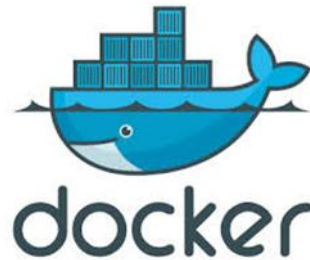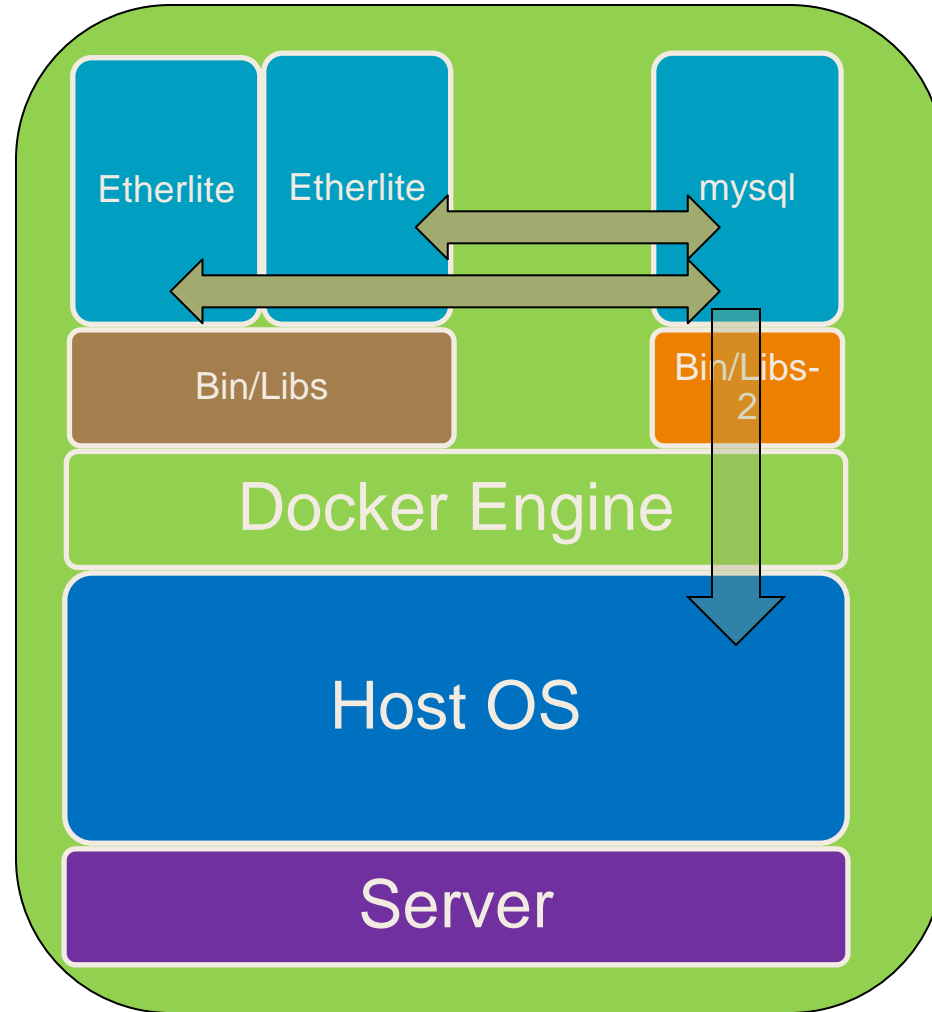# Docker Containers
Gurgaon Meetup Updates

Simple 2 container application + Updates

(Khelender Sasan)

A simple 2 linked Container setup…

A simple 2-tier web application (ether-lite)

```
$ mkdir demo
$ cd demo
$ mkdir mysql_data
$ docker run -d -e MYSQL_ROOT_PASSWORD=password --name demo_mysql -v
$PWD/mysql_data:/var/lib/mysql  mysql
<Container ID>
$ docker run -d --link=demo_mysql:mysql -p 9001:9001 mkodockx/docker-etherpad
<Container ID>
<<< Another instance for scaling can be added as well !!>>>
$ docker run -d --link=demo_mysql:mysql -p 9002:9001 mkodockx/docker-etherpad
```

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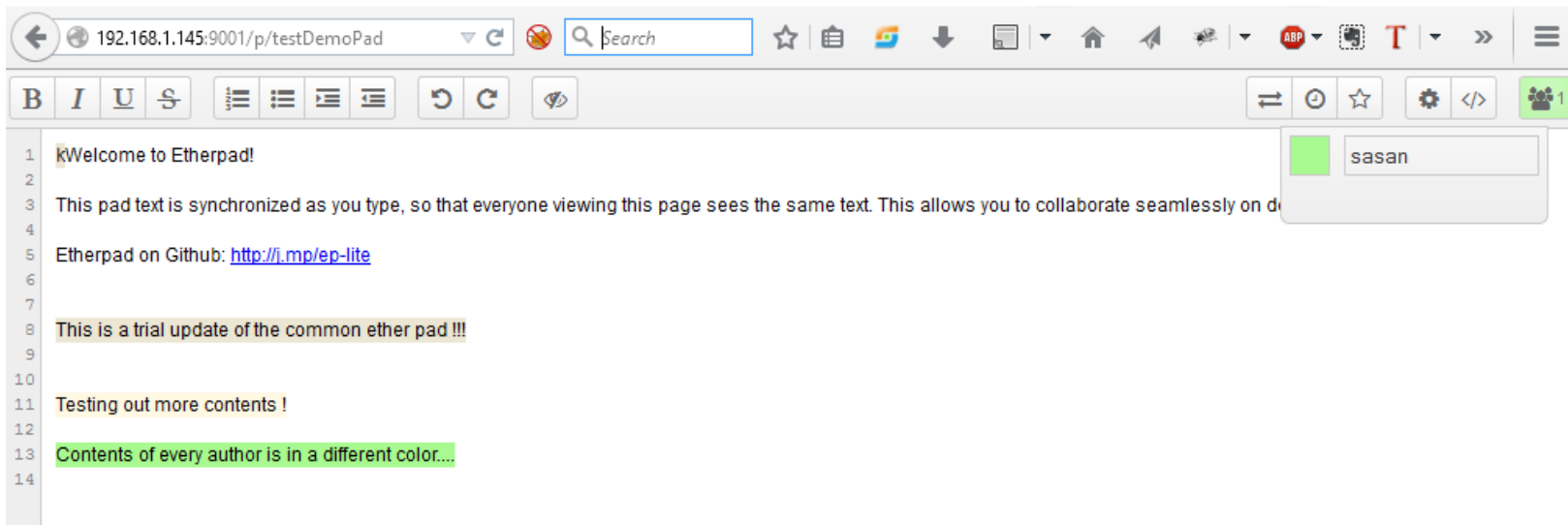
Etherpad application run…on container
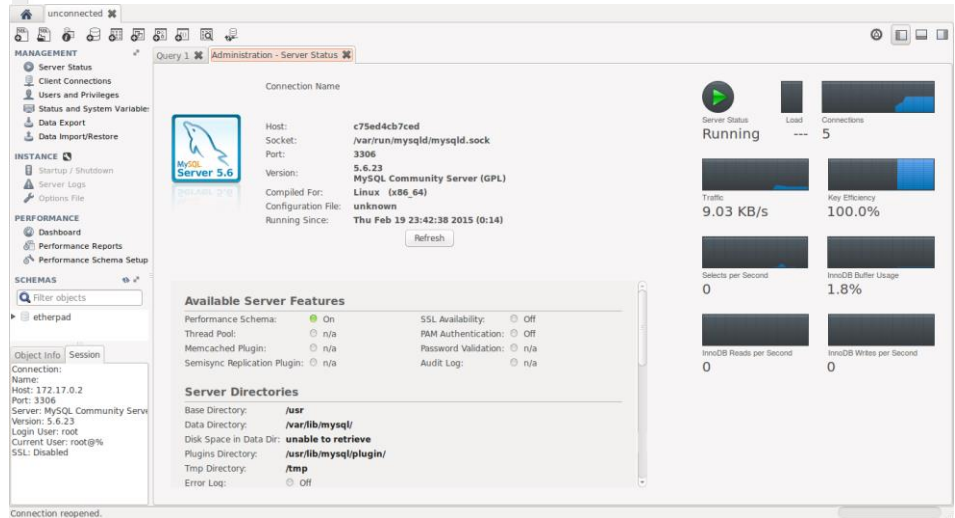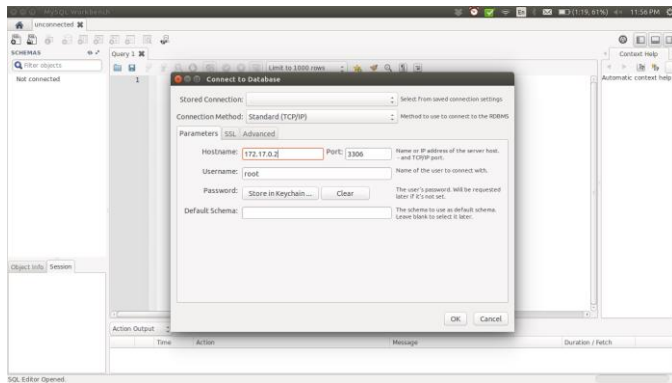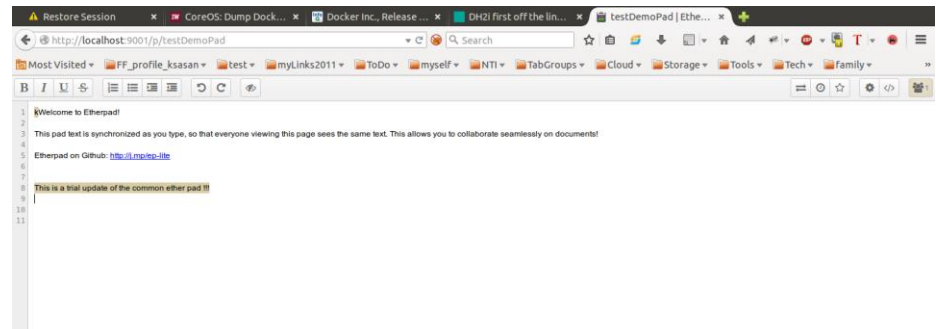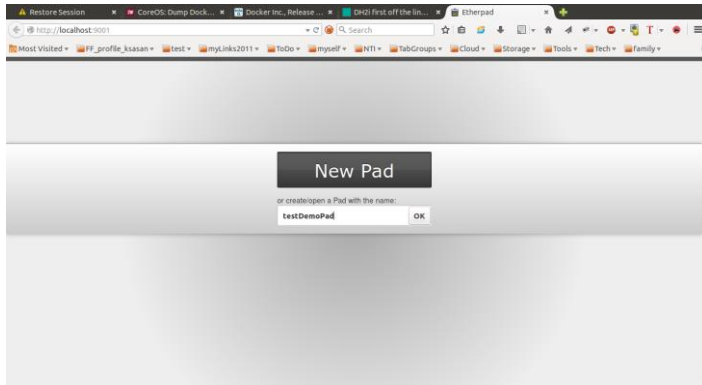
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Explaning Registry Server…


```
khelender@khelender-Latitude-E6230:~/demo$ docker images | grep registry
registry                              latest          a90be6e49f98          7 weeks ago          400.8 MB
khelender@khelender-Latitude-E6230:~/demo$ docker run -d -p 5000:5000 -v /data/registry:/data/registry -e STORAGE_PATH=/data/re
gistry registry
2813ae8e65911d093dc9bea9f3d81e7e3fbf2575fe5fa3a6d4638d34865e00c1
khelender@khelender-Latitude-E6230:~/demo$ ll /data/registry/
total 8
drwxr-xr-x 54 root root 4096 Feb 18 22:21 images
drwxr-xr-x  3 root root 4096 Feb  5 11:11 repositories
khelender@khelender-Latitude-E6230:~/demo$ ll /data/registry/
images/        repositories/
khelender@khelender-Latitude-E6230:~/demo$ ll /data/registry/repositories/library/sasan-apache2-dev/
total 28
-rw-r--r-- 1 root root 2128 Feb 18 22:21 _index_images
-rw-r--r-- 1 root root   64 Feb 18 16:08 tag_v1
-rw-r--r-- 1 root root  149 Feb 18 16:08 tagv1_json
-rw-r--r-- 1 root root   64 Feb 18 17:23 tag_v2
-rw-r--r-- 1 root root  149 Feb 18 17:23 tagv2_json
-rw-r--r-- 1 root root   64 Feb 18 22:21 tag_v3
-rw-r--r-- 1 root root  149 Feb 18 22:21 tagv3_json
khelender@khelender-Latitude-E6230:~/demo$ docker images | grep sasan-apache2-dev
localhost:5000/sasan-apache2-dev          v3          412842ebb832          2 days ago          674.4 MB
localhost:5000/sasan-apache2-dev          v2          a20fa41ec4d3          2 days ago          628.3 MB
sasan-apache2-dev                         latest      a20fa41ec4d3          2 days ago          628.3 MB
sasan-apache2-dev                         v2          a20fa41ec4d3          2 days ago          628.3 MB
localhost:5000/sasan-apache2-dev          v1          f7eb2f146513          2 days ago          407.9 MB
khelender@khelender-Latitude-E6230:~/demo$
```

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Docker Container release 1.5 updates

❑ **IPv6 support**

   o   You can now allocate an ipv6 address to each container with the new '–ipv6' flag.

   o   You can resolve ipv6 addresses from within a container.

   o   You can even use this feature to have containers communicate across multiple hosts.

❑ **Read-only containers**

   o   You can now enable a read-only filesystem for your container via the --read-only flag.

   o   The read-only feature allows you to restrict the locations that an application inside a container can write files to.

   o   By using this capability in combination with volumes, you can make sure containers only persist data where it can be managed in a known location.

❑ **Container statistics**

   o   Introduced a new stats API endpoint and CLI command that will stream live CPU, memory, network IO and block IO for your containers.

   o   You can use the API endpoint to build tools that feed live resource information for your containers into your existing monitoring solutions, or build live dashboards directly using the API.

❑ **Named Dockerfiles**

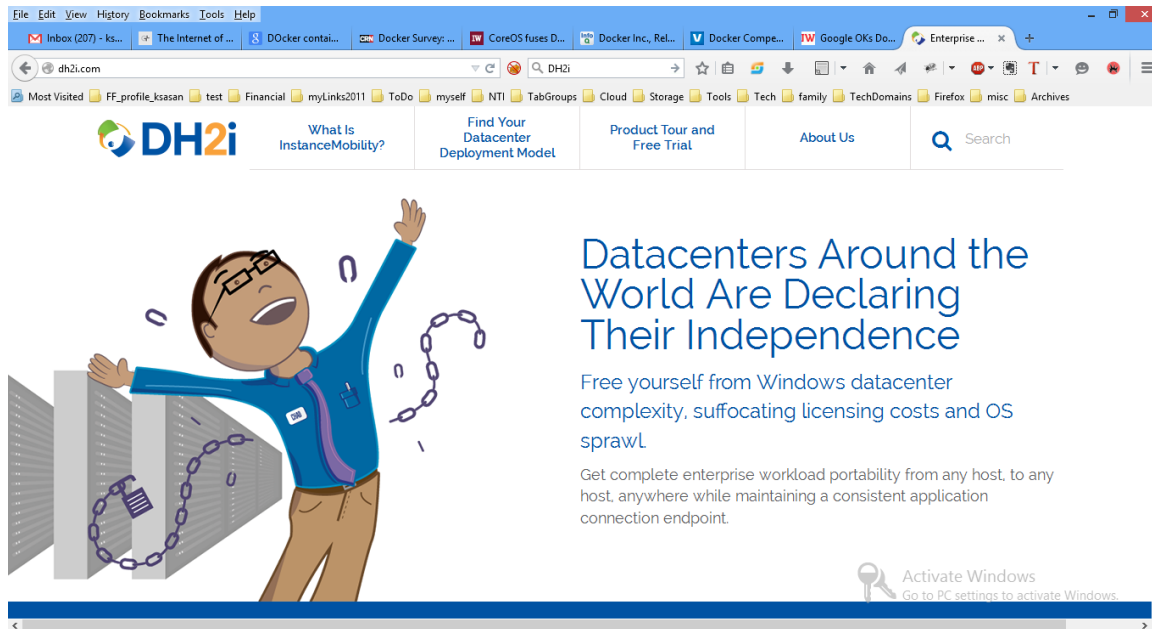   o   the ability to specify the file to use in a docker build rather than relying on the default Dockerfile. docker build -f allows you to define multiple

❑ **Docker image specification v1.0.0.**

   o   documented how Docker currently builds and formats images and their configuration. Our hope is that these details allow contributors to better understand this critical facet of Docker as well as help contribute to future efforts to improve the image format. (v1 Image spec)

Market Updates : Container for Windows !!!

❑ **DH2i : Docker Competitor Puts Windows Server Into Containers**

   o DH2i says its native Windows containers are superior

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Containers for Windows !!!

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CoreOS Rocket

❑ **Rocket is a new container runtime, designed for composability, security, and speed. Today we are releasing a prototype version on GitHub to begin gathering feedback from our community and explain why we are building Rocket.**
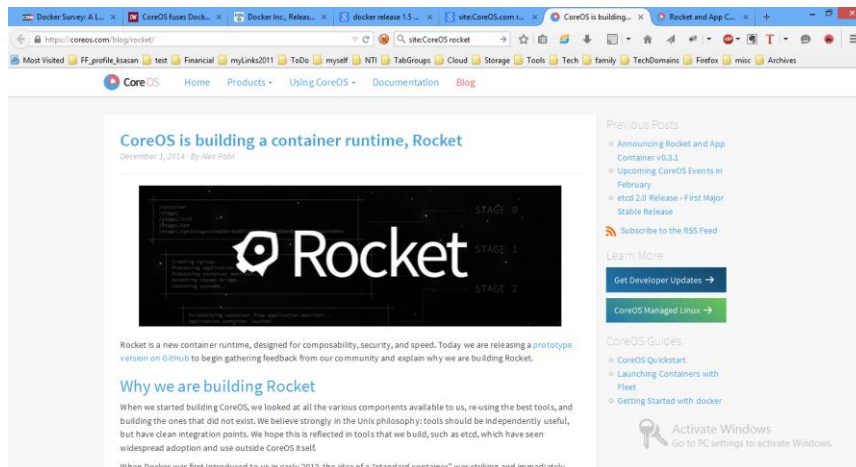
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