



# Workshop 4 – Creating a simple cluster



- Docker cluster



**Couchbase**  
DEVELOPER COMMUNITY


# Create docker images



```
docker run -d --name db couchbase:4.5.1
```

```
docker run -d --name db2 couchbase:4.5.1
```

```
docker run -d --name db3 couchbase:4.5.1
```

 Administrator: Windows PowerShell

```
PS C:\Users\mgroves\Desktop\Connect USB> docker ps -a
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
ca672945c342	couchbase:4.5.1	"/entrypoint.sh couch"	19 minutes ago	Up 19 minutes	8091-8094/tcp, 11207/tcp, 11	db3
acabf9c982b5	couchbase:4.5.1	"/entrypoint.sh couch"	25 minutes ago	Up 25 minutes	8091-8094/tcp, 11207/tcp, 11	db2
9b07bab39738	couchbase:4.5.1	"/entrypoint.sh couch"	45 minutes ago	Up 45 minutes	0.0.0.0:8091-8094->8091-8094	db

```
PS C:\Users\mgroves\Desktop\Connect USB>
```

# Run bash on the image



```
docker exec -it db2 /bin/bash
```

 Administrator: Windows PowerShell

```
PS C:\Users\mgroves\Desktop\Connect USB> docker exec -it db2 /bin/bash
root@acabf9c982b5:/# ls -l
total 68
drwxr-xr-x    2 root root 4096 Oct 13 21:52 bin
drwxr-xr-x    2 root root 4096 Apr 10  2014 boot
drwxr-xr-x    5 root root  360 Oct 24 19:51 dev
-rwxrwxr-x    1 root root  242 Oct 13 21:51 entrypoint.sh
drwxr-xr-x   92 root root 4096 Oct 24 19:51 etc
drwxr-xr-x    2 root root 4096 Apr 10  2014 home
drwxr-xr-x   13 root root 4096 Oct 13 21:52 lib
drwxr-xr-x    2 root root 4096 Oct  6 07:47 lib64
drwxr-xr-x    2 root root 4096 Oct  6 07:46 media
drwxr-xr-x    2 root root 4096 Apr 10  2014 mnt
drwxr-xr-x    5 root root 4096 Oct 24 19:52 opt
dr-xr-xr-x  202 root root    0 Oct 24 19:51 proc
drwx-----    2 root root 4096 Oct 24 19:57 root
drwxr-xr-x    8 root root 4096 Oct 13 21:13 run
drwxr-xr-x    2 root root 4096 Oct 13 21:52 sbin
```








---

Get the IP: `/sbin/ifconfig`

# Connect to cluster



## Servers

<div>Active Servers Pending Rebalance <span>2</span> Rebalance Add Server Server Groups</div>								
Server Node Name		Group	Services	RAM Usage	Swap Usage	CPU Usage	Data/Disk Usage	Items (Active / Replica)
 172.17.0.2	Up 	Group 1	Data Index Query	 76.1%	 16.4%	 5.97%	4.06MB / 4.07MB	5 / 0
								<div>Fail Over Remove</div>



```
couchbase-cli  
  server-add -c 172.17.0.2:8091  
  --server-add=172.17.0.3:8091  
  --server-add-username=Administrator  
  --server-add-password=password  
  -u Administrator -p password
```

## Repeat for db3

---



```
couchbase-cli  
  server-add -c 172.17.0.2:8091  
  --server-add=172.17.0.4:8091  
  --server-add-username=Administrator  
  --server-add-password=password  
  -u Administrator -p password
```



# New nodes



## Servers

 Fail Over Warning: At least two servers with the data service are required to provide replication!

2

Active Servers

Pending Rebalance

Rebalance

Add Server

Server Groups

Server Node Name

Group

Services

RAM Usage

Swap Usage

CPU Usage

Data/Disk  
Usage

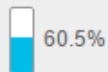
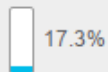
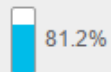
Items (Active / Replica)

 172.17.0.3

Up 

Group 1

Data



N/A

0/  
0

Pending Add

Cancel

 172.17.0.4

Up 

Group 1

Data

N/A

N/A



N/A

0/  
0


Pending Add

Cancel

# Rebalance



## Servers





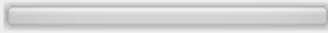









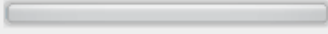
▶ Rebalancing 3 nodes 

Active Servers

Pending Rebalance

Stop Rebalance

Server Groups

Server Node Name		Group	Services	RAM Usage	Swap Usage	CPU Usage	Data/Disk Usage	Items (Active / Replica)	
▶ 172.17.0.2	Up 	Group 1	Data Index Query	 75.4%	 16.4%	 5.5%	4.06MB / 4.08MB	5 / 0	 0 % Complete
▶ 172.17.0.3	Pend 	Group 1	Data	 78.4%	 16.4%	 84.1%	N/A	0 / 0	 0 % Complete
▶ 172.17.0.4	Pend 	Group 1	Data	 78.4%	 16.4%	 84.1%	N/A	0 / 0	 0 % Complete

# Rebalance complete



## Servers

Active Servers

Pending Rebalance

Add Server

Server Groups

Server Node Name		Group	Services	RAM Usage	Swap Usage	CPU Usage	Data/Disk Usage	Items (Active / Replica)		
▶ 172.17.0.2	Up <div></div>	Group 1	Data Index Query	<div></div> 85.5%	<div></div> 16.1%	<div></div> 65.8%	1.64MB / 1.78MB	2 / 0	Fail Over	Remove
▶ 172.17.0.3	Up <div></div>	Group 1	Data	<div></div> 85.9%	<div></div> 16.1%	<div></div> 90.4%	3.59MB / 3.38MB	2 / 0	Fail Over	Remove
▶ 172.17.0.4	Up <div></div>	Group 1	Data	<div></div> 86.2%	<div></div> 16.1%	<div></div> 88%	3.93MB / 3.7MB	2 / 0	Fail Over	Remove



# Questions



Gartner  
peerinsights™

# Share your opinion on Couchbase



1. Go here: <http://gtnr.it/2eRxYWn>
2. Create a profile
3. Provide feedback (~15 minutes)

