

Docker Challenge

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Challenge 3

1. Created .env file

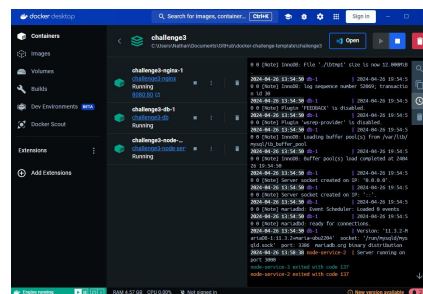
```
challenge3 > .env
1 DB_ROOT_PASSWORD=myrootpassword
2 DB_DATABASE=mydatabase
3 DB_USERNAME=myusername
4 DB_PASSWORD=mypassword
5 DB_HOST=db
6
7 MYSQL_ROOT_PASSWORD=myrootpassword
8 MYSQL_DATABASE=mydatabase
9 MYSQL_USER=myusername
10 MYSQL_PASSWORD=mypassword
11 MYSQL_HOST=db
12
```

2. Created docker-compose.yml file

```
challenge3 > docker-compose.yml
3 services:
9   db:
12     env_file:
14     expose:
15       - "3306"
16
17   node-service:
18     build:
19       context: .
20       dockerfile: docker/api/Dockerfile
21     env_file:
22       - .env
23     expose:
24       - "3000"
25     depends_on:
26       - db
27
```

3. Ran 'docker-compose up'

```
PS C:\Users\Nathan\Documents\GitHub\docker-challenge-template> docker-compose up
no configuration file provided: not found
PS C:\Users\Nathan\Documents\GitHub\docker-challenge-template> cd challenge3
PS C:\Users\Nathan\Documents\GitHub\docker-challenge-template\challenge3> docker-compose up
2024/04/26 13:54:33 http2: server: error reading preface from client //./pipe/docker_engine:
closed
[+] Building 0.0s (0/0) docker:default
2024/04/26 13:54:33 http2: server: error reading preface from client //./pipe/docker_engine:
closed
2024/04/26 13:54:33 http2: server: error reading preface from client //./pipe/docker_engine:
closed
[+] Building 1.7s (15/15)
=> [db internal] load build definition from Dockerfile
[+] Building 9.1s (25/25) FINISHED
=> [nginx internal] load build definition from Dockerfile
=> => transferring dockerfile: 132B
=> [db internal] load build definition from Dockerfile
=> => transferring dockerfile: 188B
=> [nginx internal] load metadata for docker.io/library/nginx:latest
=> [db internal] load metadata for docker.io/library/mariadb:latest
```



4. Verified all services running

```
localhost:8080/api/books
[
  {
    "id": 1,
    "title": "To Kill a Mockingbird",
    "author": "Harper Lee"
  },
  {
    "id": 2,
    "title": "1984",
    "author": "George Orwell"
  },
  {
    "id": 3,
    "title": "Pride and Prejudice",
    "author": "Jane Austen"
  },
  {
    "id": 4,
    "title": "The Great Gatsby",
    "author": "F. Scott Fitzgerald"
  }
]
```

```
localhost:8080/api/books/1
{
  "id": 1,
  "title": "To Kill a Mockingbird",
  "author": "Harper Lee"
}
```

5. Ran 'docker-compose ps'

```
PS C:\Users\Nathan\Documents\GitHub\docker-challenge-template\challenge3> docker-compose ps
NAME                STATUS              IMAGE                   COMMAND                  SERVICE
challenge3-db-1     Up 11 minutes      challenge3-db           "docker-entrypoint.s..." db
challenge3-nginx-1  Up 11 minutes      challenge3-nginx        "/docker-entrypoint..." nginx
challenge3-node-service-1  Up 11 minutes      challenge3-node-service "docker-entrypoint.s..." node-service
```

Challenge 4

1. Ran docker-compose up -d to bring up the services defined in the docker-compose.yml file.

```
PS C:\Users\Nathan\Documents\GitHub\docker-challenge-template\challenge3> docker-compose up -d
[+] Running 3/0
 ✓ Container challenge3-db-1           Running      0.0s
 ✓ Container challenge3-nginx-1        Running      0.0s
 ✓ Container challenge3-node-service-1 Running...    0.0s
```

2. Executed docker-compose up -d --scale node-service=3 to scale up the node-service to 3 instances, then executed docker-compose ps to verify the scaled services and recorded the output.

```
PS C:\Users\Nathan\Documents\GitHub\docker-challenge-template\challenge3> docker-compose up -d --scale node-service=3
[+] Running 5/5
 ✓ Container challenge3-db-1           Running      0.8s
 ✓ Container challenge3-nginx-1        Running      0.8s
 ✓ Container challenge3-node-service-1 Running...    0.8s
 ✓ Container challenge3-node-service-3 Starting...  0.5s
 ✓ Container challenge3-node-service-2 Starting...  0.8s

PS C:\Users\Nathan\Documents\GitHub\docker-challenge-template\challenge3> docker-compose ps
NAME                STATUS              IMAGE                   COMMAND                  SERVICE
challenge3-db-1     Up 4 minutes      challenge3-db           "docker-entrypoint.s..." db
challenge3-nginx-1  Up 3 minutes      challenge3-nginx        "/docker-entrypoint..." nginx
challenge3-node-service-1  Up 4 minutes      challenge3-node-service "docker-entrypoint.s..." node-service
challenge3-node-service-2  Up 33 seconds     challenge3-node-service "docker-entrypoint.s..." node-service
challenge3-node-service-3  Up 33 seconds     challenge3-node-service "docker-entrypoint.s..." node-service
```