This YAML file creates a Kubernetes deployment and service for a web-based MongoDB client called mongo-express.

The deployment specifies that one replica of the mongo-express container should be created, and that it should use the mongo-express image from Docker Hub. The container listens on port 8081, and has environment variables set for the MongoDB root username and password, which are retrieved from the mongodb-secret created earlier. In addition, there is a configuration map referenced for the MongoDB server URL, which is used by mongo-express to connect to the database.

The service exposes the container to the internet using a load balancer, and maps port 8081 of the container to port 30000 of the host. This allows the mongo-express web interface to be accessed from a web browser on the local machine using the command "minikube service mongo-express-service".

This YAML file creates a Kubernetes deployment for a web-based MongoDB client called mongo-express, similar to the previous file I explained.

The deployment specifies that one replica of the mongo-express container should be created, and that it should use the mongo-express image from Docker Hub. The container listens on port 8081, and has environment variables set for the MongoDB root username and password, which are retrieved from the mongodb-secret created earlier. Additionally, there is a configuration map referenced for the MongoDB server URL, which is used by mongo-express to connect to the database.

This deployment can be used to run the mongo-express web interface in a Kubernetes cluster, allowing users to interact with the MongoDB database using a web browser.

This is a Kubernetes service manifest for the mongo-express application. It creates a service object named mongo-express-service with a selector that matches the app: mongo-express label.

The service type is set to LoadBalancer, which means that Kubernetes will create a load balancer for the service to distribute traffic to the underlying pods.

It exposes port 8081 on the service, which is mapped to port 8081 on the target pods. Additionally, it sets a nodePort of 30000, which means that the service will be accessible on the node's IP address at port 30000.

The last line is a comment indicating that running minikube service mongo-express-service will open the service in the default browser.