Zastosowanie rozwiązań chmurowych w aplikacjach webowych, grupa nr 2, 03.12.24r.

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Projekt 1.

Instrukcja do wdrożenia aplikacji

1. Na Cloud9 opartym na Ubuntu instalujemy terraforma i ansibla.

   ```
   sudo snap install terraform --classic
   ```

   ```
   pip install --user ansible
   ```

   Dla potwierdzenia instalacji możemy uruchomić poniższe komendy:

   ```
   terraform -version
   ```

   ```
   ansible –version
   ```

2. Klonujemy repozytorium.

   https://github.com/astypczy/ZRCwAW.git

3. Wchodzimy do folderu terraform i uruchamiamy kolejno komendy:

   ```
   terraform init; terraform plan; terraform apply;
   ```

4. Czekamy na zakończenie działania procesu.

5. Używając ssh łączymy się z dwiema instancjami.

```
ssh -i <KEY_PAIR> ubuntu@<EC2_PUBLIC_IP>
```

6. Na maszynie Backend uruchamiamy aplikację używając:

```
java -jar /opt/ZRCwAW/ec2/backend/target/project-0.0.1-SNAPSHOT.jar
```

7. Na maszynie Frontend uruchamiamy aplikację poprzez komendy:

```
cd /opt/ZRCwAW/ec2/frontend
```

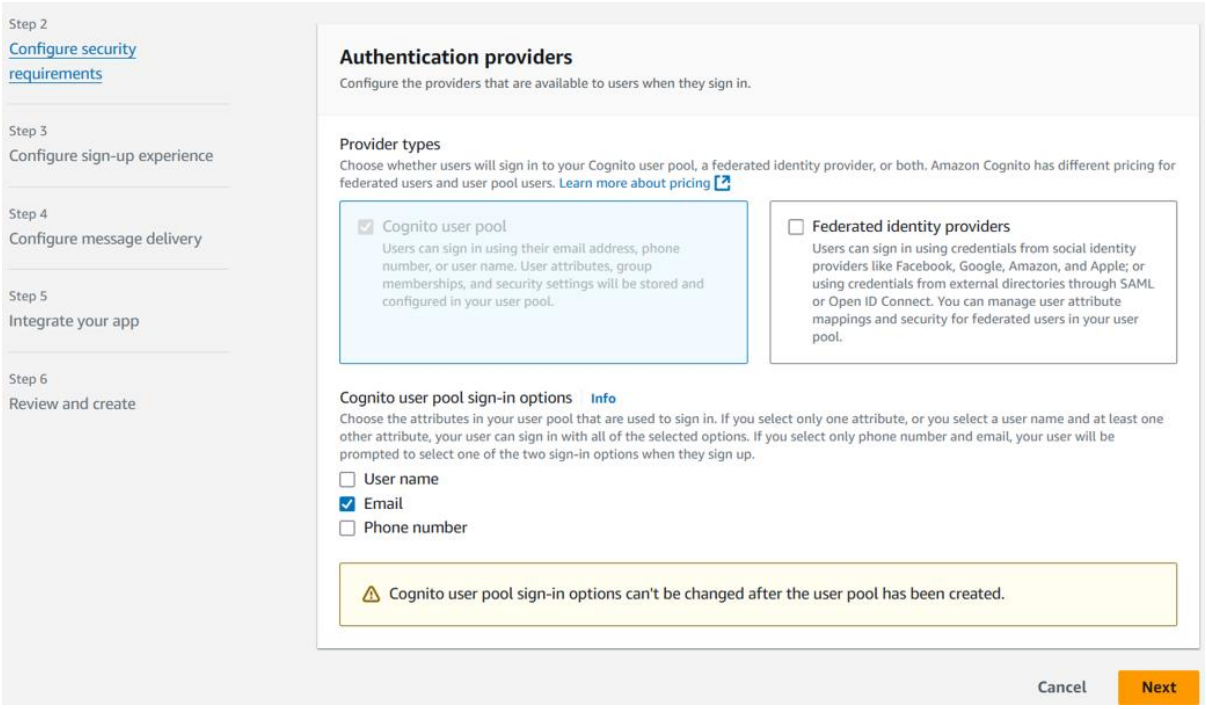
```
sudo ng serve --host 0.0.0.0 --port 4200
```

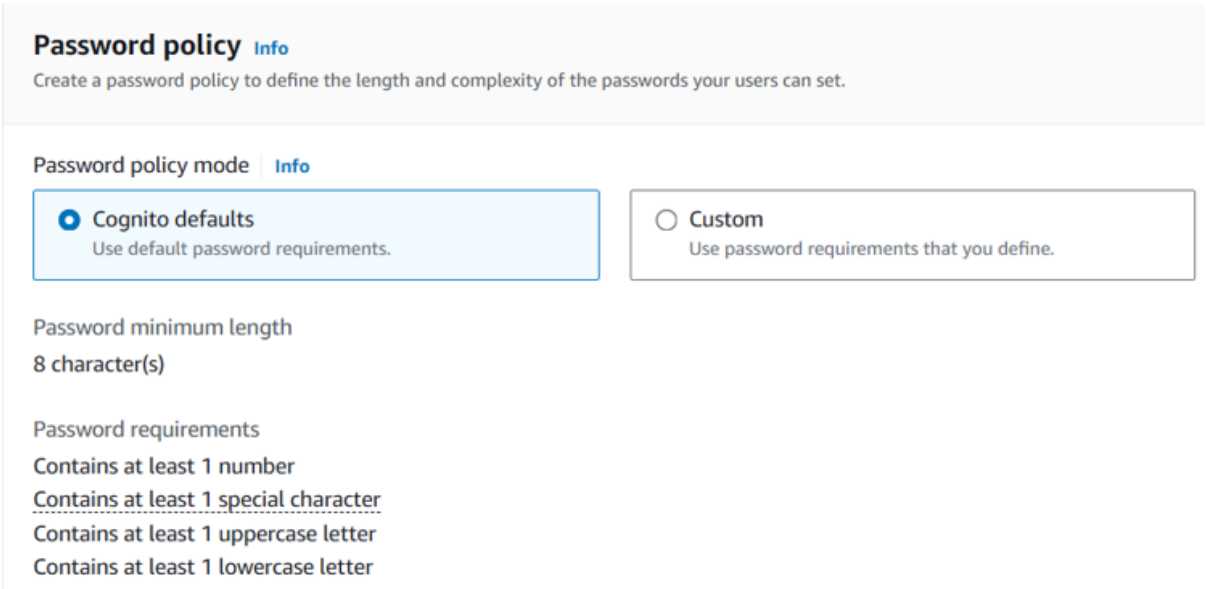
8. Czekamy na zbudowanie aplikacji.

9. Po zbudowaniu możemy wejść na stronę: http://52.20.47.142:4200.

10. Można korzystać z aplikacji.

Tworzenie Cognito





MFA enforcement | Info

- ○ Require MFA - Recommended
  Users must provide an additional authentication factor when signing in.
- ○ Optional MFA
  Users can sign in with a single authentication factor, and can choose to add additional authentication factors.
- ◉ No MFA
  Users can only sign in with a single authentication factor. This is the least secure option.

User account recovery

Configure how users will recover their account when they forget their password. Recipient message and data rates apply.

Self-service account recovery | Info

☑ Enable self-service account recovery - Recommended
Allow forgot-password operations in your user pool. In the hosted UI sign-in page, a "Forgot your password?" link is displayed. When this feature is not enabled, administrators reset passwords with the Cognito API.

Delivery method for user account recovery messages | Info
Select how your user pool will deliver messages when users request an account recovery code. SMS messages are charged separately by Amazon SNS. Email messages are charged separately by Amazon SES. Learn more about pricing.

- ◉ Email only
- ○ SMS only
- ○ Email if available, otherwise SMS
- ○ SMS if available, otherwise email
- ○ SMS if available, otherwise email, and allow a user to reset their password via SMS if they are also using it for MFA

Cancel | Previous | Next

Configure sign-up experience Info

Determine how new users will verify their identities when signing up and which attributes should be required or optional during the user sign-up flow.

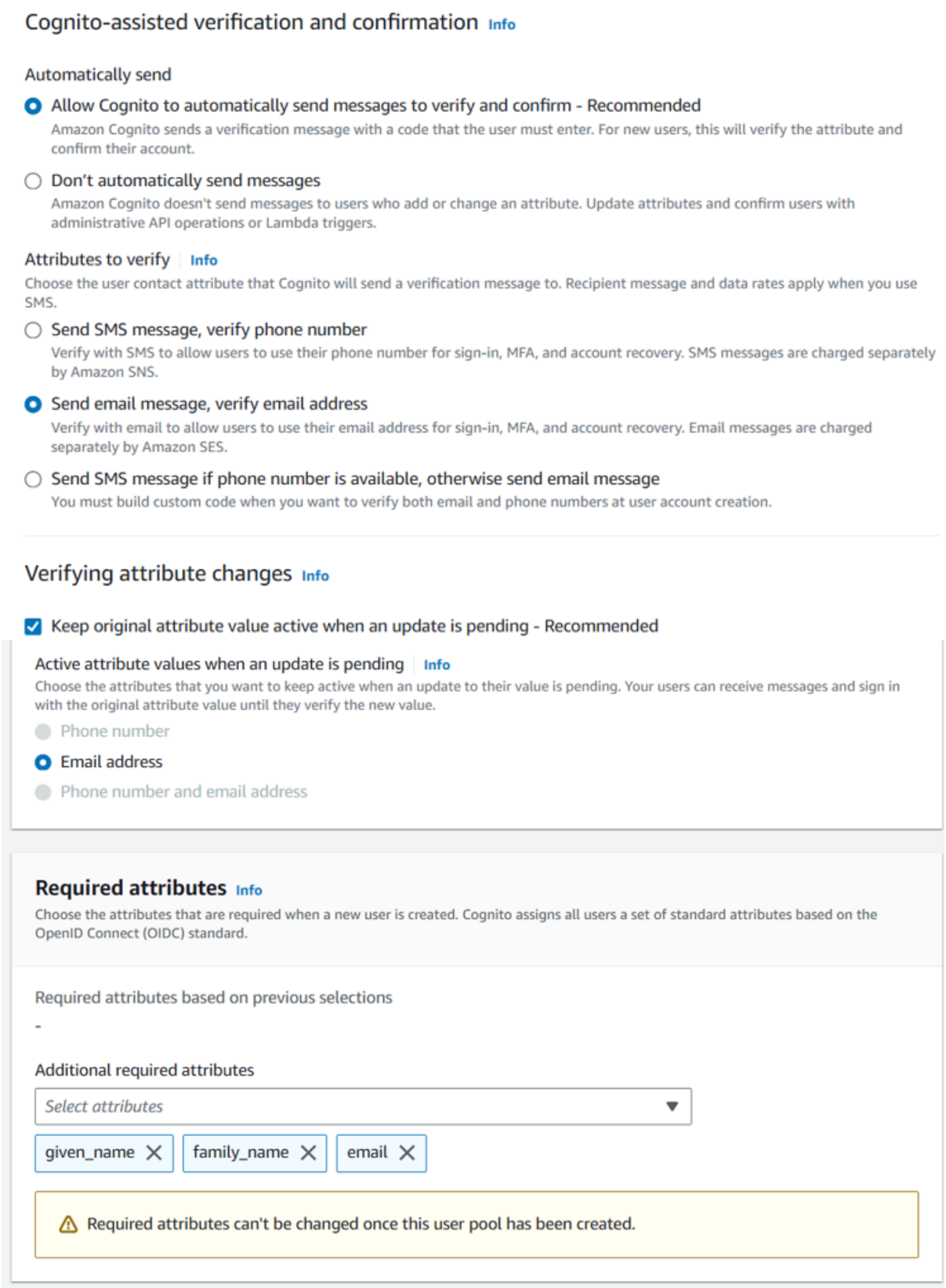
Self-service sign-up Info

Choose whether new users of your app can register for an account themselves.

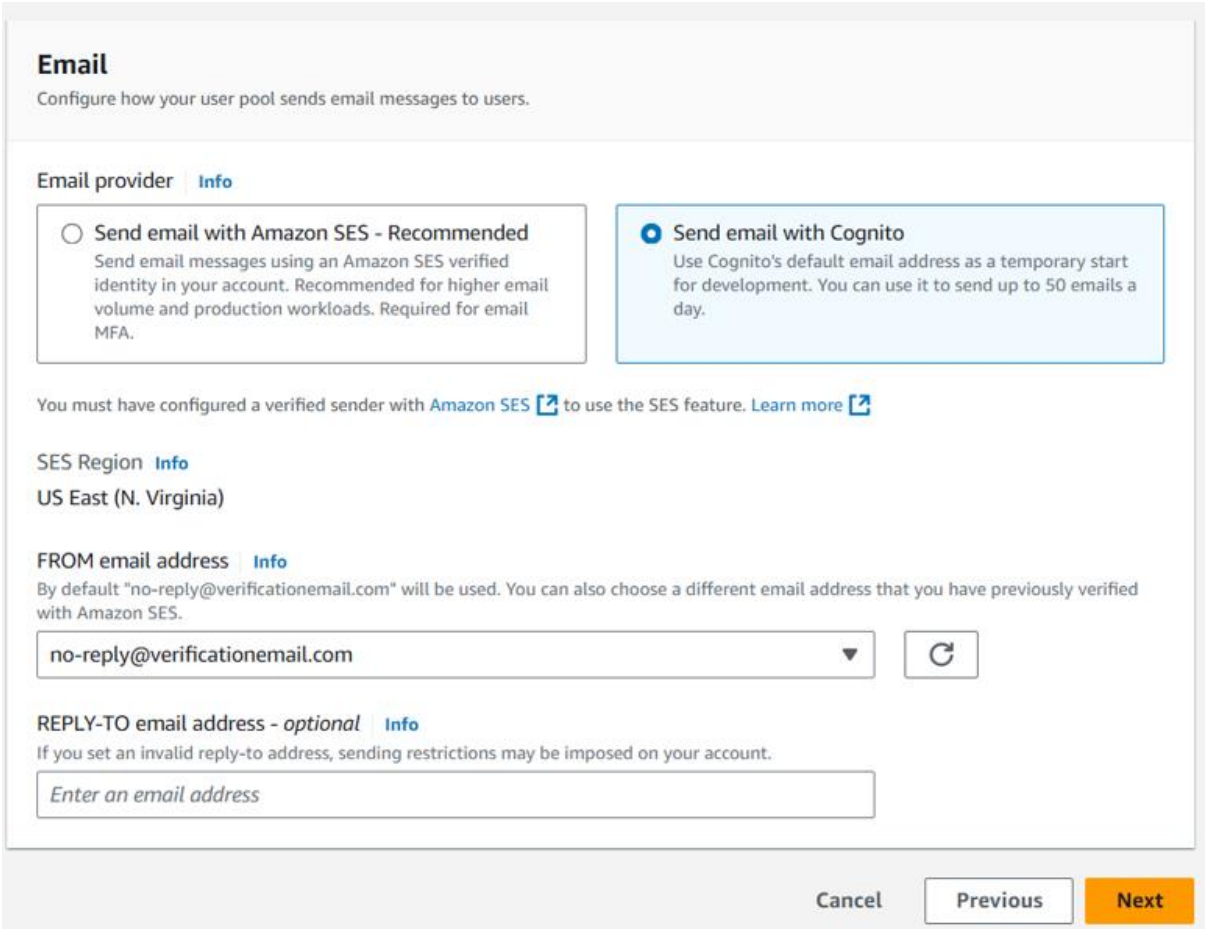
Self-registration | Info

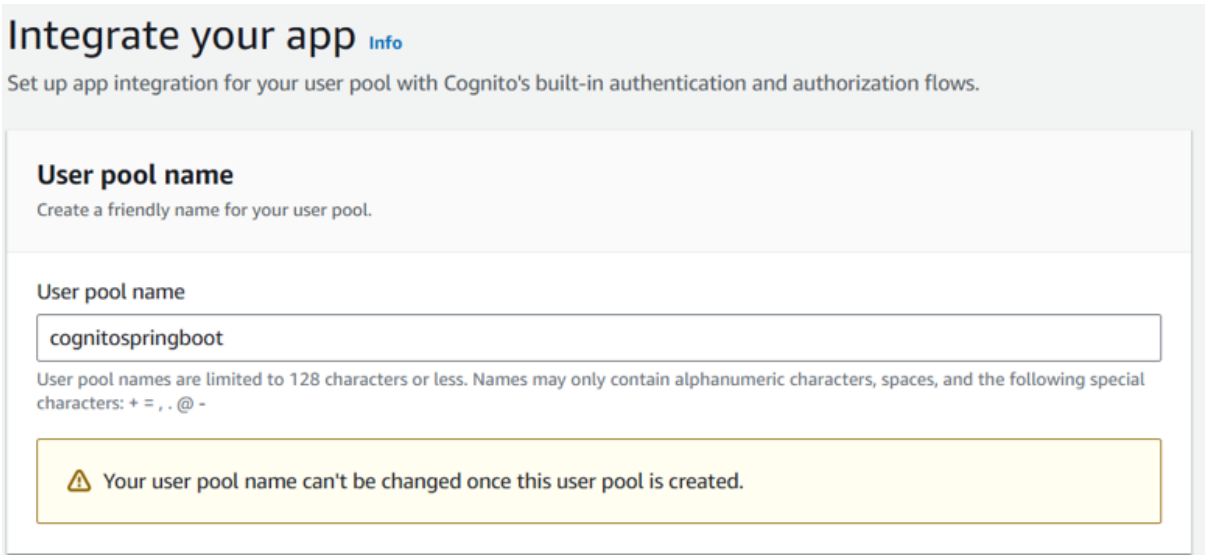
☑ Enable self-registration
Display a "Sign up" link on the sign-in page in the hosted UI, and allow the use of public APIs to create new user accounts. When this feature is not enabled, federation and administrative API operations create user profiles.

ⓘ If you activate user sign-up in your user pool, anyone on the internet can sign up for an account and sign in to your apps. Don't enable self-registration in your user pool until you want to open your app to public sign-up.
Learn more



dodatkowo dodajemy Custom isSeller: String





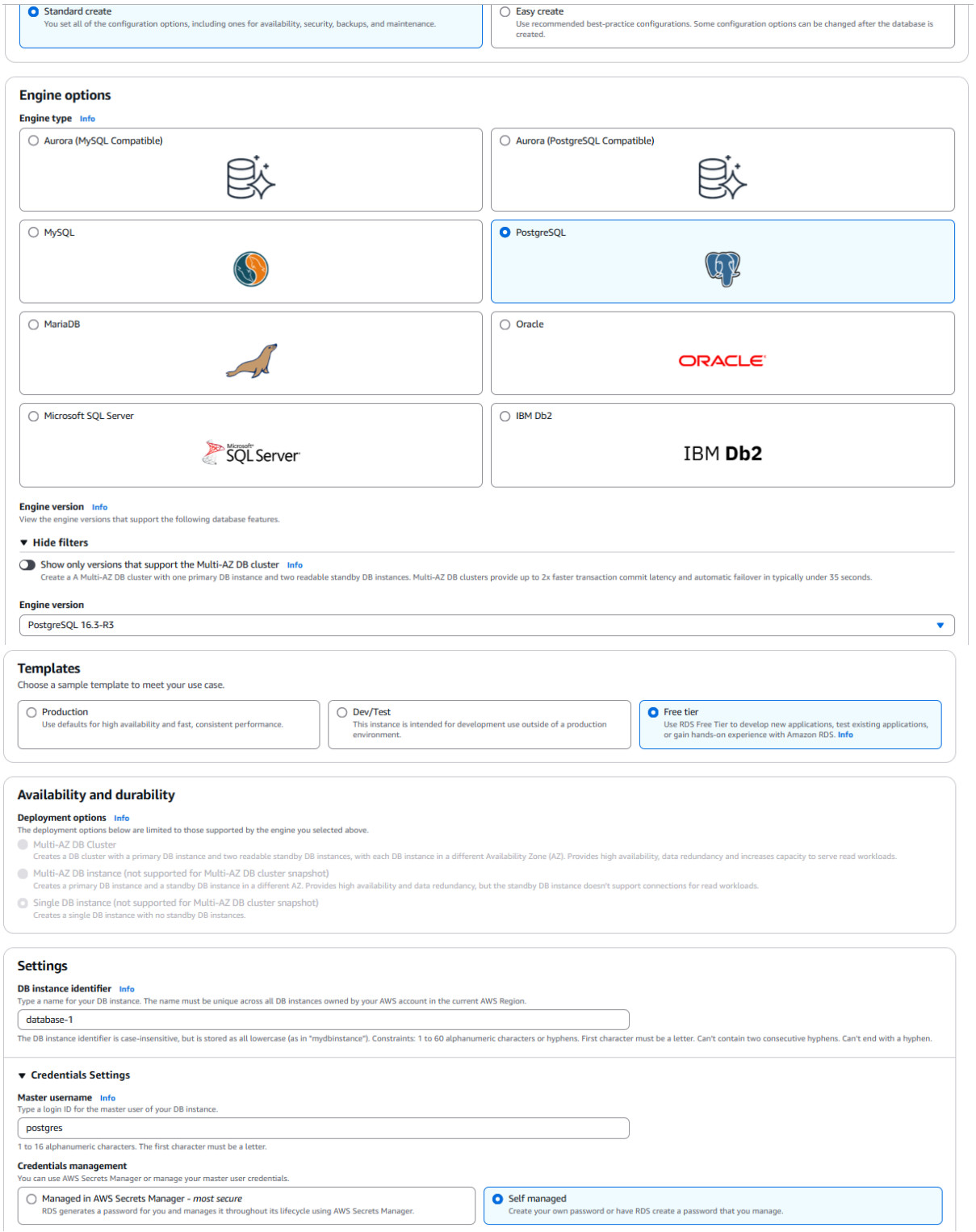
Nie używamy hosted ui

Wybieramy Public client, Don’t generate a client secret, reszta opcji domyślnie

Cognito zostało skonfigurowane.

Tworzenie RDS

W zakładce RDS tworzymy instancję.



Resztę opcji zostawiamy domyślnie.

Tworzenie instancji EC2

Launch an instance Info

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags Info

Name

test

Add additional tags

▼ Application and OS Images (Amazon Machine Image) Info

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Search our full catalog including 1000s of application and OS images

Recents | Quick Start

Amazon Linux | macOS | Ubuntu | Windows | Red Hat | SUSE Linux | D

Browse more AMIs

Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Ubuntu Server 24.04 LTS (HVM), SSD Volume Type — Free tier eligible

ami-0866a3c8686eaeeba (64-bit (x86)) / ami-0325498274077fac5 (64-bit (Arm))

Virtualization: hvm ENA enabled: true Root device type: ebs

Ubuntu Server 24.04 LTS (HVM),EBS General Purpose (SSD) Volume Type. Support available from Canonical (http://www.ubuntu.com/cloud/services).

Canonical, Ubuntu, 24.04, amd64 noble image

Architecture	AMI ID	Username	
64-bit (x86)	ami-0866a3c8686eaeeba	ubuntu	Verified provider

Instance type Info | Get advice

Instance type

t3.medium
Family: t3 2 vCPU 4 GiB Memory Current generation: true
On-Demand SUSE base pricing: 0.0979 USD per Hour
On-Demand Windows base pricing: 0.06 USD per Hour
On-Demand Linux base pricing: 0.0416 USD per Hour
On-Demand Ubuntu Pro base pricing: 0.0451 USD per Hour
On-Demand RHEL base pricing: 0.0704 USD per Hour

All generations

Compare instance types

Additional costs apply for AMIs with pre-installed software

Key pair (login) Info

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - *required*

vockey

Create new key pair

Network settings Info

Edit

Network Info

vpc-04ad86e4bf7e5da9b

Subnet Info

No preference (Default subnet in any availability zone)

Auto-assign public IP Info

Enable

Additional charges apply when outside of free tier allowance

Firewall (security groups) Info

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

(•) Create security group ( ) Select existing security group

We'll create a new security group called '**launch-wizard-1**' with the following rules:

[x] Allow SSH traffic from
Helps you connect to your instance
Anywhere 0.0.0.0/0

[ ] Allow HTTPS traffic from the internet
To set up an endpoint, for example when creating a web server

[x] Allow HTTP traffic from the internet
To set up an endpoint, for example when creating a web server

⚠ Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only. ×