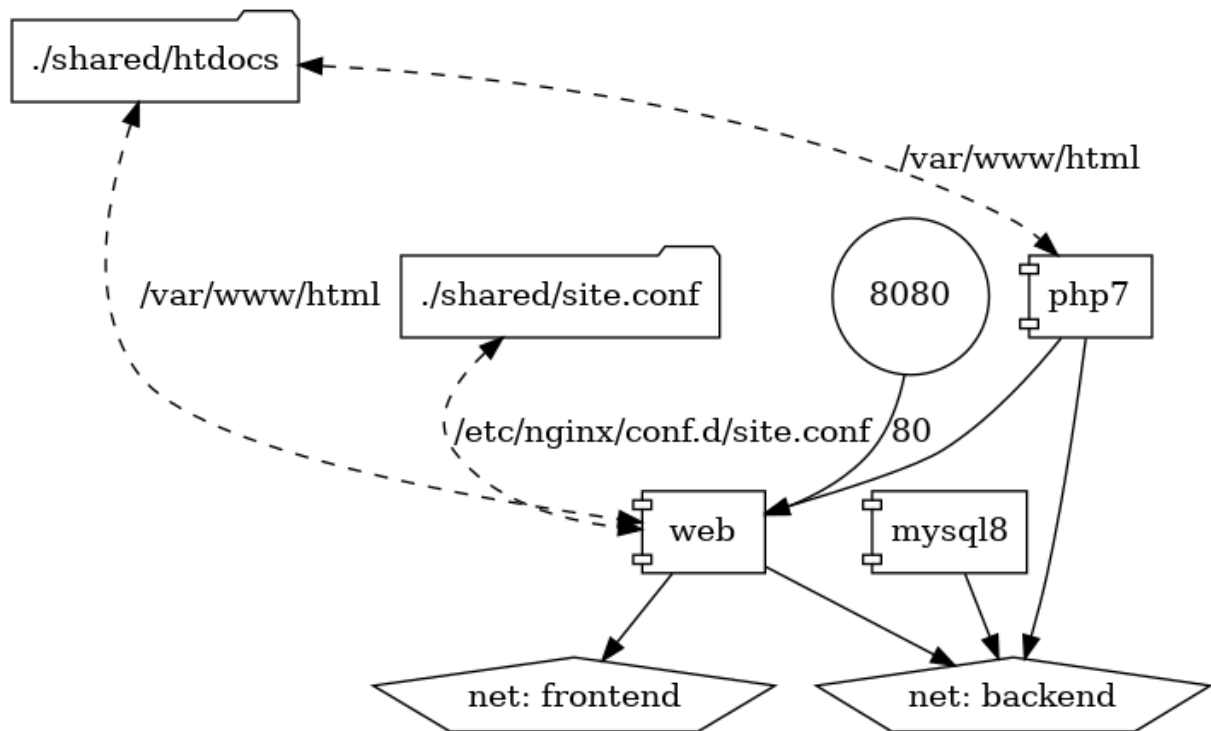


Sprawozdanie PwChO: docker-compose

Ernest Grzeszczak 7.3/5 88694



Uruchamianie

Budowanie projektu

```
$ sudo docker-compose build  
$ sudo docker-compose up
```

Otworz

```
$ curl 127.0.0.1:6666
```

albo

```
$ firefox 127.0.0.1:6666
```

Drzewo projektu

```
lenovo@melbourne:~/Workspace/PWCH07/compose$ tree
```

```
.
├── docker-compose.yaml # Plik yaml
├── db # Folder dla MySQL
│   └── Dockerfile
├── php # Folder dla PHP
│   └── Dockerfile
├── shared # Folder z plikami
│   ├── htdocs # Wiadomo
│   │   └── index.php # Skrypt .php
│   └── site.conf
└── web # Folder dla Nginx
    └── Dockerfile
```

Podać zawartość plików Dockerfile dla każdej usługi cząstkowej

- `/web/Dockerfile` (Dockerfile dla serwera nginx)

```
FROM nginx:alpine
RUN apk update
RUN apk upgrade
```

- `/php/Dockerfile` (Dockerfile dla serwera PHP)

```
FROM php:7-fpm-alpine
RUN apk update
RUN apk upgrade
RUN docker-php-ext-install mysqli && docker-php-ext-enable mysqli
```

- `/db/Dockerfile` (Dockerfile dla serwera MySQL)

```
FROM mysql:5.7
RUN apt-get update -y
```

Podać zawartość innych, niezbędnych plików

W folderze shared znajduje się plik `/htdocs/index.php` który będziemy umieszczać w plikach nginx

```
...
<div class="page-container">
  <div class="page">
```

```

<h1>docker-compose</h1>
<p>Ernest Grzeszczak 7.3/5 88694</p>
<p>mysql-client:
    <?php
        if($link = mysqli_connect('mysql5', 'admin', 'admin')){
            echo "<span style='color: green;'>".$link->client_info."
</span>";
        } else {
            echo "ERROR";
        }
    ?>
</p>
<p>
    phpversion:
    <?php
        // PHP Check
        echo "<span style='color: green;'>".phpversion()."</span>";
    ?>
</p>
</div>
</div>
...

```

Natomiast w pliku `site.conf` bedziemy mieli konfiguracje dla naszego serwera nginx, aby skonfigurowac obsluge plikow `.php`

```

server {
    listen 80;
    index index.php;
    server_name 127.0.0.1;
    root /var/www/html/;

    location ~ /\.php$ {
        try_files $uri =404;
        fastcgi_split_path_info ^(.+\.php)(/.+)$;
        fastcgi_pass php7:9000;
        fastcgi_index index.php;
        include fastcgi_params;
        fastcgi_param SCRIPT_FILENAME $document_root$fastcgi_script_name;
        fastcgi_param PATH_INFO $fastcgi_path_info;
    }
}

```

Podac zawartosc pliku `docker-compose.yml`

```

version: "3.7"

# Definicja sieci
networks:

```

```
frontend:
  name: frontend
  driver: bridge
backend:
  name: backend
  driver: bridge
```

services:

Serwer nginx

```
web:
  build:
    context: ./web
    dockerfile: Dockerfile
  image: web:6z1
  container_name: nginx
  ports:
    - "6666:80"
  volumes:
    - ./shared/htdocs:/var/www/html
    - ./shared/site.conf:/etc/nginx/conf.d/site.conf
  links:
    - php7
  networks:
    - frontend
    - backend
```

Serwer PHP

```
php7:
  build:
    context: ./php
    dockerfile: Dockerfile
  image: php:6z1
  container_name: php7
  volumes:
    - ./shared/htdocs:/var/www/html
  networks:
    - backend
```

Serwer MySQL

```
mysql5:
  build:
    context: ./db
    dockerfile: Dockerfile
  image: mysql:6z1
  container_name: mysql5
  networks:
    - backend
  environment:
    MYSQL_DATABASE: "database"
    MYSQL_ROOT_PASSWORD: "admin"
    MYSQL_PASSWORD: "admin"
    MYSQL_USER: "admin"
```

Test

```
lenovo@melbourne:~/Workspace/PWCH07/compose$ sudo docker-compose up
[sudo] password for lenovo:
lenovo@melbourne: ~/Workspace/PWCH07/compos
WARNING: Found orphan containers (mysql8) for this project. If you removed or renamed this service in your compose file, you can run this command with the --remove-orphans flag to clean it up.
Starting php7 ... done
Starting mysql5 ... done
Recreating nginx ... done
Attaching to php7, mysql5, nginx
mysql5 | 2020-11-29 21:16:29+00:00 [Note] [Entrypoint]: Entrypoint script for MySQL Server 5.7.32-1debian10 started
nginx | /docker-entrypoint.sh: /docker-entrypoint.d/ is not empty, will attempt to perform configuration
nginx | /docker-entrypoint.sh: Looking for shell scripts in /docker-entrypoint.d/
mysql5 | 2020-11-29 21:16:29+00:00 [Note] [Entrypoint]: Switching to dedicated user 'mysql'
nginx | /docker-entrypoint.sh: Launching /docker-entrypoint.d/10-listen-on-ipv6-by-default.sh
php7 | [29-Nov-2020 21:16:29] NOTICE: fpm is running, pid 1
mysql5 | 2020-11-29 21:16:29+00:00 [Note] [Entrypoint]: Entrypoint script for MySQL Server 5.7.32-1debian10 started
nginx | 10-listen-on-ipv6-by-default.sh: Getting the checksum of /etc/nginx/conf.d/default.conf
php7 | [29-Nov-2020 21:16:29] NOTICE: ready to handle connections
mysql5 | 2020-11-29T21:16:29.743448Z 0 [Warning] TIMESTAMP with implicit DEFAULT value is deprecated. Please use --
explicit_defaults_for_timestamp server option (see documentation for more details).
mysql5 | 2020-11-29T21:16:29.744837Z 0 [Note] mysqld (mysqld 5.7.32) starting as process 1 ...
mysql5 | 2020-11-29T21:16:29.748405Z 0 [Note] InnoDB: PUNCH HOLE support available
mysql5 | 2020-11-29T21:16:29.748432Z 0 [Note] InnoDB: Mutexes and rw_locks use GCC atomic builtins
mysql5 | 2020-11-29T21:16:29.748436Z 0 [Note] InnoDB: Uses event mutexes
mysql5 | 2020-11-29T21:16:29.748439Z 0 [Note] InnoDB: GCC builtin __atomic_thread_fence() is used for memory barrier
mysql5 | 2020-11-29T21:16:29.748442Z 0 [Note] InnoDB: Compressed tables use zlib 1.2.11
mysql5 | 2020-11-29T21:16:29.748445Z 0 [Note] InnoDB: Using Linux native AIO
mysql5 | 2020-11-29T21:16:29.748728Z 0 [Note] InnoDB: Number of pools: 1
mysql5 | 2020-11-29T21:16:29.748872Z 0 [Note] InnoDB: Using CPU crc32 instructions
mysql5 | 2020-11-29T21:16:29.750784Z 0 [Note] InnoDB: Initializing buffer pool, total size = 128M, instances = 1, c
unk size = 128M
mysql5 | 2020-11-29T21:16:29.761730Z 0 [Note] InnoDB: Completed initialization of buffer pool
mysql5 | 2020-11-29T21:16:29.764128Z 0 [Note] InnoDB: If the mysqld execution user is authorized, page cleaner thre
d priority can be changed. See the man page of setpriority().
mysql5 | 2020-11-29T21:16:29.775814Z 0 [Note] InnoDB: Highest supported file format is Barracuda.
mysql5 | 2020-11-29T21:16:29.813949Z 0 [Note] InnoDB: Creating shared tablespace for temporary tables
mysql5 | 2020-11-29T21:16:29.814080Z 0 [Note] InnoDB: Setting file './ibtmp1' size to 12 MB. Physically writing the
file full; Please wait ...
mysql5 | 2020-11-29T21:16:29.874557Z 0 [Note] InnoDB: File './ibtmp1' size is now 12 MB.
mysql5 | 2020-11-29T21:16:29.876703Z 0 [Note] InnoDB: 96 redo rollback segment(s) found. 96 redo rollback segment(s)
are active.
mysql5 | 2020-11-29T21:16:29.876747Z 0 [Note] InnoDB: 32 non-redo rollback segment(s) are active.
mysql5 | 2020-11-29T21:16:29.877535Z 0 [Note] InnoDB: Waiting for purge to start
mysql5 | 2020-11-29T21:16:29.927725Z 0 [Note] InnoDB: 5.7.32 started; log sequence number 12618574
mysql5 | 2020-11-29T21:16:29.928152Z 0 [Note] Plugin 'FEDERATED' is disabled.
mysql5 | 2020-11-29T21:16:29.930908Z 0 [Note] InnoDB: Loading buffer pool(s) from /var/lib/mysql/ib_buffer_pool
mysql5 | 2020-11-29T21:16:29.933080Z 0 [Note] InnoDB: Buffer pool(s) load completed at 201129 21:16:29
mysql5 | 2020-11-29T21:16:29.935801Z 0 [Note] Found ca.pem, server-cert.pem and server-key.pem in data directory. T
rying to enable SSL support using them.
mysql5 | 2020-11-29T21:16:29.935815Z 0 [Note] Skipping generation of SSL certificates as certificate files are pres
ent in data directory.
mysql5 | 2020-11-29T21:16:29.936505Z 0 [Warning] CA certificate ca.pem is self signed.
mysql5 | 2020-11-29T21:16:29.936539Z 0 [Note] Skipping generation of RSA key pair as key files are present in data
directory.
mysql5 | 2020-11-29T21:16:29.937000Z 0 [Note] Server hostname (bind-address): '*'; port: 3306
mysql5 | 2020-11-29T21:16:29.937127Z 0 [Note] IPv6 is available.
mysql5 | 2020-11-29T21:16:29.937149Z 0 [Note] - '::' resolves to '::';
mysql5 | 2020-11-29T21:16:29.937179Z 0 [Note] Server socket created on IP: '::'.
```

\$ sudo docker-compose up

```
lenovo@melbourne:~$ curl 127.0.0.1:6666
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>docker-compose</title>
  <style>
    @import url('https://fonts.googleapis.com/css2?
family=Sarabun:wght@100&display=swap');
  .page-container{
```

```
        color: #222222;  
        min-height: 50vh;  
        display: flex;  
        justify-content: center;  
    }  
    .page{  
        font-family: 'Sarabun';  
    }  
    .page h1{  
        font-size: 160px;  
        margin: 0;  
    }
```

curl 127.0.0.1:6666

docker-compose

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mysql-client: [mysqlnd 7.4.12](#)

phpversion: [7.4.12](#)

firefox 127.0.0.1:6666