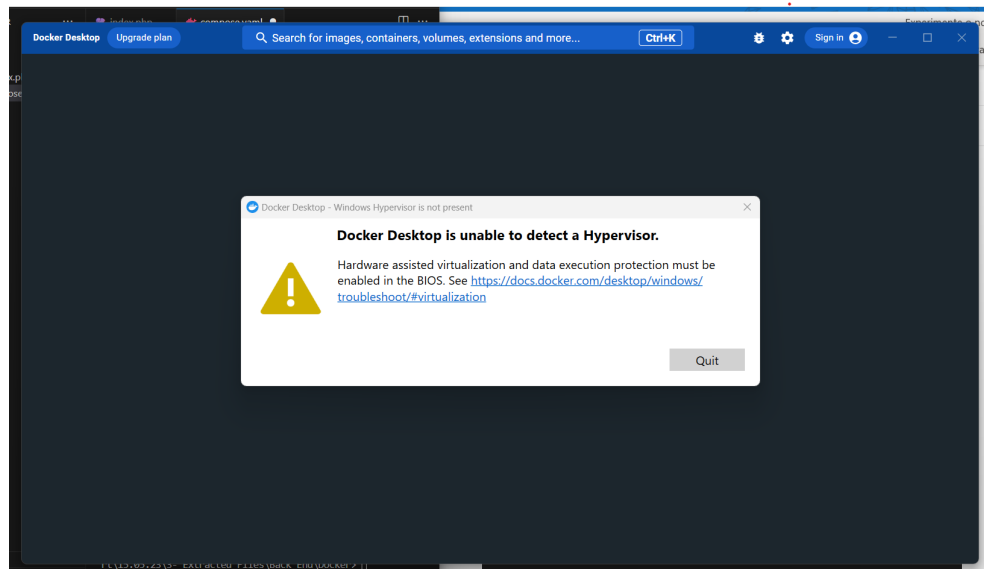


# Docker Installation - SQL, phpMyAdmin & PHP

## Docker desktop setup:

- Go to <https://www.docker.com/products/docker-desktop/> and download docker desktop
- Run installation with all configuration options selected
- Launch docker desktop.
- Create a docker folder and open it in VS code
- If you encounter encounter this error message. A bios fix is necessary. Fear not this may seem intimidating but it is a simple fix! If not you can skip to **Docker compose file setup:**



- To access the bios. restart your pc. During the initial startup screen press whatever key is mentioned. likely F2 or F12.
- The bios will look considerably different depending on your computer. So search the various menus for something called Hardware assisted Virtualisation Or Virtualisation Technology.
- Enable it then SAVE AND EXIT. This will restart your pc
- If done correctly next time you launch docker desktop it should work fine.

## Docker compose file setup:

- Create a file called *compose.yaml* and define your db and pma (PhpMyAdmin) configurations

```

#Yaml is a data-oriented markup language
#!!!Proper indentation is essential for the yaml to be read correctly.!!!!
version: '3.1'
services:
  php-apache-environment:
    container_name: php-apache
    build:
      context: ./php
      dockerfile: dockerfile
    volumes:
      - ./php/src:/var/www/html/ #Path_to_folder_in_windows:folder_in_container
    ports:
      - 8000:80
  container_name: db #This will function as your database server name. No to be confused with db name
  image: mysql
  restart: always
  environment:
    MYSQL_ROOT_PASSWORD: root #Root is a default user that exists for db access. This will be its password
    MYSQL_DATABASE: test_db #This is your database name. Not to be confused with server name
  ports:
    - "3308:3306"
  phpmyadmin:
    image: phpmyadmin/phpmyadmin:latest
    restart: always
    environment: #These environment values are defined above in the db configuration.
      PMA_HOST: db #Container name of your mysql
      PMA_USER: root #Default mysql db user
      PMA_PASSWORD: root #MY_SQL_ROOT_PASSWORD above
    ports:
      - "8080:80"

```

## PHP setup:

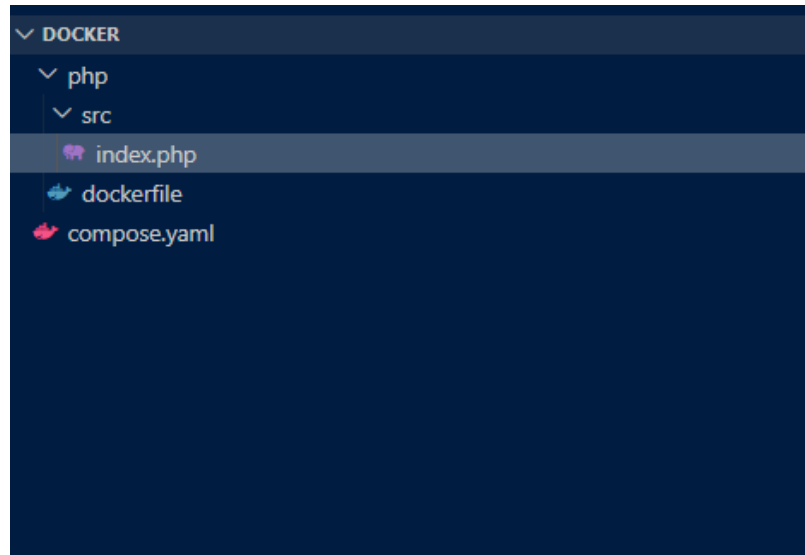
- For PHP a couple other small steps are required to define the various php extensions you will likely need.
- Create a sub folder within your docker folder called *php*.
- Create a file called *dockerfile* this file will serve as a set up of the required extensions.

```

FROM php:8.2-apache
RUN docker-php-ext-install mysqli && docker-php-ext-enable mysqli
RUN apt-get update && apt-get upgrade -y

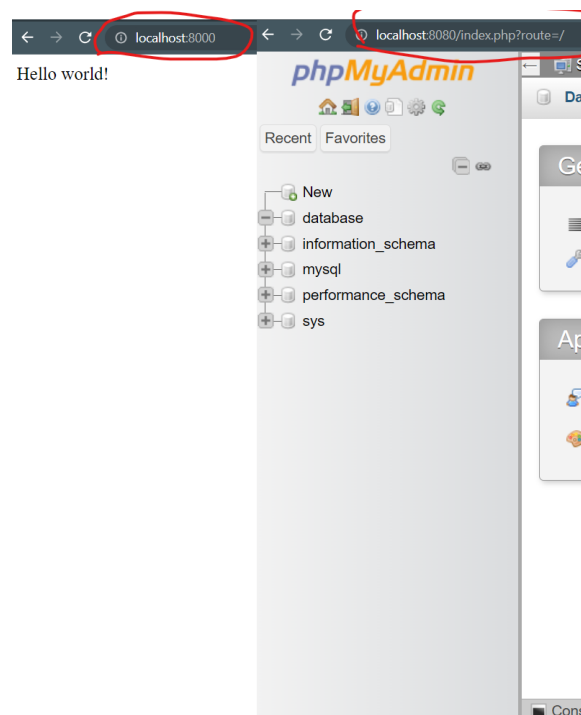
```

- These commands fetch the extensions and then enable them within your php configuration.
- Create another subfolder within your php folder called *src*. This will be the location of all your php files.
- create index.php file. You will write your php code here.
- Your folders should resemble this.



## Running docker-compose:

- Open a terminal and run the command `docker-compose up -d` to download the images then build them
- Go to localhost:8080 to see your phpMyAdmin(database) or localhost:8000 for php files



- If all works you're good to go!