Development Progress:

- Successfully installed and connected the following services:

1. PHP: v5.6
2. Apache: v.2.4.32
3. MySQL: v5.7

- Successfully utilized decoupling by utilizing containers with PID 1, allowing us to run our services without the interference of other unspecified services/processes.
  - Apache and PHP are successfully decouple, only able to interact with each other when permitted.
  - Apache Dockerfile
  - PHP Dockerfile

- Used PHP FPM to connect both containers
  - Apache uses port 80
  - PHP container utilizes port 9000
  - Utilized existing apache.conf outline that takes requests through a proxy for our PHP files to our PHP container.
  - Utilizing front end and back end in docker-compose.conf so only the apache container is exposed on selected port.
  - Demo for website uses port 8080
- Utilized Volumes for code distribution
  - Apache and PHP both have access the same specified volume
  - Mapping from local system to containers as to make changes to repository file more easily.

Development so far:

- With our services set up, and running independently from each other in separate containers, we have our original goal of a working LAMP Server that allows us to continue with our extended goal of the development of a web service that displays images selected from the MySQL Database.

- Have test website working on local machines
  - Index.php file displays:
    - Welcome Message.
    - Showing if MySQL was successfully connected to.
    - Demo of image displaying capability.
- Our files are uploaded onto Docker Hub and currently uploaded as a repository on Git Hub.
  - Working on moving images onto Git Hub for integration onto Cloud Lab

Future Development Tasks

- Development of selecting images to be displayed onto our web page using PHP and MySQL functionality is now underway.
  - ETA on delivery is unknown, secondary goal after having a fully secure LAMP Stack
- Establishing a fully automated profile on Cloud Lab/Git Hub

Conclusion:

- **Deliverable 2**
  - As a team, we believe we have met with the requirements of the deliverable 2, as well as succeeded in our goal of establishing a fully functional LAMP Stack Service. We have utilized information and instructions from online resources in an efficient manner, allowing us to produce a demo of our desired extended goal of developing a Web page showing pictures selected from database container on docker.
- **Deliverable 3**
  - We believe that we are on track to complete the requirements for deliverable 3 which is to have a fully automated profile on Cloud Lab/Git Hub.

docker-compose.yml

Docker Containers: Apache, PHP, MySQL

apache.conf

Demo