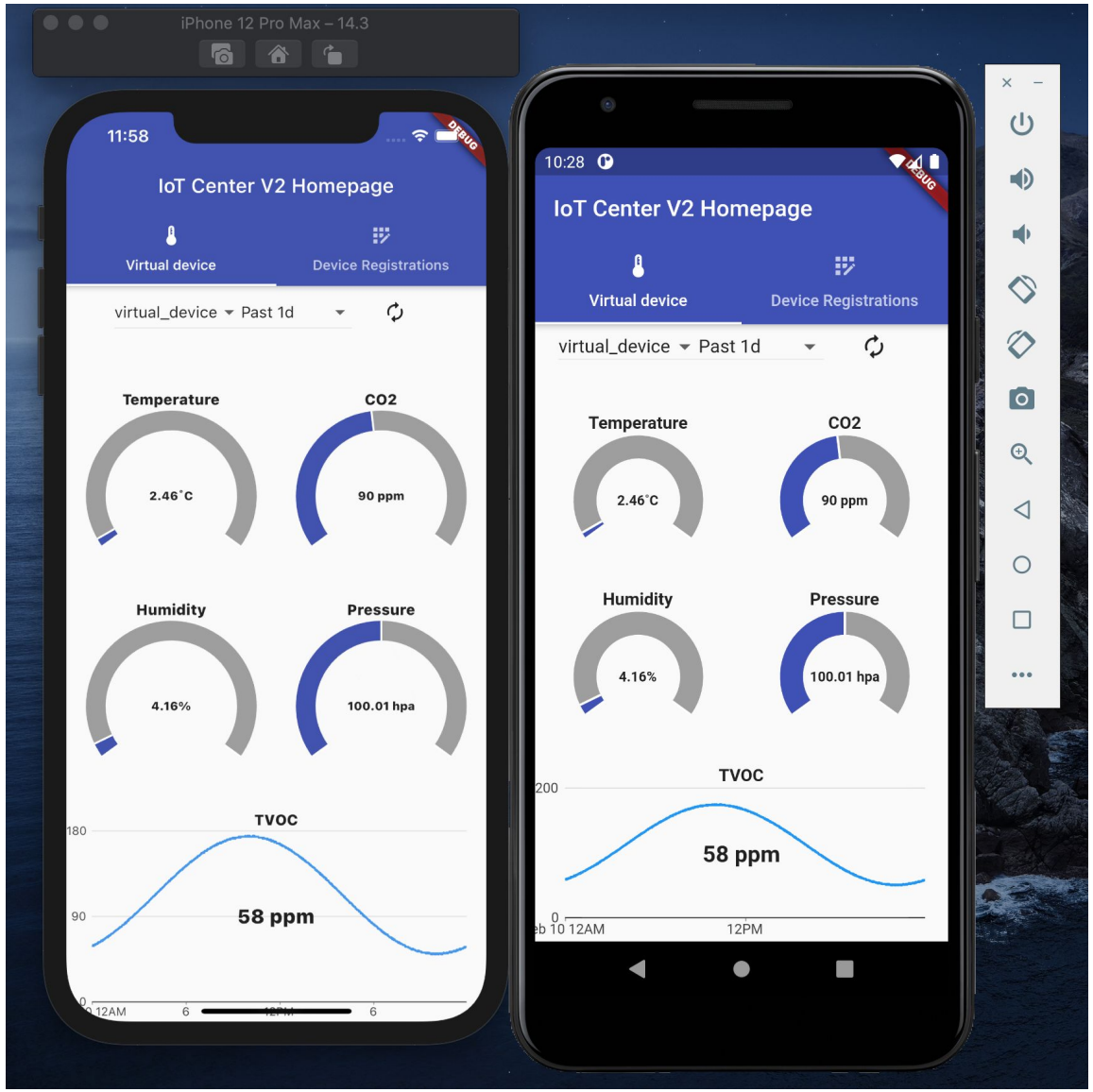
https://github.com/bonitoo-io/iot-center-v2/tree/master/client_python



Mobile client - Flutter

Using Dart InfluxDB Library

https://github.com/influxdata/iot-center-flutter



Break - 5 minutes

Errors

Error: 500 Error: connect ECONNREFUSED 127.0.0.1:8086

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Error: Unsupported protocol "null in URL: "*us-west-2-1.aws.cloud2.influxdata.com*"

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Error: 500 Error: getaddrinfo ENOTFOUND xus-west-2-1.aws.cloud2.influxdata.com

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