Pioneer Project

---Improving yourself continuously and you are seeing the light !

1 Write home page with basic react and sass CSS:

1-1 sass is a package of npm and we can use it to connect sass files and react project.

1-2 you can use background for img when you need to adjust the image.

1-3 Atttention where is the home directory when you write the path. It can be different. Sass files and src in html are totally different.

2 Configure Postgres DB in k8s environment:

<https://arctype.com/blog/deploy-postgres-kubernetes/>

2-1 We are using helm: the package manager for k8s.

Helm: Chart - Contains Information required to create an application instance in Kubernetes

Config - Contains the configuration information that can be merged with a chart to create a releasable object.

Release - A running instance of a chart, combined with a specific config.

2-2 we can use homebrew to install helm. Using existing helm charts is easier instead of building a service from scratch. We can search Artifact Hub --- official distributed community helm chart repo. <https://artifacthub.io/>

2-3 The helm install command will make the deployment using chart happen:

helm install postgres-pioneer --set auth.postgresPassword=cfan bitnami/postgresql

Note: We have set the default password for user postgres above. All the set parameters please refer to its document.

When you are using chart, you can avoid writing a lot of different yaml files to config the DB. (the chart will help you build it and it is ready to use immediately.

And you can get the all API for that deployment:

NAME: postgres-pioneer

LAST DEPLOYED: Fri Sep 30 14:26:57 2022

NAMESPACE: default

STATUS: deployed

REVISION: 1

TEST SUITE: None

NOTES:

CHART NAME: postgresql

CHART VERSION: 11.9.2

APP VERSION: 14.5.0

\*\* Please be patient while the chart is being deployed \*\*

PostgreSQL can be accessed via port 5432 on the following DNS names from within your cluster:

postgres-pioneer-postgresql.default.svc.cluster.local - Read/Write connection

To get the password for "postgres" run:

export POSTGRES\_PASSWORD=$(kubectl get secret --namespace default postgres-pioneer-postgresql -o jsonpath="{.data.postgres-password}" | base64 -d)

To connect to your database run the following command:

kubectl run postgres-pioneer-postgresql-client --rm --tty -i --restart='Never' --namespace default --image docker.io/bitnami/postgresql:14.5.0-debian-11-r14 --env="PGPASSWORD=$POSTGRES\_PASSWORD" \

--command -- psql --host postgres-pioneer-postgresql -U postgres -d postgres -p 5432

> NOTE: If you access the container using bash, make sure that you execute "/opt/bitnami/scripts/postgresql/entrypoint.sh /bin/bash" in order to avoid the error "psql: local user with ID 1001} does not exist"

To connect to your database from outside the cluster execute the following commands:

kubectl port-forward --namespace default svc/postgres-pioneer-postgresql 5432:5432 &

PGPASSWORD="$POSTGRES\_PASSWORD" psql --host 127.0.0.1 -U postgres -d postgres -p 5432

You can use the command above to double verify the default password is set as cfan for the default username postgres.

Then you should set a port-forward from your local to k8s cluster postgres DB instance:

kubectl port-forward --namespace default svc/postgres-pioneer-postgresql 5432:5432

Please see the service name is: postgres-pioneer-postgresql.

Then you can connect from pgadmin. Remember to enter password as cfan:

Graphical user interface, application

Description automatically generated

2-4 We want to run migrate to set up the DB. To make the connect. You can provide DB connection url as an argument of the npm command.

DATABASE\_URL=postgres://<username>:<password>@localhost:5432/<dbname> npm run migrate up

So we fill it as:

DATABASE\_URL=postgres://postgres:cfan@localhost:5432/pioneerDB npm run migrate up

The command should get run in the top of migration folder.

2-5: Remember in the k8s cluster, each pod has its name and you can use its name as the hostname and try to call it.

2-6: Again please note when directing the routes, ingress-nginx does not care the port number from your request.

3 React Router.

3-1 We are getting react router from modern react with redux course. It is using version 5. Note that the version 6 will totally break the code so make sure you use a specific version to install.

npm install react-router-dom@5

3-2 Using skaffold and it will be slow to see the changes. So I will not use k8s environment when developing. Use back the local environment.

We need to forward the db port of DB and set api agency for react calls to query service.

3-3