

Architect That!!



Objective:

Create application environments with Docker Compose.

Mission:

Create a Docker compose file for the React application:

- Diagram the architecture!!

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- Create a Docker Compose file for MongoDB:

```
version: "3.9"

services:

  mongodb:

    image: "mongo:latest"

    container_name: "database"

    restart: "unless-stopped"

    environment:

      MONGO_INITDB_ROOT_USERNAME: "root1"

      MONGO_INITDB_ROOT_PASSWORD: "password1"

  volumes:

    - sharedb:/data/db

  mongo-express:

    image: "mongo-express:latest"
```

```
container_name: "front-end"

environment:

  ME_CONFIG_MONGODB_ADMINUSERNAME: "root1"

  ME_CONFIG_MONGODB_ADMINPASSWORD: "password1"

  ME_CONFIG_MONGODB_SERVER: database

ports:

  - "8081:8081"

restart: "unless-stopped"

depends_on:

  - "mongodb"
```

- Observe the file and now create the project!!

Next:

- Tear down what you created above and now add a persistent volume for the database. (Find out where MongoDB keeps it's default database data files.)
- Once that's done, create the application again. Follow steps below to add data to the database:
 - Create a New database name (you can call it test):

Databases		
Database Name		+ Create Database
View	admin	Del
View	config	Del
View	cooker	Del
View	local	Del

Server Status

Turn on admin in config.js to view server stats!

- Create a new collection (you can call it recipe):

Viewing Database: cooker

Collections				
Collection Name				+ Create collection
View	Export	[JSON]	Import	delete_me Del
View	Export	[JSON]	Import	examples Del
View	Export	[JSON]	Import	recipes Del

Database Stats

- View the recipe collection and click on “new document”. Paste the data set below:

```
{
  title: 'Chicken Soft Tacos',
  calories_per_serving: 205,
  cook_time: 19,
  desc: 'Mexican soft tacos',
  directions: [
    'Put seasoning on chicken breasts',
    'Grill until done',
    'Chop chicken into pieces',
    'Put in tortillas'
  ],
  ingredients: [
    {
      name: 'chicken breast',
      quantity: {
        amount: 1,
        unit: 'lbs'
      }
    },
    {
      name: 'taco seasoning',
      quantity: {
        amount: 2,
        unit: 'oz'
      }
    },
    {
      name: 'small flour tortillas',
      quantity: {
        amount: 12,
        unit: 'oz'
      }
    }
  ],
  likes: [
    261,
    1,
    415
  ],
  likes_count: 3,
  prep_time: 10,
  rating: [
    4,
    4,
    4,
    4,
    2,
    5,
    3
  ]
}
```

```
],  
rating_avg: 3.71,  
servings: 5,  
tags: [  
  'mexican',  
  'quick',  
  'easy',  
  'chicken'  
],  
type: 'Dinner'  
}
```

- Now tear down the application and build it again. Do you see your old data? If yes, then move on to the next step.
 - Diagram this architecture.
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