

Building a Development Platform on Top of Kubernetes

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What is a Development Platform?

An Internal Developer Platform (IDP) refers to a set of tools, services, and infrastructure provided within an organization to streamline and enhance the development workflow for its software engineering teams.

— ChatGPT 3.5

It is key in defining the **developer experience** for your organization.

Why is it important?

**Becuase the developer
experience for cloud
native apps is
broken**

Current Cloud Native DevX

Todos Backed Up

Oktetodo

Add

Todo

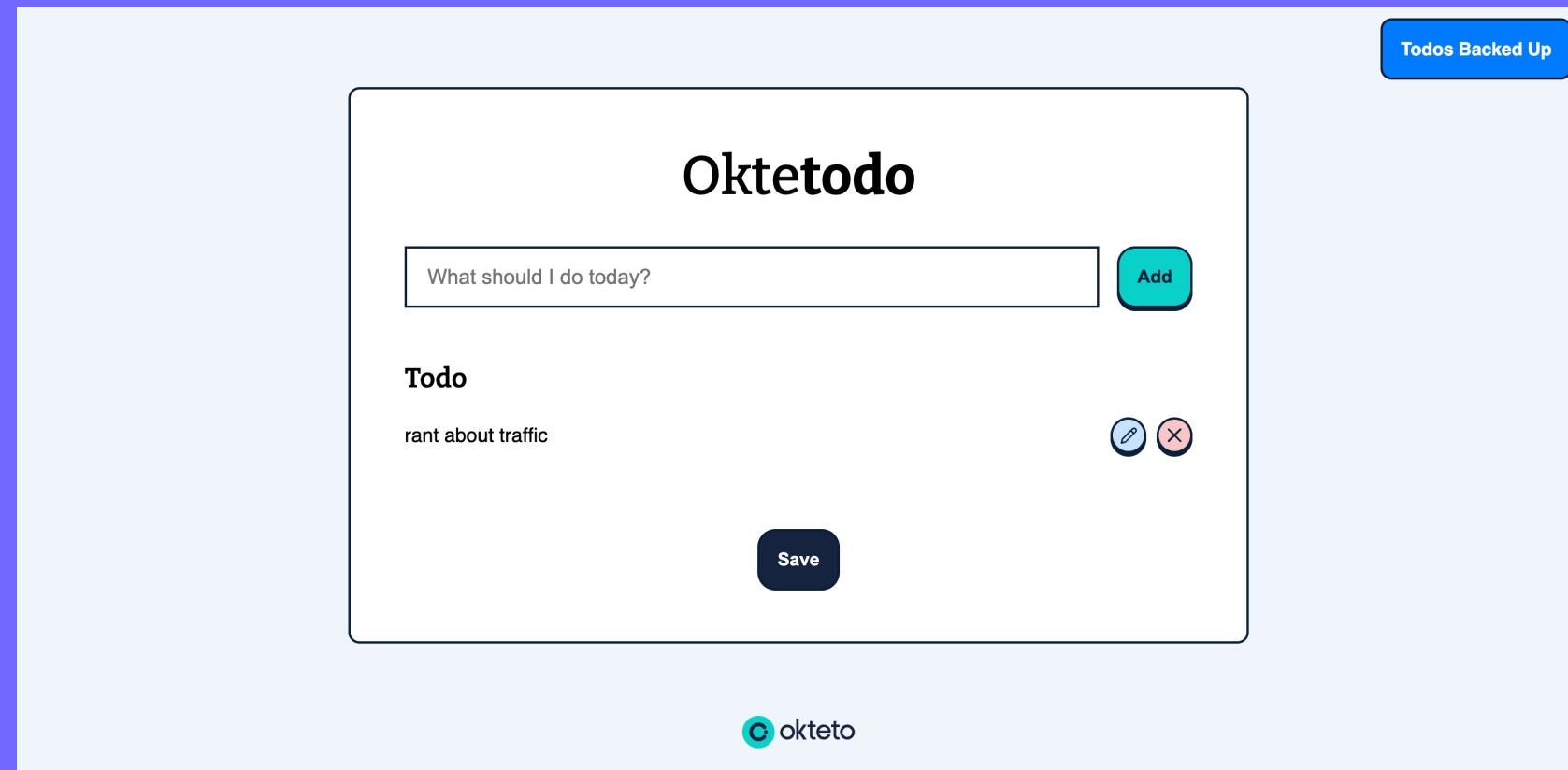
rant about traffic

Save

okteto

Current Cloud Native DevX

- microservices code
- databases
- cloud services
- devops tools like terraform, helm, etc



Why Kubernetes for Dev Platforms?

- Containerized Environment
- Consistency Across Environments
- Service Discovery
- Scalability and Resource Efficiency
- Ecosystem and Extensibility

Okteto CLI

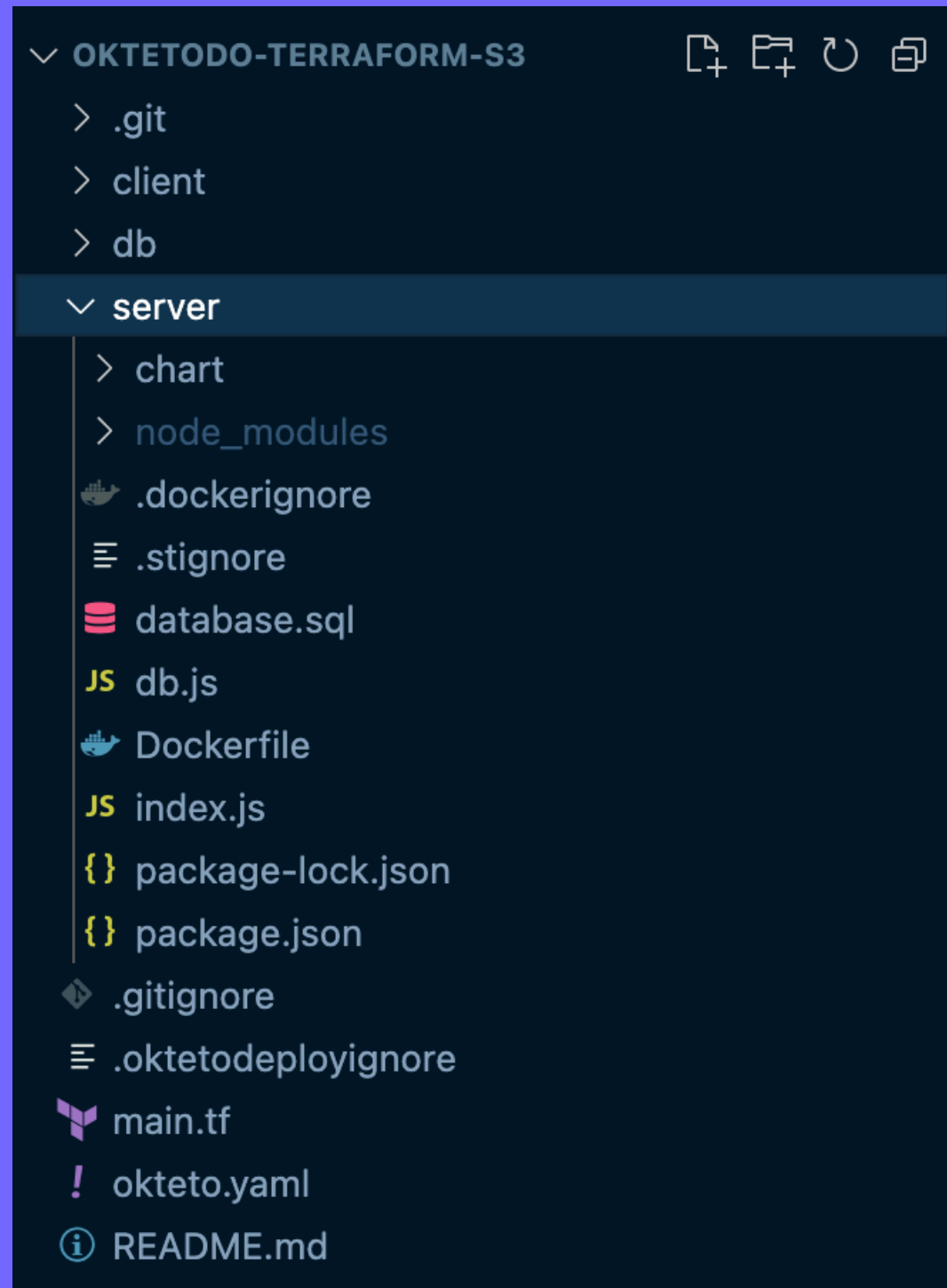
- github.com/okteto/okteto
- **Platform Engineers:** Define dev environments which will run on K8s
- **Developers:** One click deploy and develop applications directly in the cluster (`okteto up`)

Demo!

Try it out!

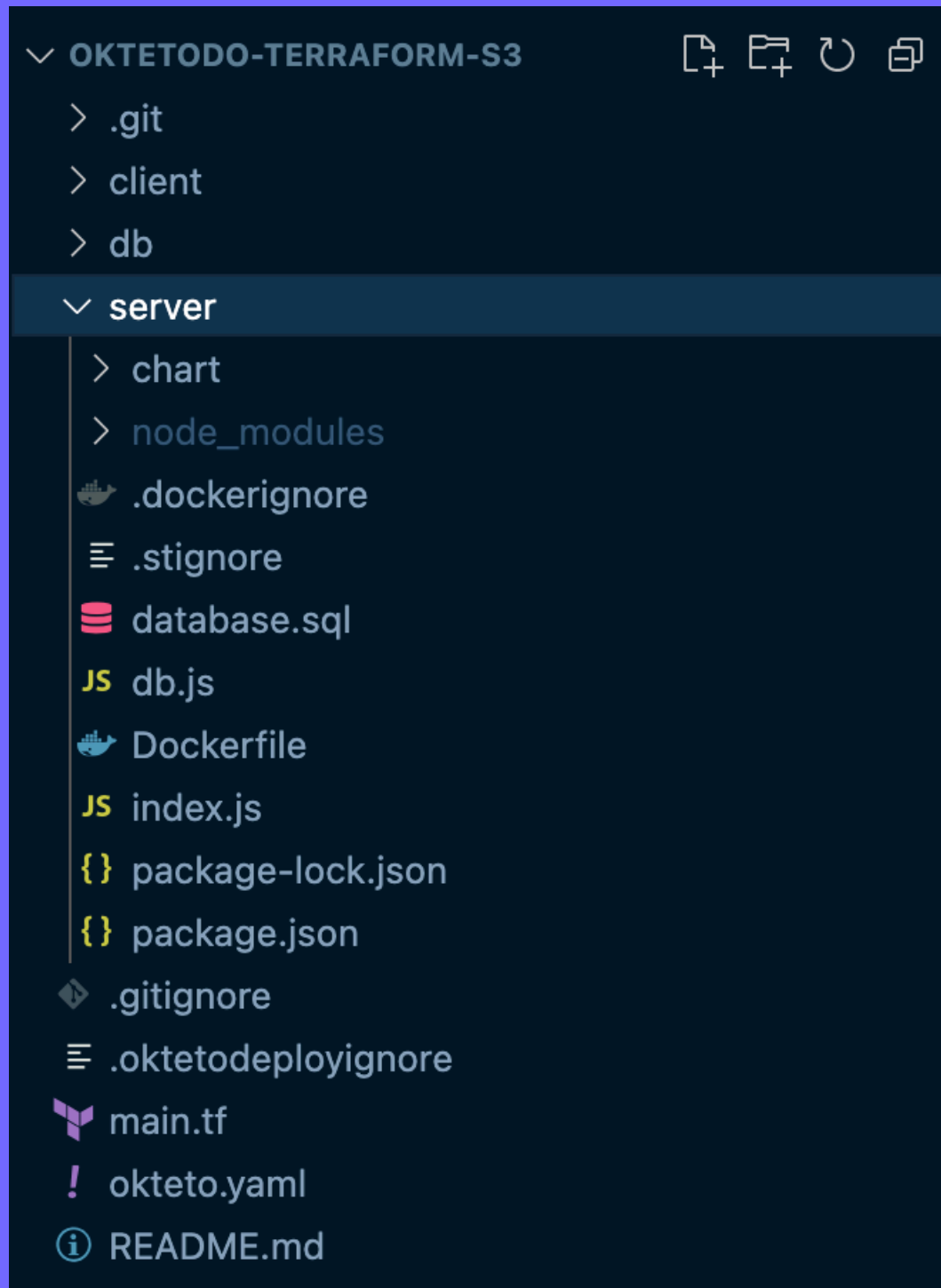


Build Section



```
build:
  server:
    context: server
  client:
    context: client
```

Deploy Section

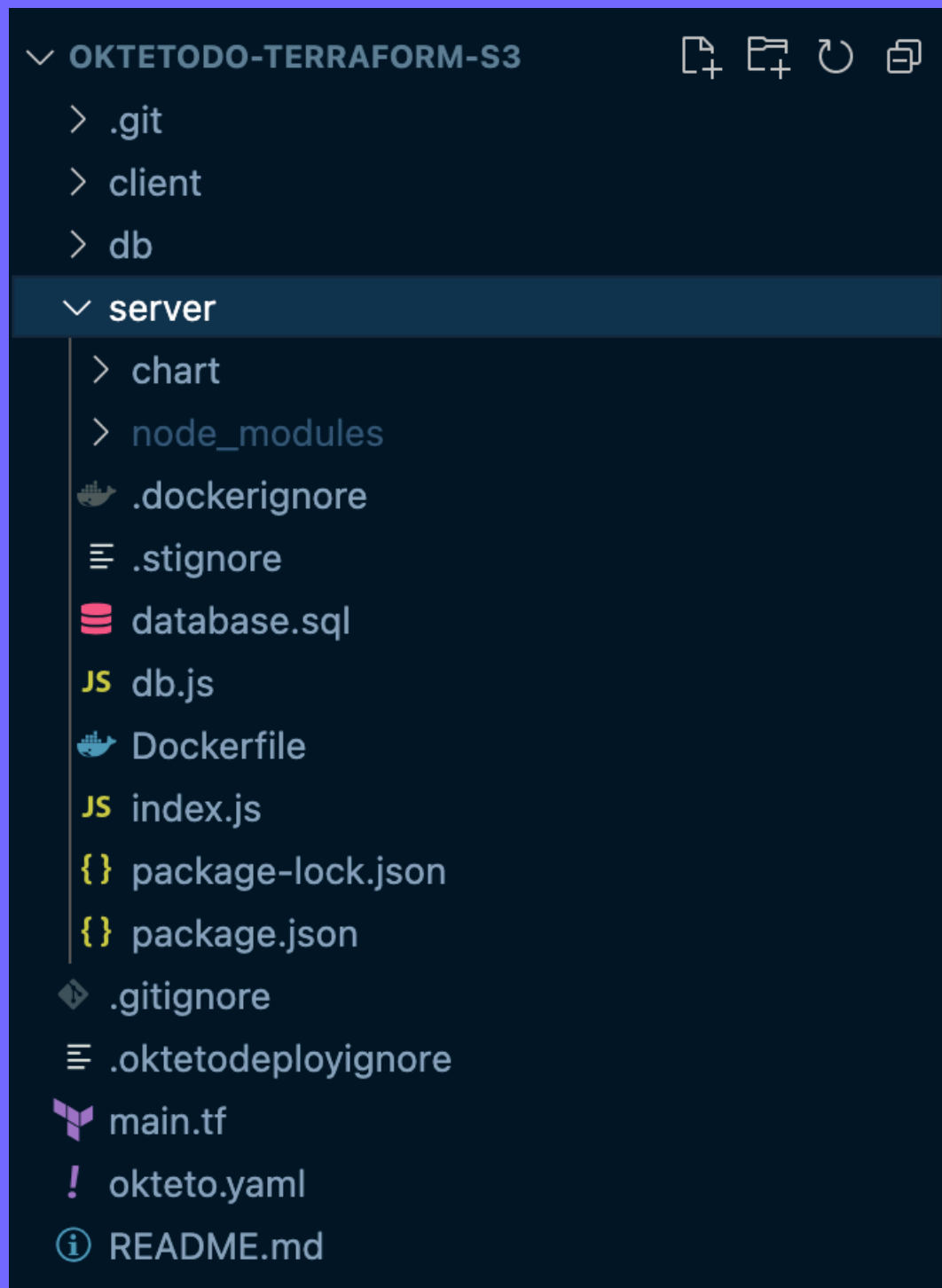


```
deploy:
  image: hashicorp/terraform:1.4

  commands:
    - name: Create the AWS S3 Bucket
      command: |
        terraform init -input=false
        terraform apply -input=false -auto-approve

    - name: Create the AWS secret
      command: |
        kubectl apply -f aws-secret.yaml
```

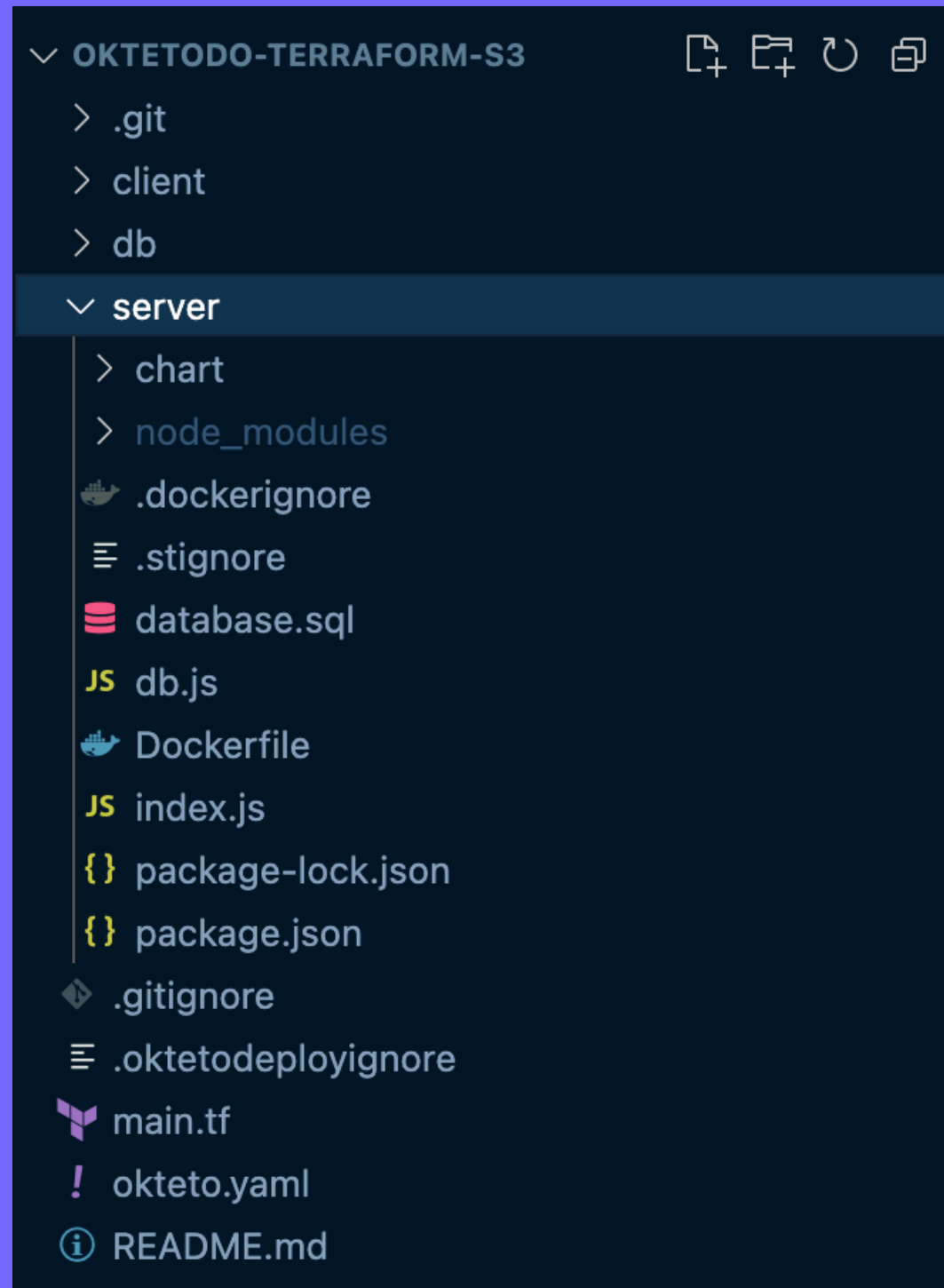
Deploy Section



deploy:

- ...
- name: Deploy the DB
command: helm upgrade --install db db/chart
- name: Deploy the Node.js Backend
command: helm upgrade --install server server/chart \ --set image=\${OKTETO_BUILD_SERVER_IMAGE} \ --set bucket="\$S3_BUCKET_NAME"
- name: Deploy the React Frontend
command: helm upgrade --install client client/chart \ --set image=\${OKTETO_BUILD_CLIENT_IMAGE}

Develop Section



dev:

server:

command: bash

sync:

- server:/app

client:

command: npm start

sync:

- client:/app

**Thanks
for attending!**

Try Okteto for free at: okteto.com

Feedback + Giveaway!



