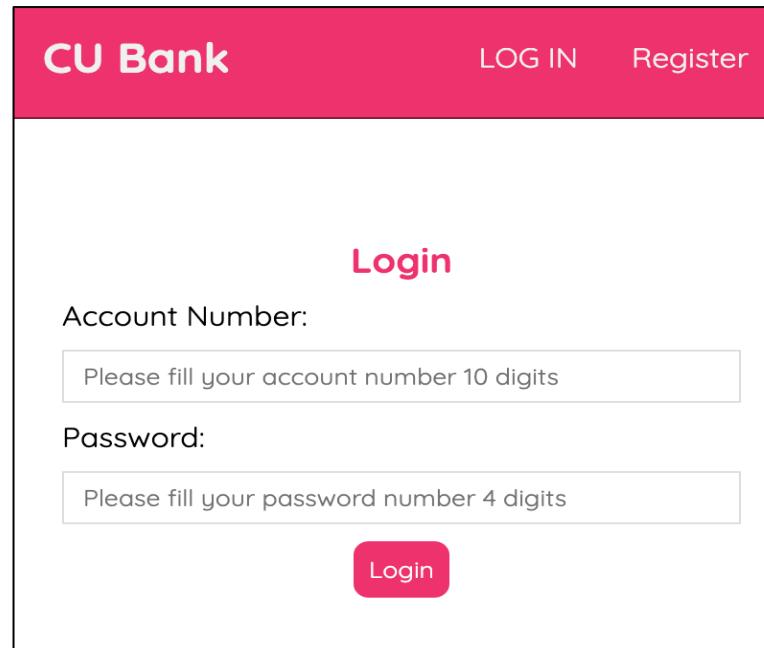


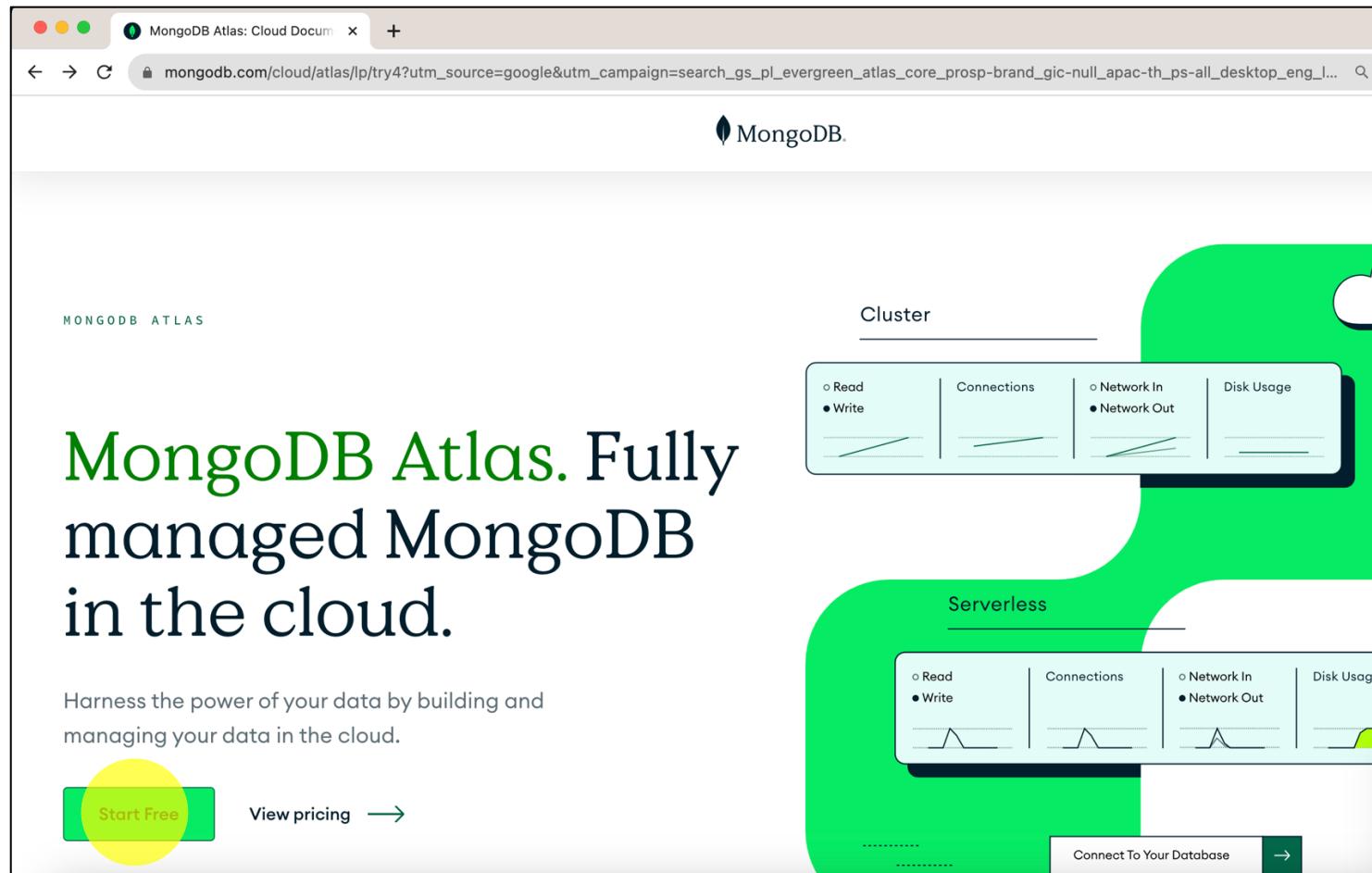
การตั้งค่า CU Bank Web Application

1. Unzip **cubank.zip**
2. ไปยัง directory : frontend
3. พิมพ์คำสั่ง
 - a. npm install
 - b. npm run start
4. เปิด url **http://localhost:3000**

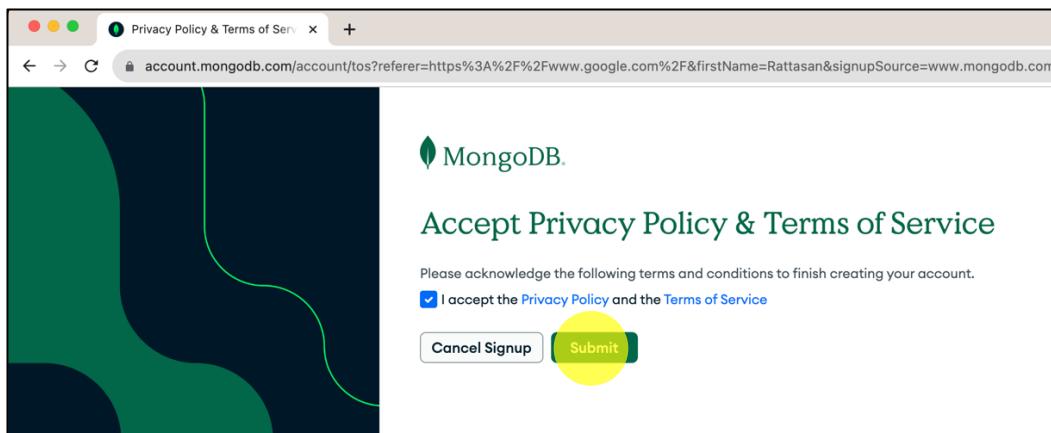
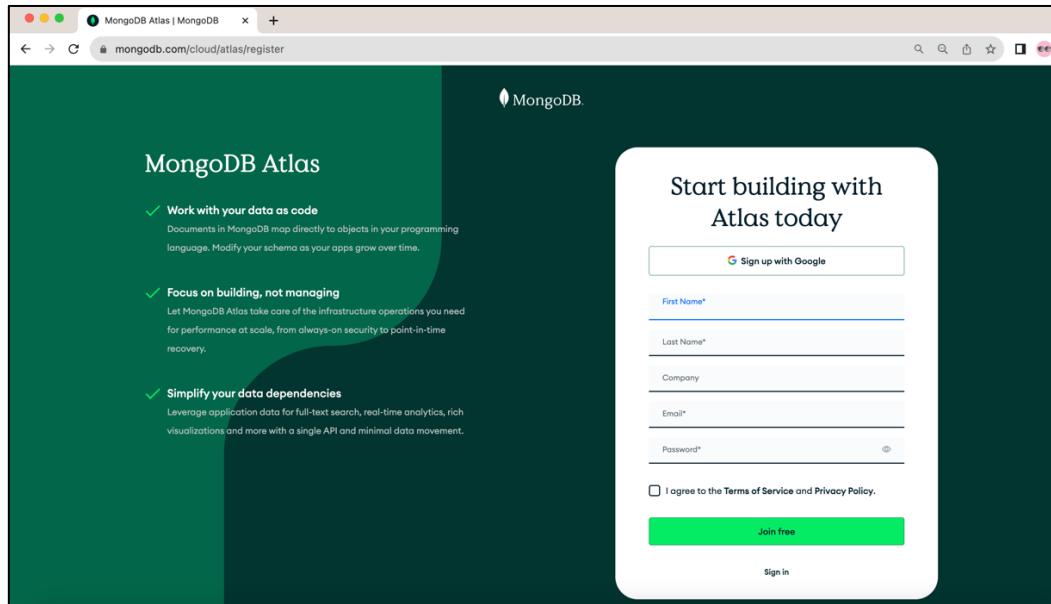


การตั้งค่า MongoDB

1. ไปที่ <https://www.mongodb.com/> > กด start free



2. Register/sign in MongoDB > នៅ submit



3. เลือกคำตอบสำหรับ MongoDB > กด Finish

Atlas Onboarding | Cloud: Mon x +

cloud.mongodb.com/v2/653ce635cb9975586d355102#/setup/personalization

Atlas

Welcome to Atlas. Let's build something great.

Help us tailor your experience by taking a minute to answer the questions below.

GETTING TO KNOW YOU

What is your primary goal?

Learn MongoDB

How long have you been developing software with MongoDB?

New to MongoDB

GETTING TO KNOW YOUR PROJECT

What programming language are you primarily building on MongoDB with?

JavaScript / Node.js

What kind(s) of data will your project use?

You can choose as many as you want

Catalog /... Customer... Not sure...

Will your application include any of the following architectural models?

You can choose as many as you want

Not sure...

Finish

4. ตั้งค่า Database เลือก plan : M0, provider : AWS และตั้งชื่อ database > กด create

MongoDB Deploy your database

Use a template below or set up [advanced configuration options](#). You can also edit these configuration options once the cluster is created.

Plan	Cost
M10	\$0.08/hour
SERVERLESS	\$0.10/1M reads
M0	FREE

Provider: AWS (highlighted), Google Cloud, Azure

Region: N. Virginia (us-east-1) (highlighted)

Name: Cluster0 (highlighted)

Tag (optional): Select or enter key : Select or enter value

Plan: FREE (highlighted)

Create (highlighted)

Free forever! Your M0 cluster is ideal for experimenting in a limited sandbox. You can upgrade to a production cluster anytime.

Access Advanced Configuration

5. ແກ່ນ Security Quickstart > ລົງທະບຽນ username, password > ລົດ create user

The screenshot shows the MongoDB Cloud interface for a project named "Project 0". The left sidebar has a "SECURITY" section with "Quickstart" selected, highlighted in green. The main content area is titled "Security Quickstart" and instructs the user to create users and set up network security controls. It asks how the user would like to authenticate their connection, offering "Username and Password" (selected) or "Certificate". A message box states that a username and password were autogenerated. Below this, instructions say to create a database user using a username and password with default "read and write to any database" privileges. The "Username" field is highlighted with a red arrow, and the "Password" field is also highlighted with a red arrow. A yellow circle highlights the "Create User" button at the bottom. The URL in the browser is cloud.mongodb.com/v2/653ce635cb9975586d355102#/setup/access?includeToast=true.

6. กรอก IP Address : **0.0.0.0/0** , Description : CU Bank > กด Add Entry
* **0.0.0.0/0** = listen on ALL addresses

Enable access for any network(s) that need to read and write data to your cluster.

DEPLOYMENT

- Database
- Data Lake

SERVICES

- Device Sync
- Triggers
- Data API
- Data Federation
- Search
- Stream Processing

SECURITY

Quickstart

- Backup
- Database Access
- Network Access
- Advanced

New On Atlas 3

Goto

Cloud Environment

Use this to configure network access between Atlas and your cloud or on-premise environment. Specifically, set up IP Access Lists, Network Peering, and Private Endpoints.

We added your current IP address. You can connect to your cluster locally from this device.

Add entries to your IP Access List

Only an IP address you add to your Access List will be able to connect to your project's clusters. You can manage existing IP entries via the [Network Access Page](#).

IP Address Description

0.0.0.0/0 cu bank

Add My Current IP Address

Add Entry

IP Access List	Description
a.b.c.d/32	My IP Address
0.0.0.0/0	cu bank

EDIT REMOVE

SECURITY

Quickstart

- Backup
- Database Access
- Network Access
- Advanced

IP Access List	Description
a.b.c.d/32	My IP Address
0.0.0.0/0	cu bank

EDIT REMOVE

Finish and Close

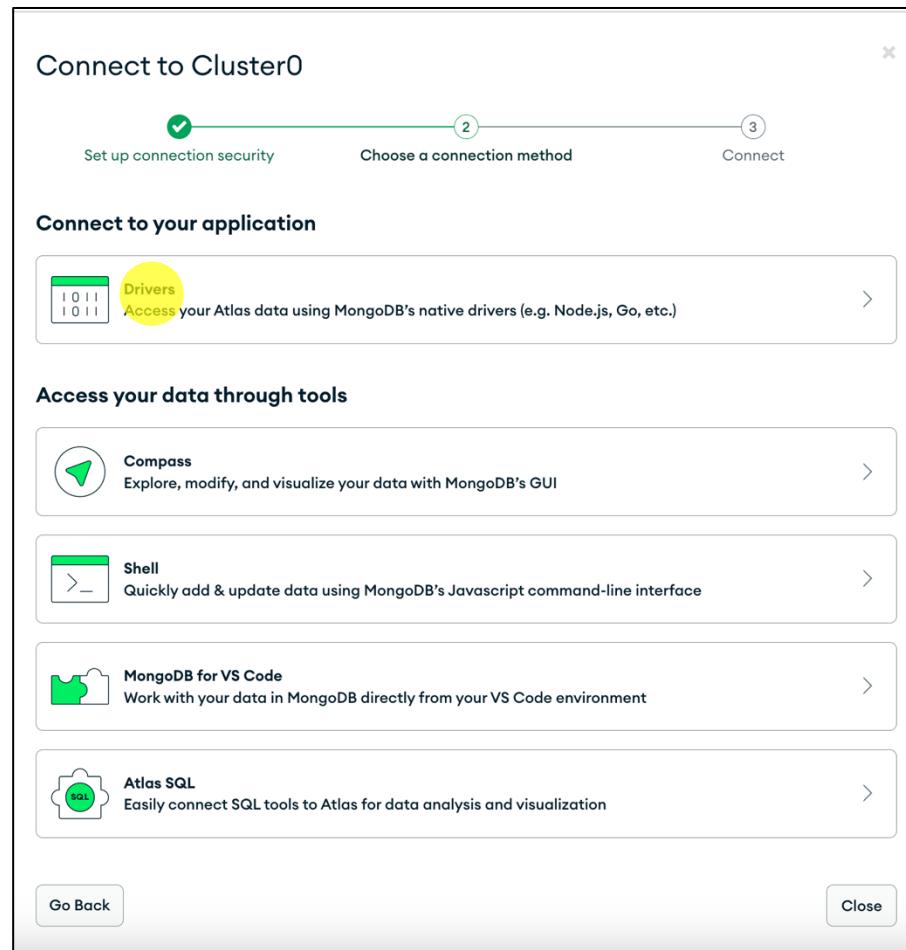
7. Overview > ນາຍ connect

The screenshot shows the MongoDB Atlas Project Overview page for 'Rattasan's Org' (Project 0). The main area displays the 'Database Deployments' section for 'Cluster0'. Key elements include:

- CONNECT** button (highlighted with a yellow circle)
- EDIT CONFIGURATION** button
- FREE** and **SHARED** status indicators
- Add Data**, **Load Sample Data**, and **Data Modeling Templates** buttons
- + Add Tag** button

The left sidebar lists various services and security options. The right sidebar features the **Resources Center** with links to **JAVASCRIPT / NODE.JS**, **Node.js Starter Application**, **Learn MongoDB**, and **GENERAL** resources like **Get Started with Atlas**, **Developer Center**, **Ask the MongoDB Community**, **Data Modeling Patterns**, and **MongoDB Query API**. A **New On Atlas** section at the bottom right highlights recent feature enhancements.

8. กด Drivers



9. เลือก Driver : NodeJs และ version > กด copy connection string

Connect to Cluster0

Set up connection security Choose a connection method Connect

Connecting with MongoDB Driver

1. Select your driver and version

We recommend installing and using the latest driver version.

Driver	Version
Node.js	5.5 or later

2. Install your driver

Run the following on the command line

```
npm install mongodb
```

[View MongoDB Node.js Driver installation instructions.](#)

3. Add your connection string into your application code

View full code sample

```
mongodb+srv://rattasando:<password>@cluster0.dx7dong.mongodb.net/?retryWrites=true&w=majority
```

Replace **<password>** with the password for the **rattasando** user. Ensure any option params are [URL encoded](#).

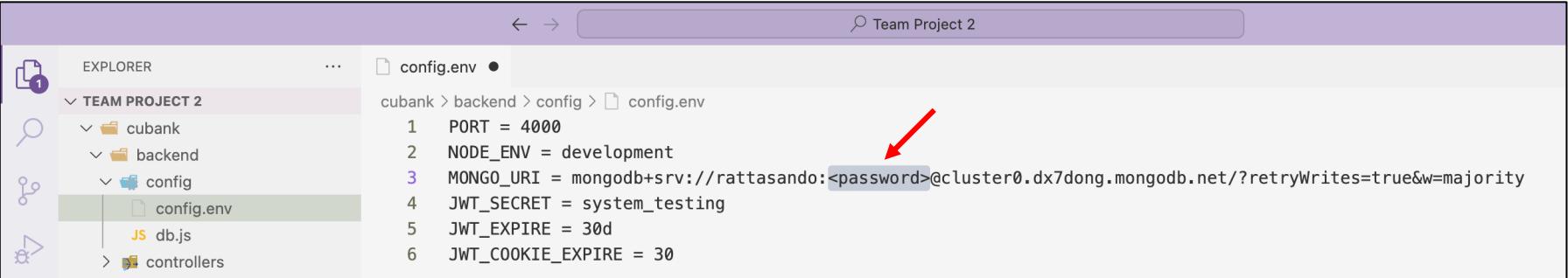


10. เปิด Terminal และไปยัง directory : backend และพิมพ์คำสั่งดังนี้

a.npm install

b.npm install mongodb

11. เปิดไฟล์ config.env > แก้ไขตัวแปร MONGO_URI โดยวาง connection string ที่คัดลอกมา และแทนที่ <password> ด้วยรหัสผ่าน (จากขั้นตอนที่ 5)



```
PORT = 4000
NODE_ENV = development
MONGO_URI = mongodb+srv://rattasando:<password>@cluster0.dx7dong.mongodb.net/?retryWrites=true&w=majority
JWT_SECRET = system_testing
JWT_EXPIRE = 30d
JWT_COOKIE_EXPIRE = 30
```

12. พิมพ์คำสั่ง npm run dev

การทดสอบระบบ

1. Register cu bank account

2. Log in

3. ตรวจสอบที่ MongoDB ว่าข้อมูลที่หอกรหัส register ปรากฏในฐานข้อมูลหรือไม่?