Przygotowanie platformy

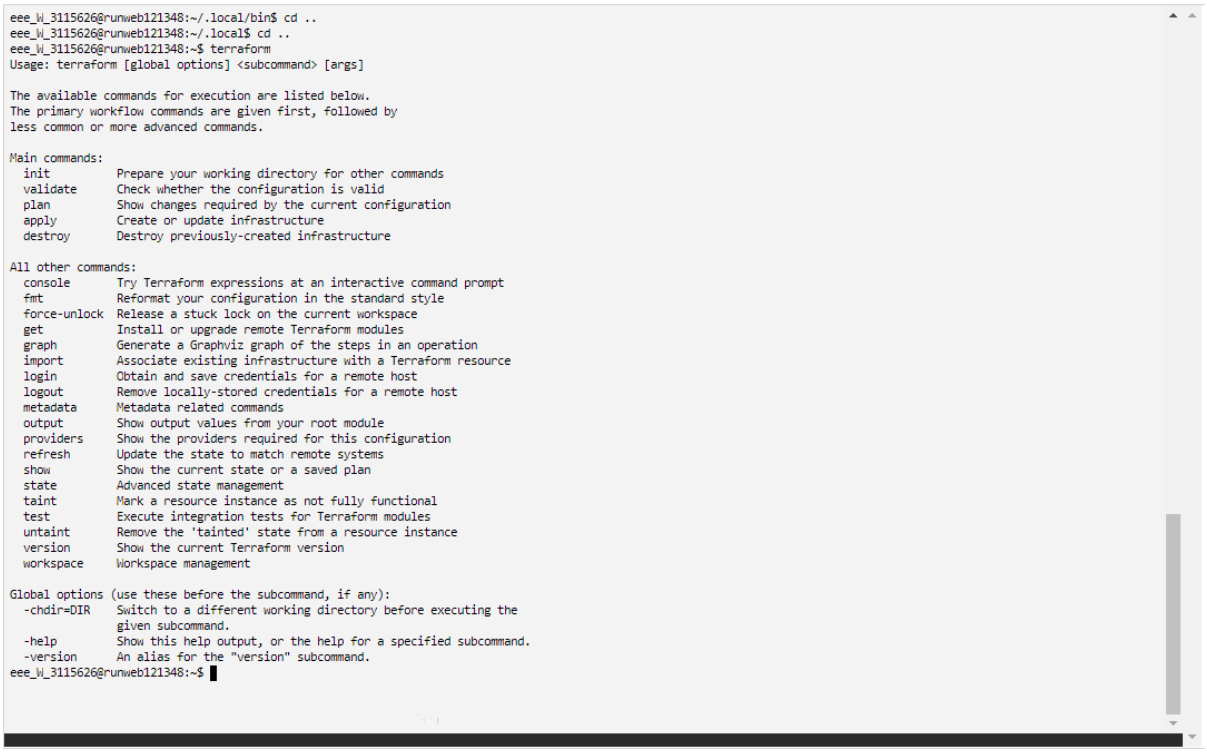
Instalacja terraform

wget https://releases.hashicorp.com/terraform/1.8.1/terraform_1.8.1_linux_386.zip

unzip terraform_1.8.1_linux_386.zip

echo "export PATH=\$PATH:~/.local/bin" >> ~/.bashrc

cp terraform ~/.local/bin



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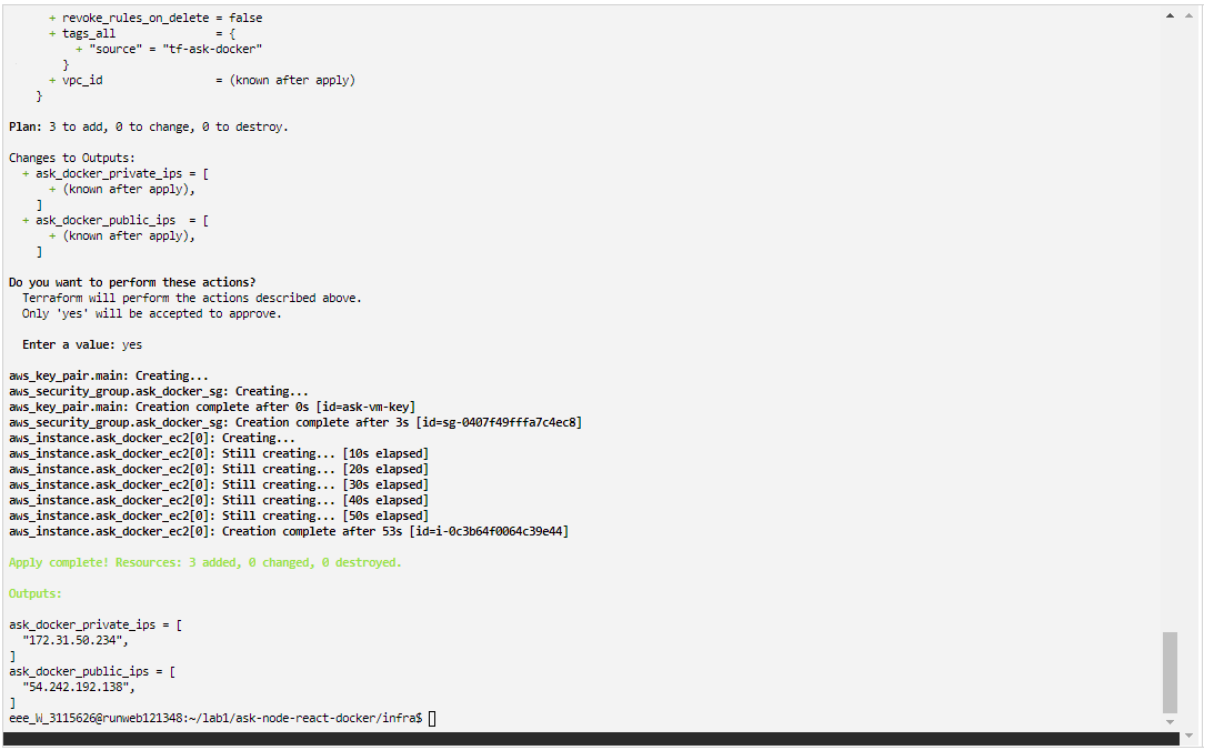
Uruchomienie Linuxa przez terraform

ssh-keygen -t ed25519 -f ~/.ssh/id_ed25519

git clone https://github.com/phajder/ask-node-react-docker

terraform init

terraform apply -var "public_key=$(< ~/.ssh/id_ed25519.pub)"



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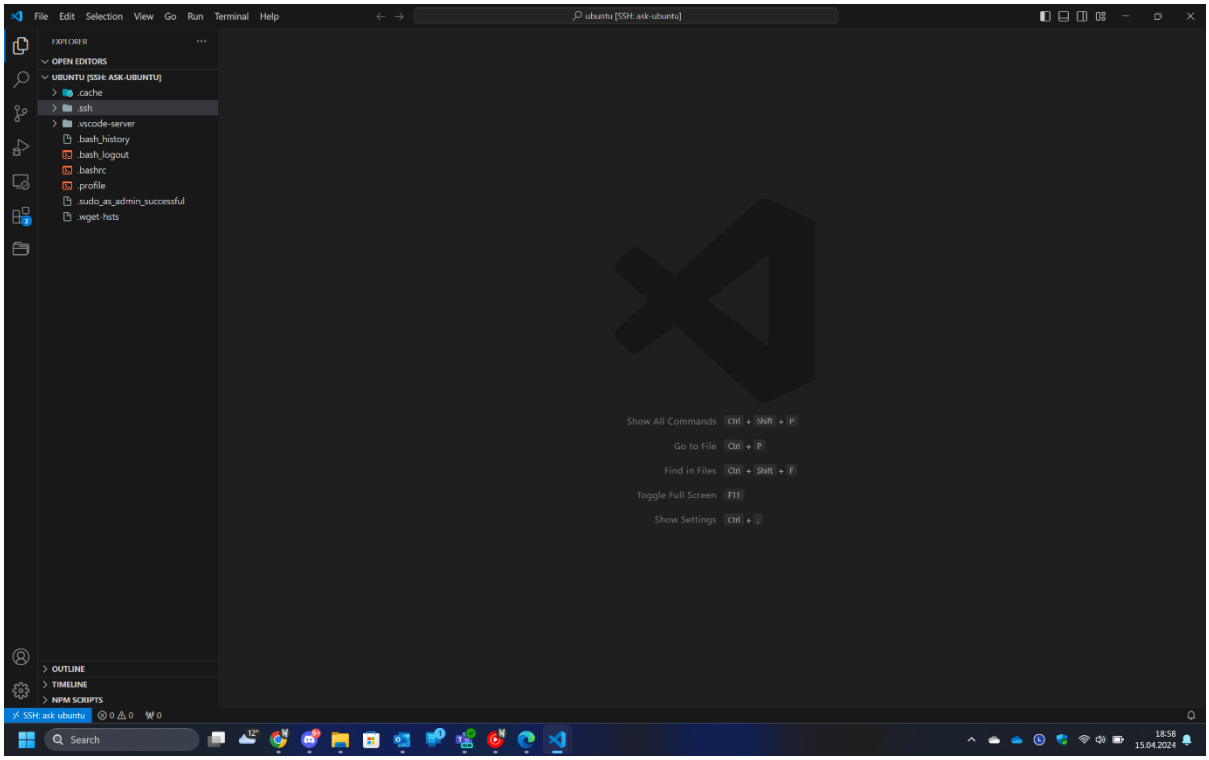
Skonfigurowanie Visual Studio Code

Pobranie wtyczki Remote-SSH

Ustawienie konfiguracji połączenia

```
Host ask-ubuntu
  HostName <adres ip>
  User ubuntu
  Port 22
  IdentityFile <sciezka do klucza publicznego>
```



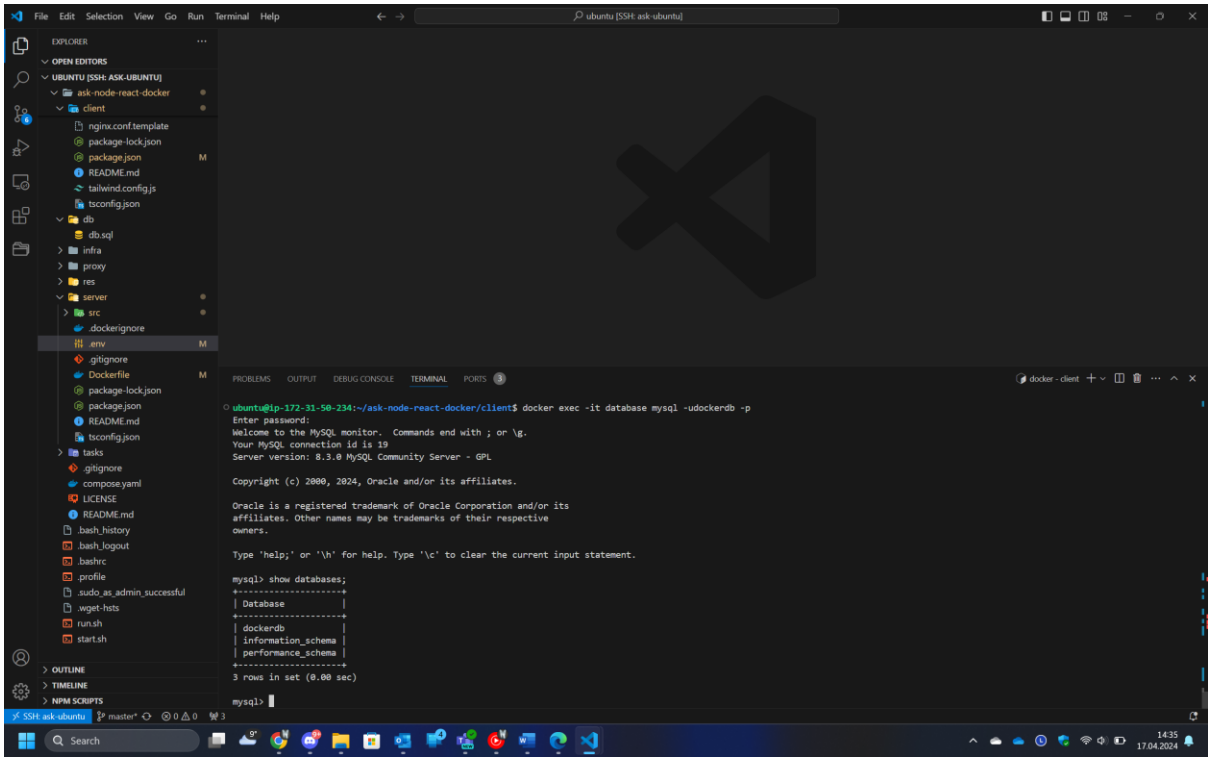
Skonfigurowanie bazy danych

docker pull mysql

docker run --name database -e MYSQL_ROOT_PASSWORD=<haslo root> -d mysql:latest

docker exec -i database sh -c 'exec mysql -uroot -p"$MYSQL_ROOT_PASSWORD"' < ~/ask-node-react-docker/db/db.sql

docker exec -it database mysql -udockerdb -p



Skonfigurowanie aplikacji backendowej

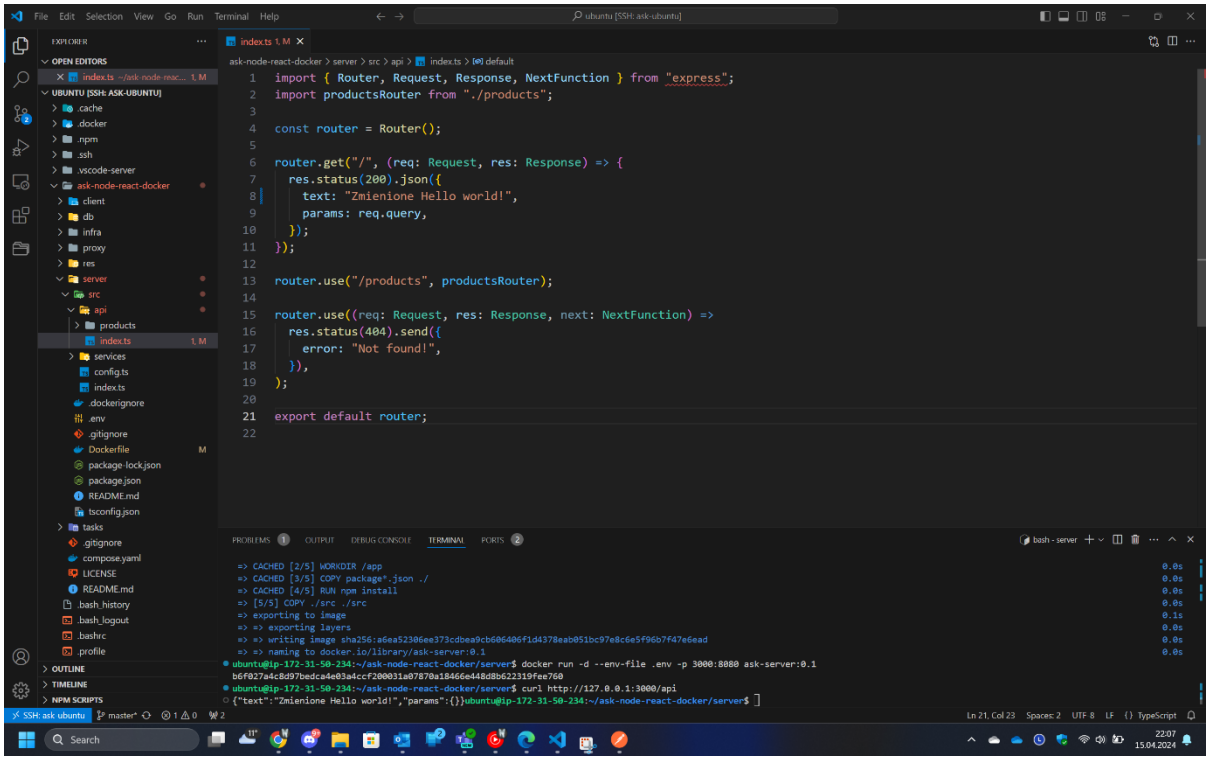
docker pull node

Plik Dockerfile

```
FROM node:latest

WORKDIR /app

COPY package*.json ./

RUN npm install

EXPOSE ${PORT}

CMD ["npm", "run", "dev"]
```

docker build -t ask-server:0.1 ~/ask-node-react-docker/server/

docker run -d --name backend --env-file ~/ask-node-react-docker/server/.env -p 8000:8080 -v ~/ask-node-react-docker/server/src:/app/src ask-server:0.1



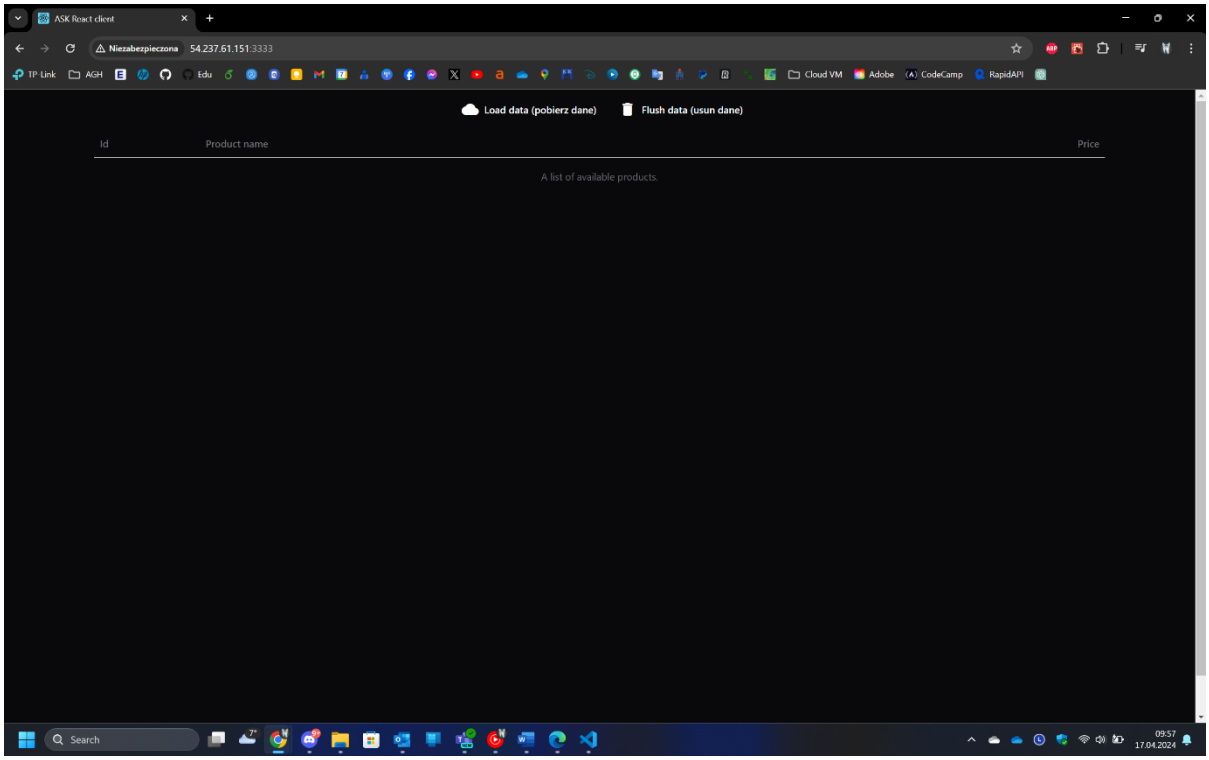
Skonfigurowanie aplikacji frontendowej

Plik Dockerfile

```
FROM node:latest

WORKDIR /app

COPY package*.json ./
COPY *.config.js ./
COPY *.json ./

RUN npm install

CMD ["npm", "start"]
```

docker build -t ask-front:0.1 ~/ask-node-react-docker/client/

docker run -d --name frontend -e CI=true -p 3333:3000 -v ~/ask-node-react-docker/client/src:/app/src -v ~/ask-node-react-docker/client/public:/app/public ask-front:0.1



Połączenie wszystkich trzech aplikacji

Tworzymy własną sieć

docker network create --subnet=192.168.46.0/24 custom_net

Ustawiamy odpowiednie adresy IP na kontenerach oraz w plikach konfiguracyjnych aplikacji

Plik .env

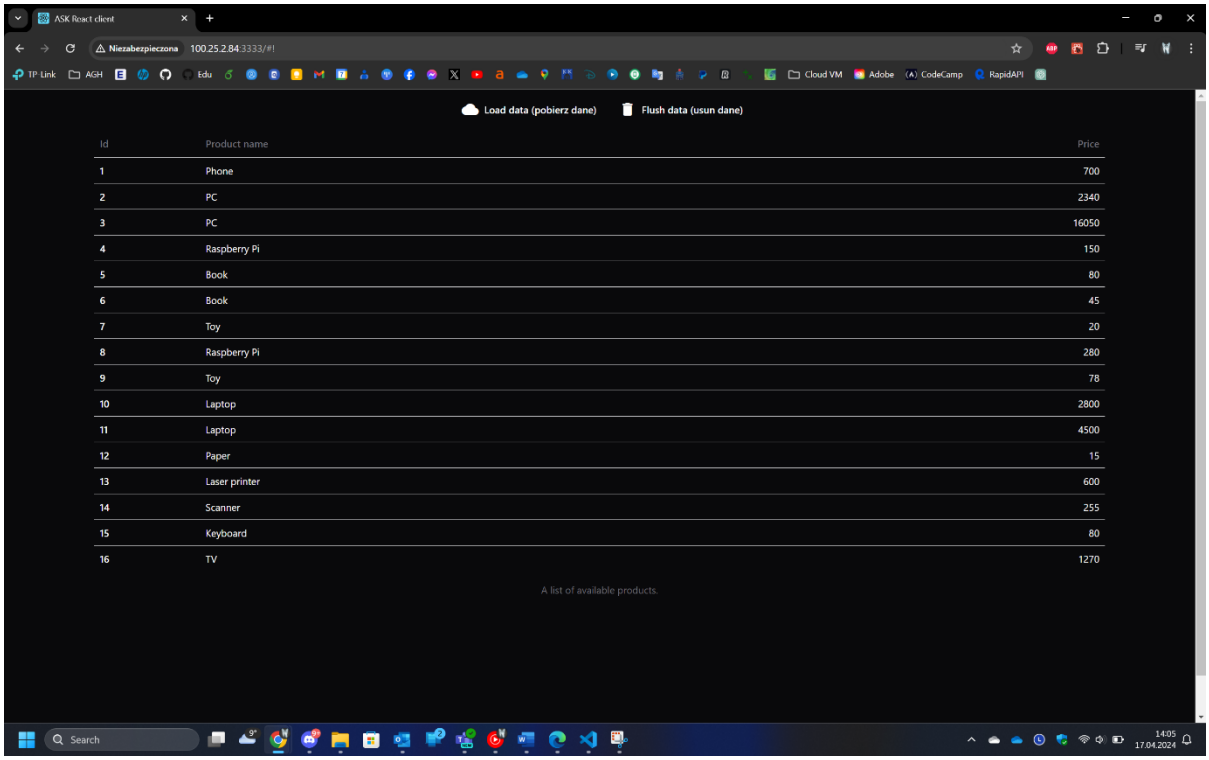
```
# Database
DB_HOST=192.168.46.100
DB_PORT=3306
DB_NAME=dockerdb
DB_USER=dockerdb
DB_PSWD=Zaq12wsx
```

Plik package.json

```
"proxy": "http://192.168.46.101:8080",
```

Uruchamiamy kontenery z poprawnymi adresami IP. Do komendy docker run dodajemy odpowiednie parametry:

1. **Baza danych:** --net custom_net --ip 192.168.46.100
2. **Backend:** --net custom_net --ip 192.168.46.101
3. **Frontend:** --net custom_net --ip 192.168.46.102



Aplikacja działa poprawnie.