

Mistakes done and learnings made: As I believe its always about learning from your mistakes and getting damn strong

1) Implementation of Static Web Hosting using Apache in Docker with PHP Environment

```
Terminal + x

PS C:\Users\sreev> mkdir phpPractice
Q
Windows Pow... X

Directory: C:\Users\sreev

Mode LastWriteTime Length Name
---- ----- ---- -
d---- 26-02-2026 17:05 phpPractice

PS C:\Users\sreev> cd phpPractice
PS C:\Users\sreev\phpPractice> notePad dockerfile
PS C:\Users\sreev\phpPractice> ren dockerfile.txt dockerfile
PS C:\Users\sreev\phpPractice> ls
D
Directory: C:\Users\sreev\phpPractice

RAM 1.48 GB CPU 0.25% Disk: 8.75 GB used (limit 1006.85 GB) _ Terminal ⓘ Update available
```

```
Terminal + ▾ ×

PS C:\Users\sreev\phpPractice> notepad index.html
PS C:\Users\sreev\phpPractice> ls

Directory: C:\Users\sreev\phpPractice

Mode LastWriteTime Length Name
---- ----- ----- ----
-a--- 26-02-2026 17:08 137 dockerfile
-a--- 26-02-2026 17:09 30 index.html

PS C:\Users\sreev\phpPractice> docker build -t phptimage .
[+] Building 1.4s (8/8) FINISHED
=> [internal] load build definition from dockerfile
=> => transferring dockerfile: 176B
=> [internal] load metadata for docker.io/library/ubuntu:latest

RAM 1.48 GB CPU 0.33% Disk: 8.75 GB used (limit 1006.85 GB) docker-desktop-linux
0.1s
0.0s
0.1s
↓

Windows Pow... ×
```

```
Terminal + ▾ ×

transferring context: 2B
[1/3] FROM docker.io/library/ubuntu:latest@sha256:d1e2e92c075e5ca139d51a140fff46f84315cf0fce203eb2807c7e495eff49
--> resolve docker.io/library/ubuntu:latest@sha256:d1e2e92c075e5ca139d51a140fff46f84315cf0fce203eb2807c7e495eff49
[internal] load build context
--> transferring context: 67B
CACHED [2/3] RUN apt update && apt install -y php
[3/3] COPY index.html /var/www/html
--> exporting to image
--> exporting layers
--> exporting manifest sha256:a2f5c72ba09a050ba337e4b96654dd329a245f0db2f5060ad1337e51b0a96
--> exporting config sha256-eabb70854fe0fc854b617c3f9420c115db51e7322be8a88c31e1e8525h8
--> exporting attestation manifest sha256:f0ec92ae715ed8633d85b4b41f72b2c0f7fb1409e9d3492eeb22ccbe93cd24f
--> exporting manifest list sha256:5e608050399778d57c9bd29e3e8d28877abef9cc3af82f39680d519363850ef
--> naming to docker.io/library/phpimage:latest
--> unpacking to docker.io/library/phpimage:latest
PS C:\Users\sreev\phpPractice> docker run -lt --name phpcnt -p 8080:80 phpimage
AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 172.17.0.2. Set the 'ServerName' directive globally to suppress this message
RAM 1.48 GB CPU 0.17% Disk: 8.75 GB used (limit 1006.85 GB)
```

Number of Steps to Reduce a N... × localhost:8080

localhost:8080

Machine Learning Neural Networks ar... Density-based clust... Fisher LDA-Stanford Competitive Progra... CVB in Unsupervise... Red Hat Academy System Design Primer All Bookmarks

Hi its Hi from Vishnu

Terminal

```
⇒ exporting to image
⇒ ⇒ exporting layers
⇒ ⇒ exporting manifest sha256:a2f5c72ba09a050ba0337e4b96654dd329a245f0dbb2f5060ad1337e51b64a06
⇒ ⇒ exporting config sha256:eb07a85a0feffcd854b617c5c3f0420c115db51e7322be8ab8c31e1e85225b8
⇒ ⇒ exporting attestation manifest sha256:f6e92ae7f15ed633d5b54b1f72a2c8f7fb14b6e93d492eeb22ccbe93cd24f
⇒ ⇒ exporting manifest list sha256:5ee6805d39c9778d57c9bd29e3e8d28877abef0cc3af82f39680d319363858ef
⇒ ⇒ naming to docker.io/library/phpimage:latest
⇒ ⇒ unpacking to docker.io/library/phpimage:latest
PS C:\Users\sreev\phpPractice> docker run -it --name phpcont -p 8080:80 phpimage
AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 172.17.0.2. Set the 'ServerName' directive globally to suppress this message
^C
PS C:\Users\sreev\phpPractice> type dockerfile
FROM ubuntu:latest
RUN apt update && apt install -y php
COPY index.html /var/www/html
EXPOSE 80
CMD ["apachectl","-D","FOREGROUND"]
PS C:\Users\sreev\phpPractice> █
```

RAM 1.47 GB CPU 0.00% Disk: 8.75 GB used (limit 1006.85 GB)

> Terminal Update available

2) Implementation of Dynamic PHP Web Application using Apache-PHP Integration in Docker

Terminal

```
PS C:\Users\sreev\phpPractice> notepad dockerfile
PS C:\Users\sreev\phpPractice> ls

Directory: C:\Users\sreev\phpPractice

Mode                LastWriteTime       Length Name
----                -----          ---- 
-a----   26-02-2026     17:35            221 dockerfile
-a----   26-02-2026     17:24             42 index.php

PS C:\Users\sreev\phpPractice> type dockerfile
FROM ubuntu:latest
RUN apt update && apt install -y apache2 php libapache2-mod-php && echo "Servername localhost">>/etc/apache2/apache2.conf
COPY index.php /var/www/html
EXPOSE 80
CMD ["apachectl","-D","FOREGROUND"]
```

RAM 2.24 GB CPU 0.08% Disk: 9.74 GB used (limit 1006.85 GB)

> Terminal Update available

Terminal

```
PS C:\Users\sreev\phpPractice> docker build --no-cache -t phptimage2 .
[+] Building 106.0s (8/8) FINISHED
⇒ [internal] load build definition from dockerfile
⇒ ⇒ transferring dockerfile: 291B
⇒ [internal] load metadata for docker.io/library/ubuntu:latest
⇒ [internal] load .dockerignore
⇒ ⇒ transferring context: 28
⇒ ⇒ CACHED [1/3] FROM docker.io/library/ubuntu:latest@sha256:d1e29c075e5ca139d51a140fff46f84315c0fdce203eb2807c7e495eff4f9
⇒ ⇒ resolve docker.io/library/ubuntu:latest@sha256:d1e29c075e5ca139d51a140fff46f84315c0fdce203eb2807c7e495eff4f9
⇒ [internal] load build context
⇒ ⇒ transferring context: 308
⇒ ⇒ [2/3] RUN apt update && apt install -y apache2 php libapache2-mod-php && rm /var/www/html/index.html && echo "Servername localhost">>/etc/apache2/apache2.conf
⇒ ⇒ [3/3] COPY index.php /var/www/html
⇒ ⇒ exporting to image
⇒ ⇒ exporting layers
⇒ ⇒ exporting config sha256:491b4458901ccb446a5f6f39ef2c95236332a026f85fb3fe05a44944aa43089
⇒ ⇒ exporting attestation manifest sha256:641e7562fe424f45ff7a2b338f80e85319a09/4cc/0421c43ec85386a114ff
⇒ ⇒ exporting manifest list sha256:22935cc1d66212f9f36db65fe2fe1533be471721757b9a9768b3db3d75eb34ff
```

RAM 2.24 GB CPU 0.08% Disk: 9.74 GB used (limit 1006.85 GB)

> Terminal Update available

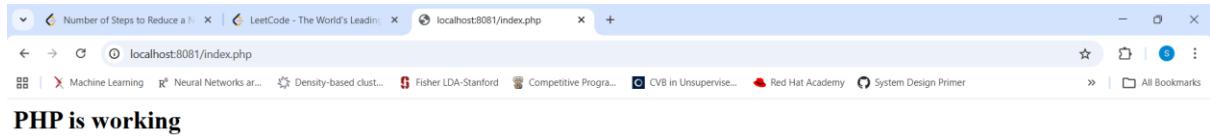
Terminal

```

--> [internal] load .dockerrcignore
--> transferring context: 2B
--> CACHED [1/3] FROM docker.io/library/ubuntu:latest@sha256:d1e2e92c075e5ca130d51a140fff46f84315c0fdce203eab2807c7e495eff4f9
--> resolve docker.io/library/ubuntu:latest@sha256:d1e2e92c075e5ca130d51a140fff46f84315c0fdce203eab2807c7e495eff4f9
--> [internal] load build context
--> transferring context: 30B
--> [2/3] RUN apt update && apt install -y apache2 php libapache2-mod-php && rm /var/www/html/index.html && echo "Servername localhost">>/etc/apache2/apache2.conf
--> [3/3] COPY index.php /var/www/html
--> exporting image
--> exporting layers
--> exporting manifest sha256:5df46557ed9406063c143a9c3f5bce306a18ce8b43a8a403e560ed85cf391046
--> exporting config sha256:a91b445891c4cb446a5f6f59ef2c95236332a026f85fb3fe6a0449a4aa43089
--> exporting attestation manifest sha256:641e7562fe424f45ff7a7b338fbbe85319a974cc70421c43ec85836a114ff
--> exporting manifest list sha256:22935cc1cd66212f9f36db65e2fe1533be471721757b9a9768b3db3d75eb34ff
--> naming to docker.io/library/phpimage2.latest
--> unpacking to docker.io/library/phpimage2.latest
PS C:\Users\sreev\phpPractice> docker run -d --name phptcont2 -p 8081:80 phptimage2
21fb9dbdc51ba3e21ffd844c191c67673925e1e76e81fa7150d1d8288726622
PS C:\Users\sreev\phpPractice> type phptimage2

```

RAM 2.24 GB CPU 0.08% Disk: 9.74 GB used (limit 1006.85 GB)



Terminal

```

PS C:\Users\sreev\phpPractice> type index.php
<?php
echo "<h1>PHP is working</h1>";
?>
PS C:\Users\sreev\phpPractice> type dockerfile
FROM ubuntu:latest
RUN apt update && apt install -y apache2 php libapache2-mod-php && rm /var/www/html/index.html && echo "Servername localhost">>/etc/apache2/apache2.conf
COPY index.php /var/www/html
EXPOSE 80
CMD ["apachectl","-D","FOREGROUND"]
PS C:\Users\sreev\phpPractice>

```

RAM 2.25 GB CPU 0.00% Disk: 9.74 GB used (limit 1006.85 GB)

3) Deployment of a Dynamic PHP Web Application Using Official PHP-Apache Docker Image

Terminal

```

FROM ubuntu:latest
RUN apt update && apt install -y apache2 php libapache2-mod-php && rm /var/www/html/index.html && echo "Servername localhost">>/etc/apache2/apache2.conf
COPY index.php /var/www/html
EXPOSE 80
CMD ["apachectl","-D","FOREGROUND"]
PS C:\Users\sreev\phpPractice> cd ..
PS C:\Users\sreev> mkdir phpPracticemain

Directory: C:\Users\sreev

Mode                LastWriteTime        Length Name
----                -----        ---- 
d----- 26-02-2026       18:55            phpPracticemain

PS C:\Users\sreev> cd phpPracticemain
PS C:\Users\sreev\phpPracticemain> notepad dockerfile

```

RAM 1.61 GB CPU 9.05% Disk: 10.29 GB used (limit 1006.85 GB)

Terminal

```
PS C:\Users\sreev\phpPracticemain> ren dockerfile.txt dockerfile
PS C:\Users\sreev\phpPracticemain> docker build -t phpimage3 .
[+] Building 24.8s (B/R) FINISHED
=> [internal] load build definition from dockerfile
=> => transferring dockerfile: 97B
=> [internal] load metadata for docker.io/library/php:8.2-apache
=> [auth] library/php pull token for registry-1.docker.io
=> [internal] load .dockertignore
=> => transferring context: 28
=> [internal] load build context
=> => transferring context: 758
=> [1/2] FROM docker.io/library/php:8.2-apache@sha256:1628cad804f867206938d9f693bae5d05a2d7db6c58752ff0c3acc1c2b5eebca
=> => resolve docker.io/library/php:8.2-apache@sha256:1628cad804f867206938d9f693bae5d05a2d7db6c58752ff0c3acc1c2b5eebca
=> sha256:b3c8ac2d0285786dfb59332bhbfb8df35cd73f2d4b4a85729aaed3f56691f8 246B
=> sha256:78488de071658522f9bcc591b6685acc88294b0bc931bfb5f2d830493726 893B / 893B
=> sha256:b60232959313f2d9e8852bc0177cc63c37ae639ad0b4125731ceb78c8481b64 250B / 250B
=> sha256:c3061df5fe0828c34d79366bd3aaef1544581f98951c13d2ff88025397d2d 2.46kB / 2.46kB
=> sha256:486fffb9e43b14758415ad2d21ba41884ffbe14f20ea04527c09c49170614e 490B / 490B
=> sha256:feb36511d96f8aad809b1426c5532a6722ecb0289fedbc1879f299ac0e1e7027 11.46MB / 11.46MB

```

RAM 1.61 GB CPU 0.00% Disk: 10.29 GB used (limit 1006.85 GB)

Terminal

```
=> => exporting layers
=> => exporting manifest sha256:e087914fa4085e81d6fcdfc8ef710238989b331bcb9f15de7167507321d61a0e
=> => exporting config sha256:890167dd9f27f6a9b5d97482a66caa7485a9d13cc71fc941020c5266b65d4
=> => exporting attestation manifest sha256:09a95f6dc465e6f1e9446e67d309e91b46532d6bcb81790841c0ada951621
=> => exporting manifest list sha256:f3d19853a231e6989f7dd848ed03aab4acc0a635f0976899c7af346db1e68a0e
=> => naming to docker.io/library/phpimage3:latest
=> => unpacking to docker.io/library/phpimage3:latest
PS C:\Users\sreev\phpPracticemain> docker run -it --name phpcont3 -p 8082:80 phpimage3
AH00559: apache2: Could not reliably determine the server's fully qualified domain name, using 172.17.0.2. Set the 'ServerName' directive globally to suppress this message
AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 172.17.0.2. Set the 'ServerName' directive globally to suppress this message
[Thu Feb 26 13:29:36.153647 2026] [mpm_prefork:notice] [pid 1:tid 1] AH00163: Apache/2.4.66 (Debian) PHP/8.2.30 configured -- resuming normal operations
[Thu Feb 26 13:29:36.153745 2026] [core:notice] [pid 1:tid 1] AH00994: Command line: 'apache2 -D FOREGROUND'
172.17.0.1 - - [26/Feb/2026:13:29:50 +0000] "GET / HTTP/1.1" 200 256 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/145.0.0.0 Safari/537.36"
172.17.0.1 - - [26/Feb/2026:13:29:58 +0000] "GET /favicon.ico HTTP/1.1" 404 529 "http://localhost:8082/" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/145.0.0.0 Safari/537.36"
```

RAM 1.61 GB CPU 0.00% Disk: 10.29 GB used (limit 1006.85 GB)



Terminal

```
PS C:\Users\sreev\phpPracticemain> type dockerfile
FROM php:8.2-apache
COPY index.php /var/www/html
EXPOSE 80
PS C:\Users\sreev\phpPracticemain> type index.php
<?php
echo "<h1>Hi from php</h1>";
?>
PS C:\Users\sreev\phpPracticemain>
```

RAM 1.60 GB CPU 0.33% Disk: 10.29 GB used (limit 1006.85 GB)