1. Deploy hello world application in laravel PHP.

how to deploy a "Hello World" application in Laravel PHP:

- Install Laravel on your local machine using Composer. You can use the following command in your terminal:

- Navigate to the project directory using the cd command:

- Start the Laravel development server using the following command:

- Open your browser and go to http://localhost:8000. You should see the default Laravel welcome page.

- Create a new route that will display "Hello World" in your application. Open the routes/web.php file and add the following code:

- Save the changes and refresh the browser. You should now see "Hello World" displayed on the page when you visit http://localhost:8000/hello-world.

```
himanshu@himanshu-Inspiron-15-3511:~/example-app$
himanshu@himanshu-Inspiron-15-3511:~/example-app$ ls
app          bootstrap        composer.lock    database        phpunit.xml   README.md    routes       storage    vendor
artisan      composer.json    config           package.json    public        resources    server.php   tests      webpack.mix.js
himanshu@himanshu-Inspiron-15-3511:~/example-app$
himanshu@himanshu-Inspiron-15-3511:~/example-app$
himanshu@himanshu-Inspiron-15-3511:~/example-app$ php artisan serve
Starting Laravel development server: http://127.0.0.1:8000
[Mon Apr  3 18:04:52 2023] PHP 7.4.3-4ubuntu2.18 Development Server (http://127.0.0.1:8000) started
^C
himanshu@himanshu-Inspiron-15-3511:~/example-app$ php artisan serve
Starting Laravel development server: http://127.0.0.1:8000
[Mon Apr  3 18:05:28 2023] PHP 7.4.3-4ubuntu2.18 Development Server (http://127.0.0.1:8000) started


^C
himanshu@himanshu-Inspiron-15-3511:~/example-app$ cc

Command 'cc' not found, but can be installed with:

sudo apt install gcc             # version 4:9.3.0-1ubuntu2, or
sudo apt install clang           # version 1:10.0-50~exp1
sudo apt install pentium-builder # version 0.21ubuntu1
sudo apt install tcc             # version 0.9.27-8

himanshu@himanshu-Inspiron-15-3511:~/example-app$
himanshu@himanshu-Inspiron-15-3511:~/example-app$
himanshu@himanshu-Inspiron-15-3511:~/example-app$ claer

Command 'claer' not found, did you mean:
```

```
Command  claer  not found, did you mean:

  command 'clear' from deb ncurses-bin (6.2-0ubuntu2)

Try: sudo apt install <deb name>

himanshu@himanshu-Inspiron-15-3511:~/example-app$
himanshu@himanshu-Inspiron-15-3511:~/example-app$
himanshu@himanshu-Inspiron-15-3511:~/example-app$ php artisan serve
Starting Laravel development server: http://127.0.0.1:8000
[Mon Apr  3 18:06:30 2023] PHP 7.4.3-4ubuntu2.18 Development Server (http://127.0.0.1:8000) started
[Mon Apr  3 18:06:45 2023] 127.0.0.1:59664 Accepted
[Mon Apr  3 18:06:45 2023] 127.0.0.1:59664 Closing
[Mon Apr  3 18:06:45 2023] 127.0.0.1:59680 Accepted
[Mon Apr  3 18:06:45 2023] 127.0.0.1:59680 [200]: GET /favicon.ico
[Mon Apr  3 18:06:45 2023] 127.0.0.1:59680 Closing
^C
himanshu@himanshu-Inspiron-15-3511:~/example-app$
himanshu@himanshu-Inspiron-15-3511:~/example-app$
himanshu@himanshu-Inspiron-15-3511:~/example-app$
himanshu@himanshu-Inspiron-15-3511:~/example-app$ cd ~
himanshu@himanshu-Inspiron-15-3511:~$
himanshu@himanshu-Inspiron-15-3511:~$
himanshu@himanshu-Inspiron-15-3511:~$ ls
aks        Documents   example-app  himanshu   Music      Public     Templates
Desktop    Downloads   hello-world  jaat       Pictures   snap       Videos
himanshu@himanshu-Inspiron-15-3511:~$ cd aks
himanshu@himanshu-Inspiron-15-3511:~/aks$ ls
docker-laravel-mysql-nginx-starter
himanshu@himanshu-Inspiron-15-3511:~/aks$
himanshu@himanshu-Inspiron-15-3511:~/aks$
himanshu@himanshu-Inspiron-15-3511:~/aks$ cd docker-laravel-mysql-nginx-starter/
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$ ls
```
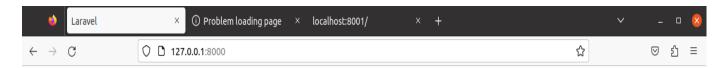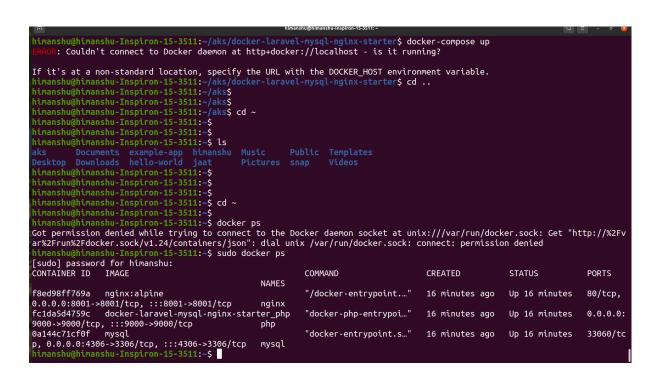
KEEN & ABLE

HELLO WORLD

2. The setup should contain two containers - one for laravel (With nginx) and another for postgreSQL.

Here are the basic steps to create two separate containers for Laravel and PostgreSQL.

- First, you need to create a Dockerfile for your Laravel app that Install Nginx and PHP. Here's an example Dockerfile:

- This Dockerfile Install PHP 7.4, Nginx, Git, Zip, Unzip, and the PostgreSQL driver for PHP. It also copies the Nginx config file and Laravel files into the container.

- Next, create a docker-compose.yml file that defines the two containers:

- This docker-compose.yml file defines two services: laravel and db. The laravel service builds the Dockerfile we created earlier and mounts the current directory as a volume so changes can be made without rebuilding the container. It also maps port 80 of the container to port 80 of the host machine. Finally, it depends on the db service, which is just the official PostgreSQL Docker image with environment variables set to create a database.

- Finally, run docker-compose up to start the containers. You should see both containers starting up and logs being output to the console. Once both containers are up and running, you should be able to access your Laravel app at http://localhost.

```
himanshu@himanshu-Inspiron-15-3511:~/example-app$
himanshu@himanshu-Inspiron-15-3511:~/example-app$
himanshu@himanshu-Inspiron-15-3511:~/example-app$
himanshu@himanshu-Inspiron-15-3511:~/example-app$ cd ~
himanshu@himanshu-Inspiron-15-3511:~$
himanshu@himanshu-Inspiron-15-3511:~$
himanshu@himanshu-Inspiron-15-3511:~$ ls
aks          Documents  example-app  himanshu  Music      Public     Templates
Desktop      Downloads  hello-world  jaat      Pictures   snap       Videos
himanshu@himanshu-Inspiron-15-3511:~$ cd aks
himanshu@himanshu-Inspiron-15-3511:~/aks$ ls
docker-laravel-mysql-nginx-starter
himanshu@himanshu-Inspiron-15-3511:~/aks$
himanshu@himanshu-Inspiron-15-3511:~/aks$
himanshu@himanshu-Inspiron-15-3511:~/aks$ cd docker-laravel-mysql-nginx-starter/
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$ ls
docker-compose.yml  Dockerfile  Makefile  mysql  nginx  README.md  src
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$ docker-compose up
ERROR: Couldn't connect to Docker daemon at http+docker://localhost - is it running?

If it's at a non-standard location, specify the URL with the DOCKER_HOST environment variable.
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$ docker-compose up
ERROR: Couldn't connect to Docker daemon at http+docker://localhost - is it running?

If it's at a non-standard location, specify the URL with the DOCKER_HOST environment variable.
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$ cd ..
himanshu@himanshu-Inspiron-15-3511:~/aks$
```



```
himanshu@himanshu-Inspiron-15-3511: ~
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$ docker-compose up
ERROR: Couldn't connect to Docker daemon at http+docker://localhost - is it running?

If it's at a non-standard location, specify the URL with the DOCKER_HOST environment variable.
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$ cd ..
himanshu@himanshu-Inspiron-15-3511:~/aks$
himanshu@himanshu-Inspiron-15-3511:~/aks$
himanshu@himanshu-Inspiron-15-3511:~/aks$ cd ~
himanshu@himanshu-Inspiron-15-3511:~$
himanshu@himanshu-Inspiron-15-3511:~$
himanshu@himanshu-Inspiron-15-3511:~$ ls
aks          Documents  example-app  himanshu  Music      Public     Templates
Desktop      Downloads  hello-world  jaat      Pictures   snap       Videos
himanshu@himanshu-Inspiron-15-3511:~$
himanshu@himanshu-Inspiron-15-3511:~$
himanshu@himanshu-Inspiron-15-3511:~$ cd ~
himanshu@himanshu-Inspiron-15-3511:~$
himanshu@himanshu-Inspiron-15-3511:~$ docker ps
Got permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Get "http://%2Fv
ar%2Frun%2Fdocker.sock/v1.24/containers/json": dial unix /var/run/docker.sock: connect: permission denied
himanshu@himanshu-Inspiron-15-3511:~$ sudo docker ps
[sudo] password for himanshu:
CONTAINER ID   IMAGE                                           COMMAND                  CREATED          STATUS          PORTS
                                                       NAMES
f8ed98ff769a   nginx:alpine                                    "/docker-entrypoint.…"   16 minutes ago   Up 16 minutes   80/tcp,
0.0.0.0:8001->8001/tcp, :::8001->8001/tcp            nginx
fc1da5d4759c   docker-laravel-mysql-nginx-starter_php          "docker-php-entrypoi…"   16 minutes ago   Up 16 minutes   0.0.0.0:
9000->9000/tcp, :::9000->9000/tcp                   php
0a144c71cf0f   mysql                                           "docker-entrypoint.s…"   16 minutes ago   Up 16 minutes   33060/tc
p, 0.0.0.0:4306->3306/tcp, :::4306->3306/tcp        mysql
himanshu@himanshu-Inspiron-15-3511:~$
```


Warning: require(/var/www/app/public/../vendor/autoload.php): Failed to open stream: No such file or directory in **/var/www/app/public/index.php** on line **34**

Fatal error: Uncaught Error: Failed opening required '/var/www/app/public/../vendor/autoload.php' (include_path='.:/usr/local/lib/php') in /var/www /app/public/index.php:34 Stack trace: #0 {main} thrown in **/var/www/app/public/index.php** on line **34**

```
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$ nano docker-compose.yml
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$ sudo docker-compose up -
d
Creating network "docker-laravel-mysql-nginx-starter_default" with the default driver
WARNING: Found orphan containers (php, nginx, mysql) 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
.
Pulling db (postgres:)...
latest: Pulling from library/postgres
f1f26f570256: Pull complete
1c04f8741265: Pull complete
dffc353b86eb: Pull complete
18c4a9e6c414: Pull complete
81f47e7b3852: Pull complete
5e26c947960d: Pull complete
a2c3dc85e8c3: Pull complete
17df73636f01: Pull complete
713535cdf17c: Pull complete
52278a39eea2: Pull complete
4ded87da67f6: Pull complete
05fae4678312: Pull complete
56b4f4aeea2d: Pull complete
Digest: sha256:5a90725b3751c2c7ac311c9384dfc1a8f6e41823e341fb1dceed96a11677303a
Status: Downloaded newer image for postgres:latest
Building laravel
Step 1/7 : FROM php:8.2-fpm-alpine
 ---> c31e8c80ffc5
```

```
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$ sudo docker ps
CONTAINER ID   IMAGE                              COMMAND                  CREATED          STA
TUS            PORTS                                           NAMES
dc05286dee57   postgres                           "docker-entrypoint.s…"   51 seconds ago   Up
50 seconds     0.0.0.0:5432->5432/tcp, :::5432->5432/tcp       docker-laravel-mysql-nginx-sta
rter_db_1
f8ed98ff769a   nginx:alpine                       "/docker-entrypoint.…"   23 hours ago     Up
About an hour  80/tcp, 0.0.0.0:8001->8001/tcp, :::8001->8001/tcp        nginx
fc1da5d4759c   docker-laravel-mysql-nginx-starter_php   "docker-php-entrypoi…"   23 hours ago     Up
About an hour  0.0.0.0:9000->9000/tcp, :::9000->9000/tcp       php
0a144c71cf0f   mysql                              "docker-entrypoint.s…"   23 hours ago     Up
About an hour  33060/tcp, 0.0.0.0:4306->3306/tcp, :::4306->3306/tcp   mysql
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$
```

```
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$ sudo docker ps -a
CONTAINER ID   IMAGE                                   COMMAND                  CREATED        STATUS
    PORTS                                          NAMES
f5b2055563bf   docker-laravel-mysql-nginx-starter_laravel   "docker-php-entrypoi…"   18 hours ago   Created
                                               docker-laravel-mysql-nginx-starter_laravel_1
dc05286dee57   postgres                                "docker-entrypoint.s…"   18 hours ago   Exited (0) 17 hours ag
o                                              docker-laravel-mysql-nginx-starter_db_1
f8ed98ff769a   nginx:alpine                            "/docker-entrypoint.…"   41 hours ago   Up 55 minutes
    80/tcp, 0.0.0.0:8001->8001/tcp, :::8001->8001/tcp   nginx
fc1da5d4759c   docker-laravel-mysql-nginx-starter_php   "docker-php-entrypoi…"   41 hours ago   Up 55 minutes
    0.0.0.0:9000->9000/tcp, :::9000->9000/tcp       php
0a144c71cf0f   mysql                                   "docker-entrypoint.s…"   41 hours ago   Up 55 minutes
    33060/tcp, 0.0.0.0:4306->3306/tcp, :::4306->3306/tcp   mysql
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$
```

```
 urwzrrumzruduckersvockvviz4jconcumers7json r wcdc umx 7varrrum7duckersvock: vunnecc: perImIssIun uenIeu
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$ sudo docker ps
[sudo] password for himanshu:
CONTAINER ID   IMAGE                                        COMMAND                CREATED          STATUS            PORT
S                                                   NAMES
ec02a03757ef   docker-laravel-mysql-nginx-starter_laravel   "docker-php-entrypoi…"   28 seconds ago   Up 27 seconds     9000
/tcp, 0.0.0.0:49153->8080/tcp, :::49153->8080/tcp    docker-laravel-mysql-nginx-starter_laravel_1
dc05286dee57   postgres                                     "docker-entrypoint.s…"   19 hours ago     Up 28 seconds     0.0.
0.0:5432->5432/tcp, :::5432->5432/tcp                docker-laravel-mysql-nginx-starter_db_1
f8ed98ff769a   nginx:alpine                                 "/docker-entrypoint.…"   41 hours ago     Up 2 hours        80/t
cp, 0.0.0.0:8001->8001/tcp, :::8001->8001/tcp        nginx
fc1da5d4759c   docker-laravel-mysql-nginx-starter_php        "docker-php-entrypoi…"   41 hours ago     Up 2 hours        0.0.
0.0:9000->9000/tcp, :::9000->9000/tcp                php
0a144c71cf0f   mysql                                        "docker-entrypoint.s…"   41 hours ago     Up 2 hours        3306
0/tcp, 0.0.0.0:4306->3306/tcp, :::4306->3306/tcp     mysql
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$
```

```
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$ nano docker-compose.yml
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$ docker compose up
docker: 'compose' is not a docker command.
See 'docker --help'
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$ sudo docker compose up
docker: 'compose' is not a docker command.
See 'docker --help'
himanshu@himanshu-Inspiron-15-3511:~/aks/docker-laravel-mysql-nginx-starter$ sudo docker-compose up
WARNING: Found orphan containers (nginx, mysql, php) for this project. If you removed or renamed this service in your comp
ose file, you can run this command with the --remove-orphans flag to clean it up.
Starting docker-laravel-mysql-nginx-starter_db_1 ... done
Recreating docker-laravel-mysql-nginx-starter_laravel_1 ... done
Attaching to docker-laravel-mysql-nginx-starter_db_1, docker-laravel-mysql-nginx-starter_laravel_1
db_1       |
db_1       | PostgreSQL Database directory appears to contain a database; Skipping initialization
db_1       |
db_1       | 2023-04-05 05:47:35.594 UTC [1] LOG:  starting PostgreSQL 15.2 (Debian 15.2-1.pgdg110+1) on x86_64-pc-linux-g
nu, compiled by gcc (Debian 10.2.1-6) 10.2.1 20210110, 64-bit
db_1       | 2023-04-05 05:47:35.594 UTC [1] LOG:  listening on IPv4 address "0.0.0.0", port 5432
db_1       | 2023-04-05 05:47:35.594 UTC [1] LOG:  listening on IPv6 address "::", port 5432
db_1       | 2023-04-05 05:47:35.595 UTC [1] LOG:  listening on Unix socket "/var/run/postgresql/.s.PGSQL.5432"
db_1       | 2023-04-05 05:47:35.598 UTC [30] LOG:  database system was shut down at 2023-04-04 12:15:19 UTC
db_1       | 2023-04-05 05:47:35.604 UTC [1] LOG:  database system is ready to accept connections
laravel_1  | [05-Apr-2023 05:47:35] NOTICE: fpm is running, pid 1
laravel_1  | [05-Apr-2023 05:47:35] NOTICE: ready to handle connections
```