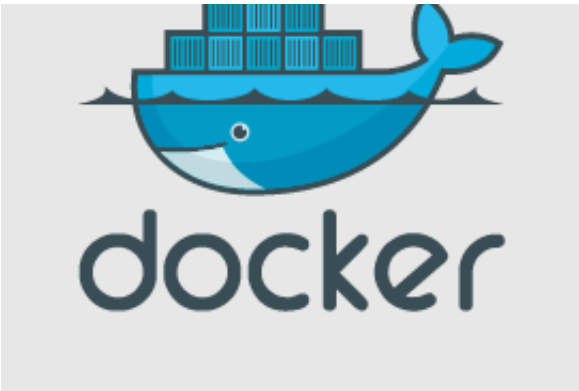
Creating container volumes in windows 201



Creating container volumes in win 2016

In this blog, we will share you creating container volumes in windows 2016 using docker commands.

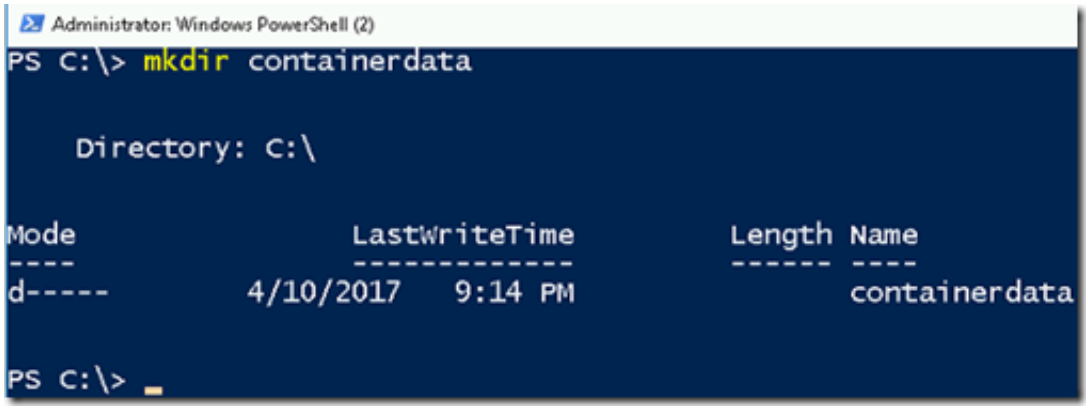
OVERVIEW

In addition, to store the data inside the container while building, we can also set it up the container to access their environment. For example, create a folder on container host and we can access the folder from inside t

CREATING CONTAINER FOLDER

- Create a folder in C:\ drive named **containerdata** using below command.

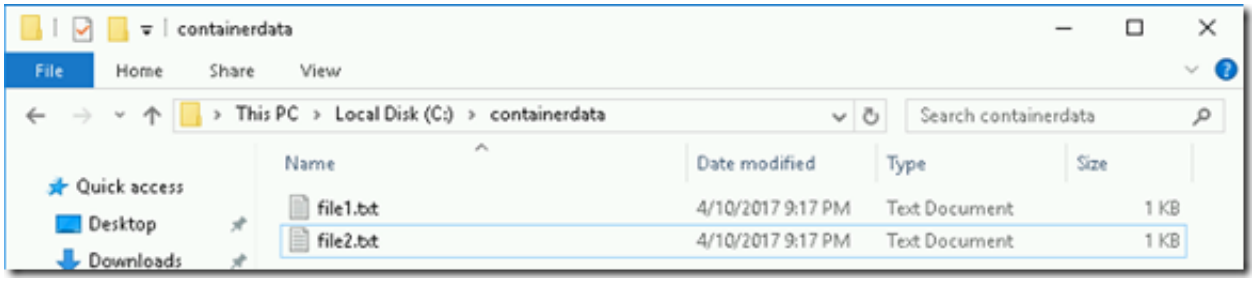
mkdir containerdata



(https://www.assistanz.com/w

content/uploads/2017/04/image-109.png)

- Create two new files named **file1.txt** and **file2.txt**



(https://www.assis

content/uploads/2017/04/image-110.png)

LAUNCHING NEW CONTAINER AND MAP THE FOLDER

- Create a new container along with mapping using below command.

SYNTAX : docker run -it -v <sourcefolderpath>:<destination folder path where source folder to be mo <container OS image< <process to kickstart during creation>

EXAMPLE: docker run -it -v c:\containerdata:c:\mydata azcontainerr/web powershell

docker – Base command for docker command line interface.

-it – To start the docker container in interactive mode.

-v – to map the local folder (or) data volume to a folder inside the container.

c:\containerdata – It's the source folder from the container host

c:\mydata – Define the path where the source folder to be mounted.

azcontainerr/web – Image to start the container

PowerShell – To kickstart the PowerShell process inside the container.

(https://www.assistanz.com/wp-content/uploads/2017/04/image-111.png)

- Once the container up and running, List the files and folders to verify **mydata** folder is available.

```
PS C:\> dir


    Directory: C:\


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
d-----        4/10/2017   9:35 PM                inetpub
d----l        4/10/2017   9:35 PM                mydata
d-----        7/16/2016   6:18 AM                PerfLogs
d-r---        4/10/2017   9:36 PM                Program Files
d-----        7/16/2016   6:18 AM                Program Files (x86)
d-r---        4/10/2017   9:35 PM                Users
d-----        4/10/2017   9:36 PM                Windows
-a----       11/22/2016   2:45 PM           1894 License.txt


PS C:\>
```

(https://www.assista

content/uploads/2017/04/image-112.png)

- If we list the files inside **mydata**, we can see our files **file1.txt** and **file2.txt.**

```
PS C:\> dir c:\mydata


    Directory: C:\mydata


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
-a----        4/10/2017   9:17 PM             18 file1.txt
-a----        4/10/2017   9:17 PM             19 file2.txt


PS C:\>
```

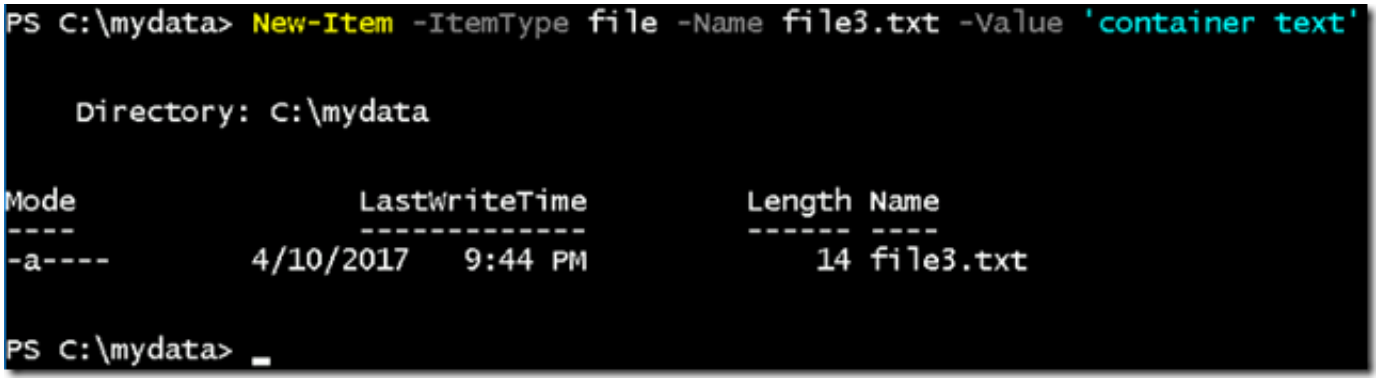
(https://www.assistar

content/uploads/2017/04/image-113.png)

- Create a new file inside the **mydata** folder using below command.

New-Item -ItemType file -Name file3.txt -Value 'container text'

```
PS C:\mydata> New-Item -ItemType file -Name file3.txt -Value 'container text'

    Directory: C:\mydata

Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
-a----         4/10/2017   9:44 PM             14 file3.txt

PS C:\mydata> _
```



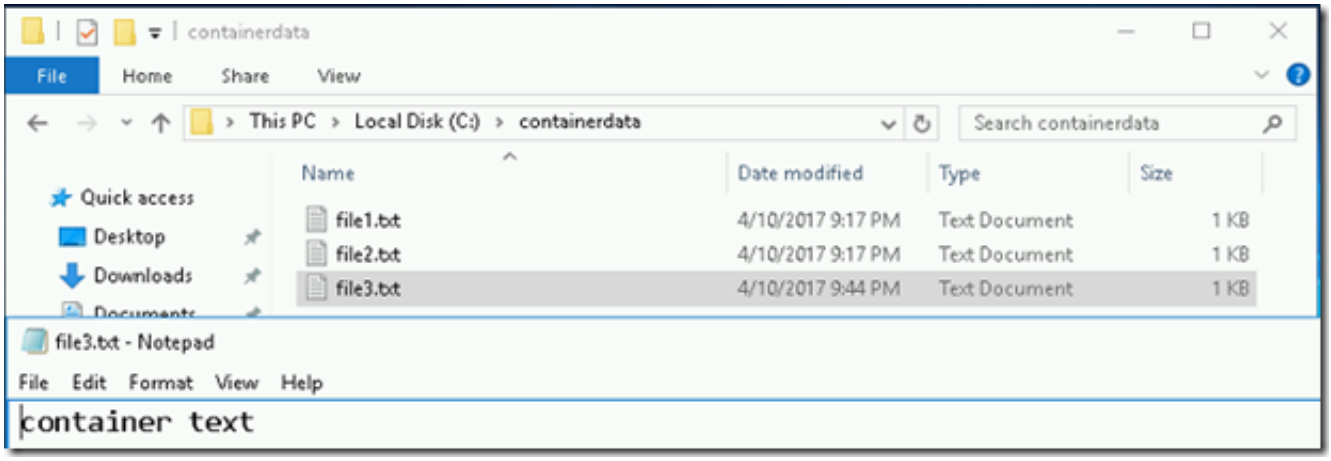
(https://www.assistanz.com/wp-content/uploads/2017/04/image-114.png)

- List the directory and we can able to find the third file in the list.

```
PS C:\mydata> dir


    Directory: C:\mydata


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
-a----         4/10/2017   9:17 PM             18 file1.txt
-a----         4/10/2017   9:17 PM             19 file2.txt
-a----         4/10/2017   9:44 PM             14 file3.txt


PS C:\mydata> _
```

(https://www.assistanz.com/wp-content/uploads/2017/04/image-115.png)

- We can able to see the file from the container host.



(https://www.assistanz.com/wp-content/uploads/2017/04/image-116.png)

- Quit from the container using below command.

exit

(https://www.assistanz.com/wp-content/uploads/2017/04/image-117.png

- Now container is in stopped mode. We can verify it using **docker ps –a** command.

(https://www.assistanz.com/wp-content/uploads/2017/04/image-118.png)

REMOVING CONTAINER

- Now delete the container using **rm** command.

docker rm 9d

```
PS C:\> docker rm 9d
9d
PS C:\> _
```

(https://www.assistanz.com/wp-content/uploads/2017/04/image-119.pn

- There are no containers available now.

```
PS C:\> docker ps -a
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS              PORTS
PS C:\> _
```

(https://www.assistanz.com/wp-content/uploads/2017/04/image-120.png)

- You can see all three files available in the **c:\containerdata** folder from the container host

```
PS C:\> dir C:\containerdata\


    Directory: C:\containerdata


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
-a----        4/10/2017   9:17 PM             18 file1.txt
-a----        4/10/2017   9:17 PM             19 file2.txt
-a----        4/10/2017   9:44 PM             14 file3.txt


PS C:\> _
```

(https://www.assistanz.cc

content/uploads/2017/04/image-121.png)

- The data are available after we delete the containers.

CREATING PERSISTENT DATA VOLUMES

- We can create persistent data volumes that can be shared access multiple containers. It's like virtual volume whi connected to different containers.

- To create persistent data volume, use the below command.

SYNTAX: **docker run -it -v <data volume name>:<Folder name where data volume to be mounted> <co name> <command to kickstart the process>**

EXAMPLE: **docker run -it -v mydata:c:\demo azcontainerr/web powershell**

docker – Base command for docker command line interface.

-it – To start the docker container in interactive mode.

-v – to map the local folder (or) data volume to a folder inside the container.

mydata – create a data volume

c:\demo – where data volume should be mounted inside the container

azcontainerr/web – Image to start the container

powershell – To kickstart the PowerShell process inside the container.

```
PS C:\> docker run -it -v mydata:c:\demo azcontainerr/web powershell
```

(https://www.assistanz.com/wp-content/uploads/2017/04/image-122.png)

- Once the container is up and running, list the folders to verify **demo** folder is available.

```
PS C:\> dir


    Directory: C:\


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
d----l         4/10/2017  11:02 PM                demo
d-----         4/10/2017  11:02 PM                inetpub
d-----         7/16/2016   6:18 AM                PerfLogs
d-r---         4/10/2017  11:02 PM                Program Files
d-----         7/16/2016   6:18 AM                Program Files (x86)
d-r---         4/10/2017  11:02 PM                Users
d-----         4/10/2017  11:06 PM                Windows
-a----        11/22/2016   2:45 PM           1894 License.txt


PS C:\> _
```

(https://www.assistanz.com/wp-content/uploads/2017/04/image-123.png)

- There is no files are available under demo folder.

```
PS C:\> cd demo
PS C:\demo> dir
PS C:\demo> _
```
(https://www.assistanz.com/wp-content/uploads/2017/04/image-124.png)

- Create a new file named **test.txt** using below command.

New-Item -Itemtype file -Name test.txt -Value 'hello assistanz'

```
PS C:\demo> New-Item -ItemType File -Name test.txt -Value 'hello assistanz'


    Directory: C:\demo


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
-a----        4/10/2017  11:10 PM             15 test.txt


PS C:\demo> _
```
(https://www.ass

content/uploads/2017/04/image-125.png)

- Now disconnect this container by pressing **CTRL+PQ** keys.

```
PS C:\demo>
PS C:\> _
```
(https://www.assistanz.com/wp-content/uploads/2017/04/image-126.png)

- Make sure that container is in running state by executing **docker ps** command.

```
PS C:\> docker ps
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS
c70155c97202        azcontainerr/web    "powershell"        11 minutes ago      Up 11 minute
PS C:\> _
```

(https://www.assistanz.com/wp-content/uploads/2017/04/image-127.png)

- Launch a new container with same volume mapping using below command.

docker run -it -v mydata:c:\demo azcontainerr/web powershell

```
PS C:\> docker run -it -v mydata:c:\demo azcontainerr/web powershell_
```

(https://www.assistanz.com/wp-content/uploads/2017/04/image-128.png)

- Once container up and running, list the folders to view **demo** folder.

```
PS C:\> dir


    Directory: C:\


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
d----l         4/10/2017  11:18 PM                demo
d-----         4/10/2017  11:18 PM                inetpub
d-----         7/16/2016   6:18 AM                PerfLogs
d-r---         4/10/2017  11:18 PM                Program Files
d-----         7/16/2016   6:18 AM                Program Files (x86)
d-r---         4/10/2017  11:18 PM                Users
d-----         4/10/2017  11:22 PM                Windows
-a----        11/22/2016   2:45 PM           1894 License.txt


PS C:\> _
```

(https://www.
content/uploads/2017/04/image-129.png)

- If we list inside the demo folder, we can see the text file which we created from the other container.

```
PS C:\> dir demo


    Directory: C:\demo


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
-a----         4/10/2017  11:10 PM             15 test.txt


PS C:\> _
```

(https://www.assistanz.com/wp-content/uploads/2017/04/image-130.png)

- Disconnect from this container by pressing **CTRL+PQ** keys.

```
PS C:\demo>
PS C:\> _
```
(https://www.assistanz.com/wp-content/uploads/2017/04/image-131.png)

ABOUT DATA VOLUMES

- Actually, we create, manage and delete data volumes using **docker volume** command.
- To list the available data volumes in the container host, use the below command.

docker volume ls

```
PS C:\> docker volume ls
DRIVER              VOLUME NAME
local               mydata
PS C:\> _
```
(https://www.assistanz.com/wp-content/uploads/2017/(

- Make sure that container is deleted prior to delete volumes. To delete multiple containers, use the below comma

docker rm –f $(docker ps -q)

```
PS C:\> docker ps
CONTAINER ID        IMAGE                  COMMAND                  CREATED             STATUS
2733c609712f        azcontainerr/web       "powershell"             24 minutes ago      Up 24 minute
c70155c97202        azcontainerr/web       "powershell"             41 minutes ago      Up 40 minute
PS C:\>
PS C:\>
PS C:\> docker rm -f $(docker ps -q)
2733c609712f
c70155c97202
PS C:\>
PS C:\>
PS C:\> docker ps -a
CONTAINER ID        IMAGE                  COMMAND                  CREATED             STATUS
PS C:\> _
```

(https://www.assistanz.com/wp-content/uploads/2017/04/image-133.png)

- To delete the docker volume, execute the below command.

SYNTAX: docker volume rm <volume name>

COMMAND : docker volume rm mydata

(https://www.assistanz.com/wp-content/uploads/201

134.png)

- You can verify the data volumes using **docker volume ls** command.

(https://www.assistanz.com/wp-content/uploads/20

135.png)

VIDEO