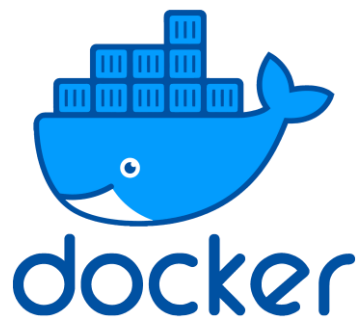




Multi-Tier Application



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What is Docker --Link

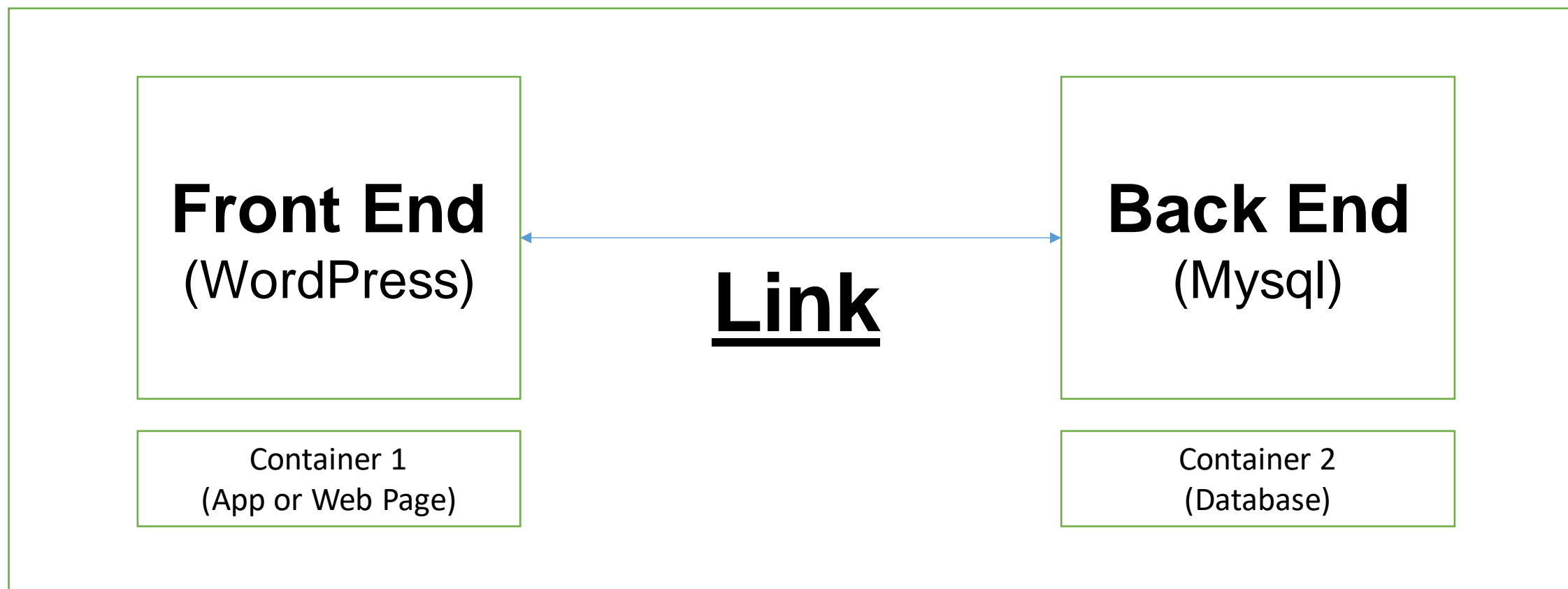
- Docker container linking **allows multiple containers to be linked to each other.**
- It **allows the recipient container to get connection information** relating to the source container.
- You should use Docker container linking when you are using default bridge networks and when you want to share environmental variables.



Usecases Of Docker --Link

- **It allows you to link multiple containers together and send connection information from one to another.**
- **When containers are linked, information about a source container can be sent to a recipient container.**

Architecture Diagram





What is Wordpress & Mysql

- **Wordpress:** It is a free and open-source content management system written in PHP. Features include a plugin architecture and a template system, where we can create own website or blogs easily.
- **Mysql:** It is an open-source relational database management system. It can be used to store anything from a single record of information to an entire inventory of available products for an online store.

Let's do some Practical Stuff Now...



Pull Mysql Image

- Command:- docker pull mysql:5.6

```
[node1] (local) root@192.168.0.18 ~  
$ docker pull mysql:5.6  
5.6: Pulling from library/mysql  
35b2232c987e: Pull complete  
fc55c00e48f2: Pull complete  
0030405130e3: Pull complete  
elfef7f6a8d1: Pull complete  
1c76272398bb: Pull complete  
f57e698171b6: Extracting 7.995MB/10.23MB  
f57e698171b6: Pull complete  
f5b825b269c0: Pull complete  
dcb0af686073: Pull complete  
27bbfeb886d1: Pull complete  
6f70cc868145: Pull complete  
1f6637f4600d: Pull complete  
Digest: sha256:20575ecebe6216036d25dab5903808211f1e9ba63dc7825ac20cb975e34cfcae  
Status: Downloaded newer image for mysql:5.6  
docker.io/library/mysql:5.6  
[node1] (local) root@192.168.0.18 ~
```



Run Mysql container

- Command:- `docker run -d --name=mysql -e MYSQL_ROOT_PASSWORD=redhat -e MYSQL_USER=user1 -e MYSQL_PASSWORD=redhat -e MYSQL_DATABASE=mydata mysql:5.6`

```
[node1] (local) root@192.168.0.18 ~  
$ docker run -d --name=mysql -e MYSQL_ROOT_PASSWORD=redhat -e MYSQL_USER=user1 -e MYSQL_PASSWORD=redhat -e MYSQL_DATABASE=mydata mysql:5.6  
2be45e4425d858545bd1cb2f9c9316c4d2fca1547417af0ef27457efd8cd00ca  
[node1] (local) root@192.168.0.18 ~  
$
```


Pull Wordpress app image

- Command:- docker pull wordpress

```
[node1] (local) root@192.168.0.18 ~  
$ docker pull wordpress  
Using default tag: latest  
latest: Pulling from library/wordpress  
1fe172e4850f: Pull complete  
012a3732d045: Pull complete  
43092314d50d: Pull complete  
4f615e42d863: Pull complete  
cd39010a4efc: Pull complete  
d983c9ce24de: Pull complete  
ecbdd59ae430: Pull complete  
9d02b88c8618: Pull complete  
50a246031d43: Pull complete  
a6c0267e6c34: Pull complete  
787ca6348cef: Pull complete  
da8ad43595e2: Pull complete  
e191f9e80e29: Pull complete  
fed8d3fd90f9: Pull complete  
9ffdaa9000ed: Pull complete  
5774aeca6412: Pull complete  
6978431bb9e2: Pull complete  
fb4d3fb05351: Pull complete  
23d3af42839e: Pull complete  
a5b33728e4a6: Pull complete  
766e2b674cd0: Pull complete  
Digest: sha256:abc1a527c810542eea7cd0be5c5e8a1d087f16c363a46178ea615e8083700077  
Status: Downloaded newer image for wordpress:latest  
docker.io/library/wordpress:latest  
[node1] (local) root@192.168.0.18 ~  
$
```



Link Mysql and Wordpress Containers

- Command:- docker run -d -p 18080:80 --name=wordpress --link=mysql wordpress

```
[node1] (local) root@192.168.0.18 ~  
$ docker run -d -p 18080:80 --name=wordpress --link=mysql wordpress  
246b25e7f42f71cbc30dce1c2ac7d8963e3cd3483c0af24fb5b40a182f9e6e70  
[node1] (local) root@192.168.0.18 ~  
$
```

- Command:- docker ps

```
[node1] (local) root@192.168.0.18 ~  
$ docker ps  
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS                    NAMES  
246b25e7f42f   wordpress  "docker-entrypoint.s..." 13 seconds ago Up 12 seconds 0.0.0.0:18080->80/tcp    wordpress  
2be45e4425d8   mysql:5.6  "docker-entrypoint.s..." 4 minutes ago  Up 4 minutes  3306/tcp                 mysql  
[node1] (local) root@192.168.0.18 ~  
$
```



Deploy Wordpress



Success!

WordPress has been installed. Thank you, and enjoy!

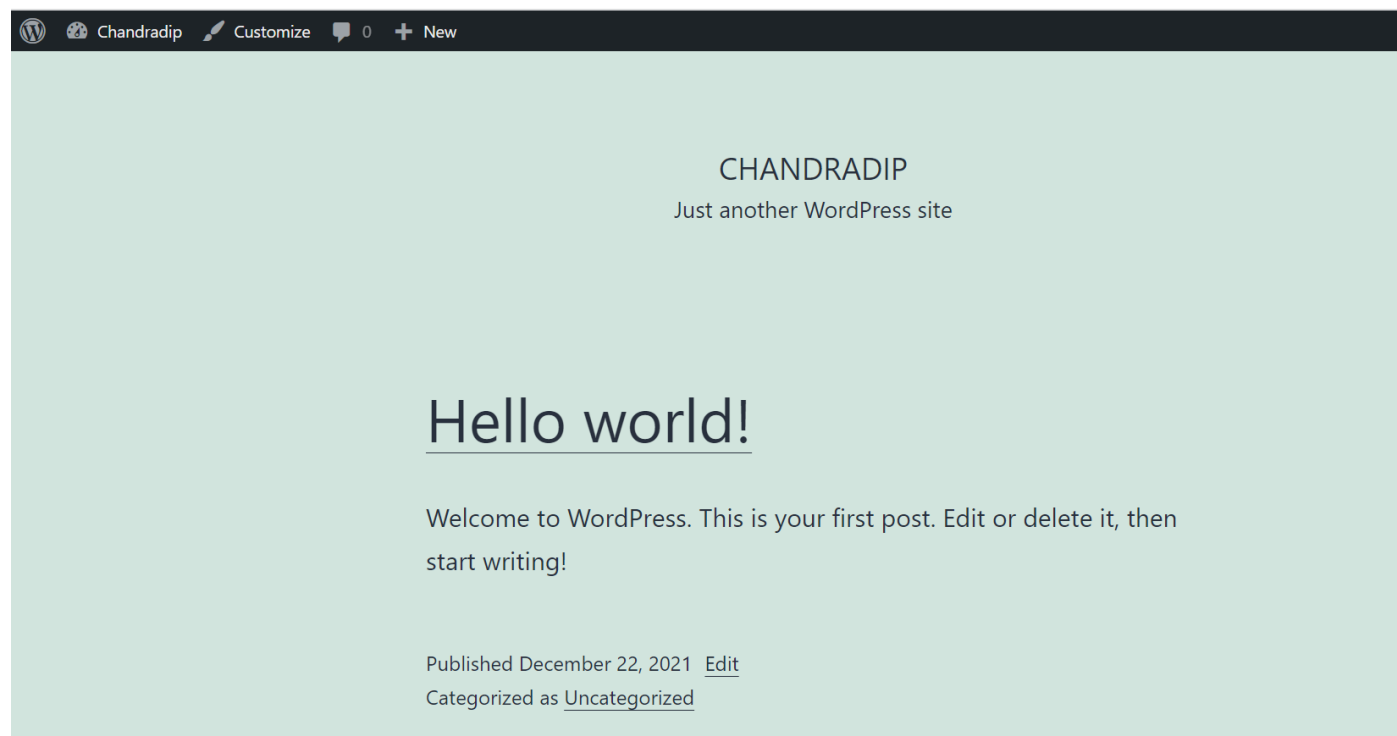
Username adm

Password *Your chosen password.*

Log In



Wordpress is working.





Inside Mysql

- Command:- show databases;

```
root@2be45e4425d8:/# mysql -uroot -p
Enter password:
ERROR 1045 (28000): Access denied for user 'root'@'localhost' (using password: YES)
root@2be45e4425d8:/# mysql -uroot -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 3
Server version: 5.6.51 MySQL Community Server (GPL)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show databases;
+-----+
| Database                |
+-----+
| information_schema       |
| mydata                   |
| mysql                    |
| performance_schema       |
+-----+
4 rows in set (0.00 sec)
```