Why We Chose to Build a Developer Platform on Top of Kubernetes

Arsh Sharma, Okteto

Twitter: @RinkiyaKeDad

LinkedIn: /arsh4

What is a Developer Platform?

Gartner predicts that by 2026, 80% of large software engineering organizations will have platform engineering teams, up from 45% in 2022. For most organizations, the first step to embracing platform engineering is adopting a developer platform.

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

Why is it important?

Becuase the developer experience for cloud native apps is

Current Cloud Native DevX



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

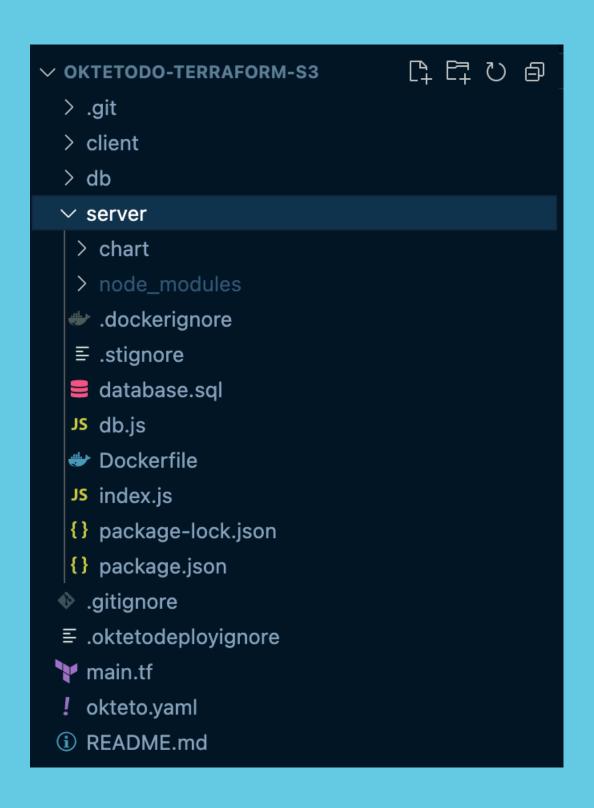


Okteto CLI

- 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)

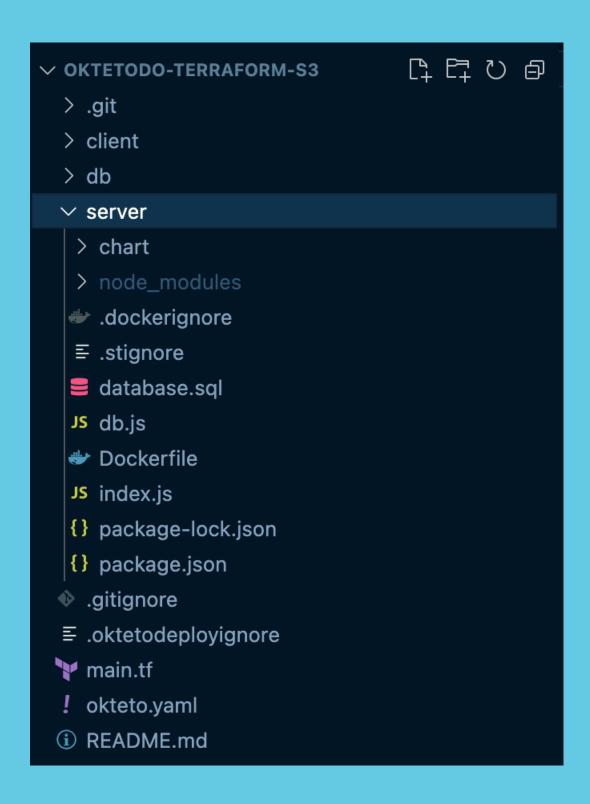






Build Section

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



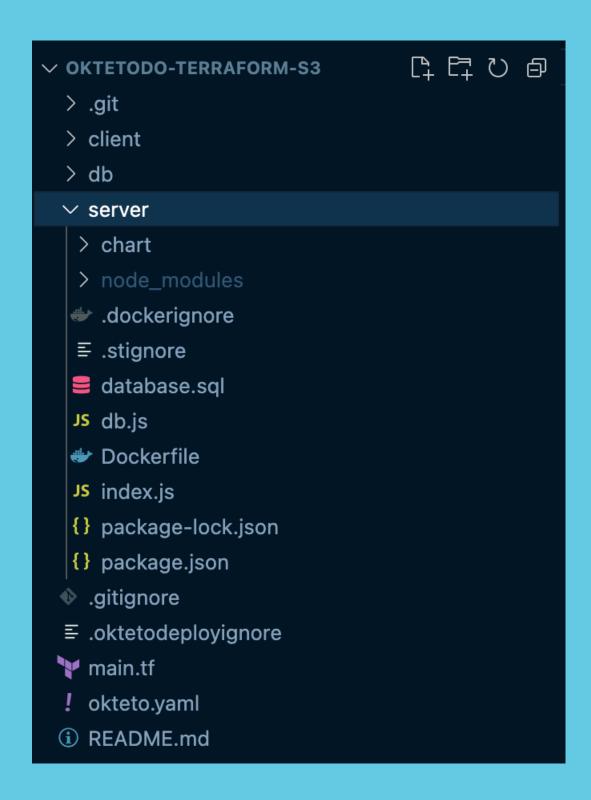
@oktetohq

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

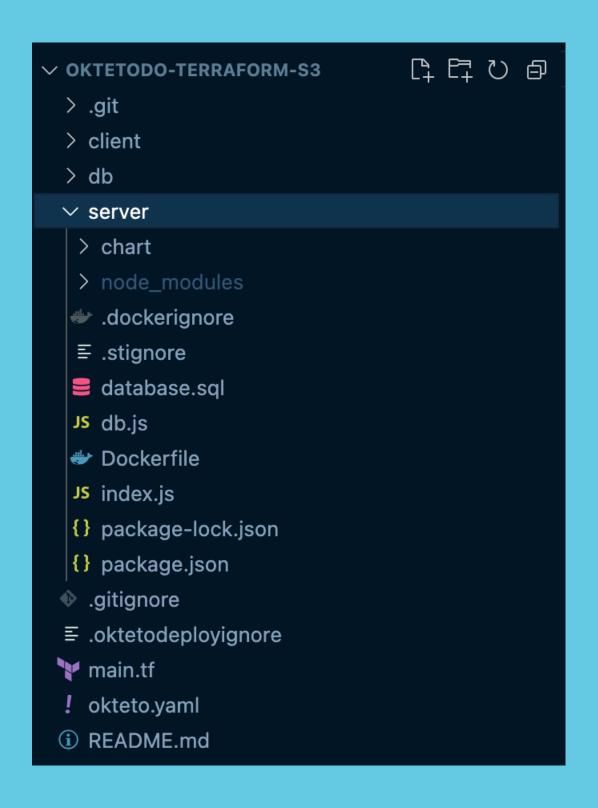
- name: Create the AWS secret
        command: |
            kubectl apply -f aws-secret.yaml
```



@oktetohq

Deploy Section

```
- 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
```


Try Okteto for free at: okteto.com

