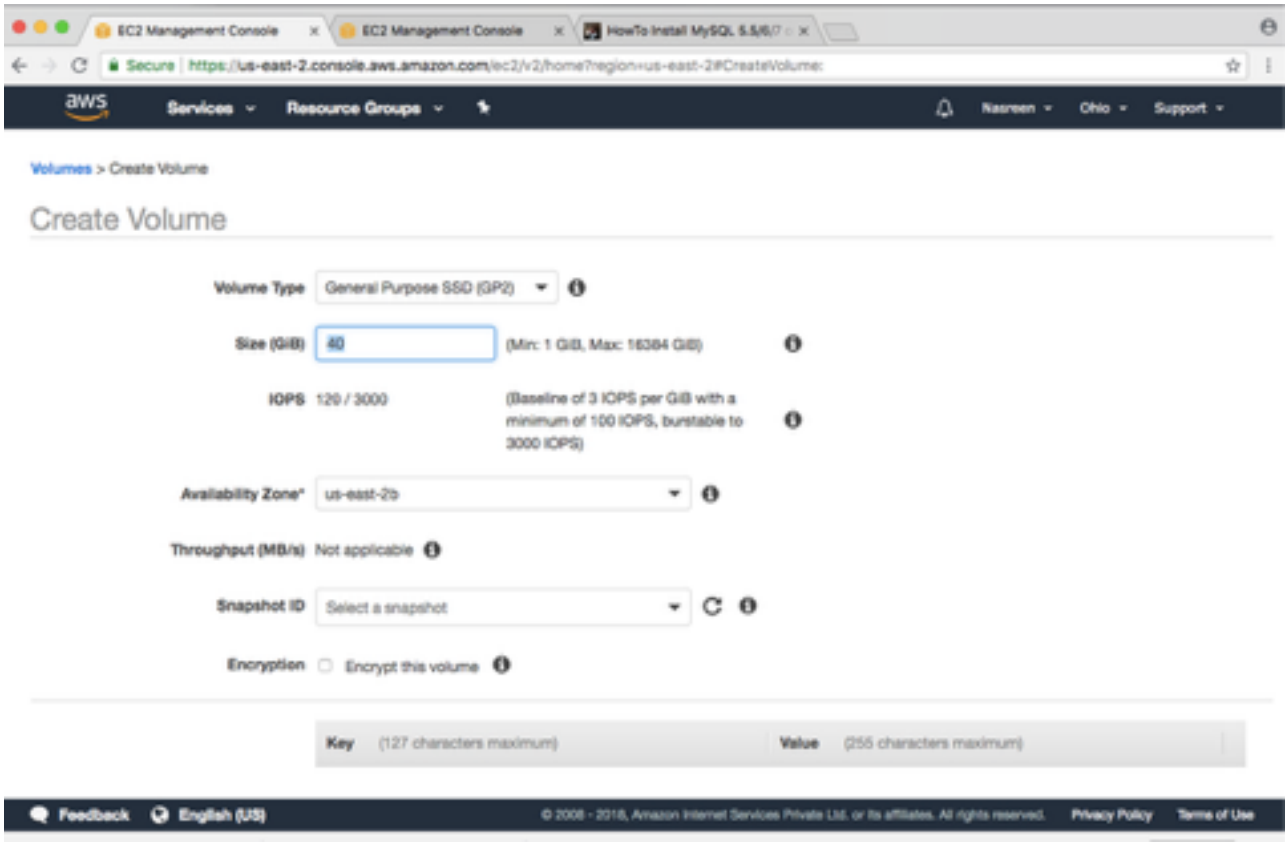
Mysql migration of BigDB from 5.5 to 5.7 on CentOS 7

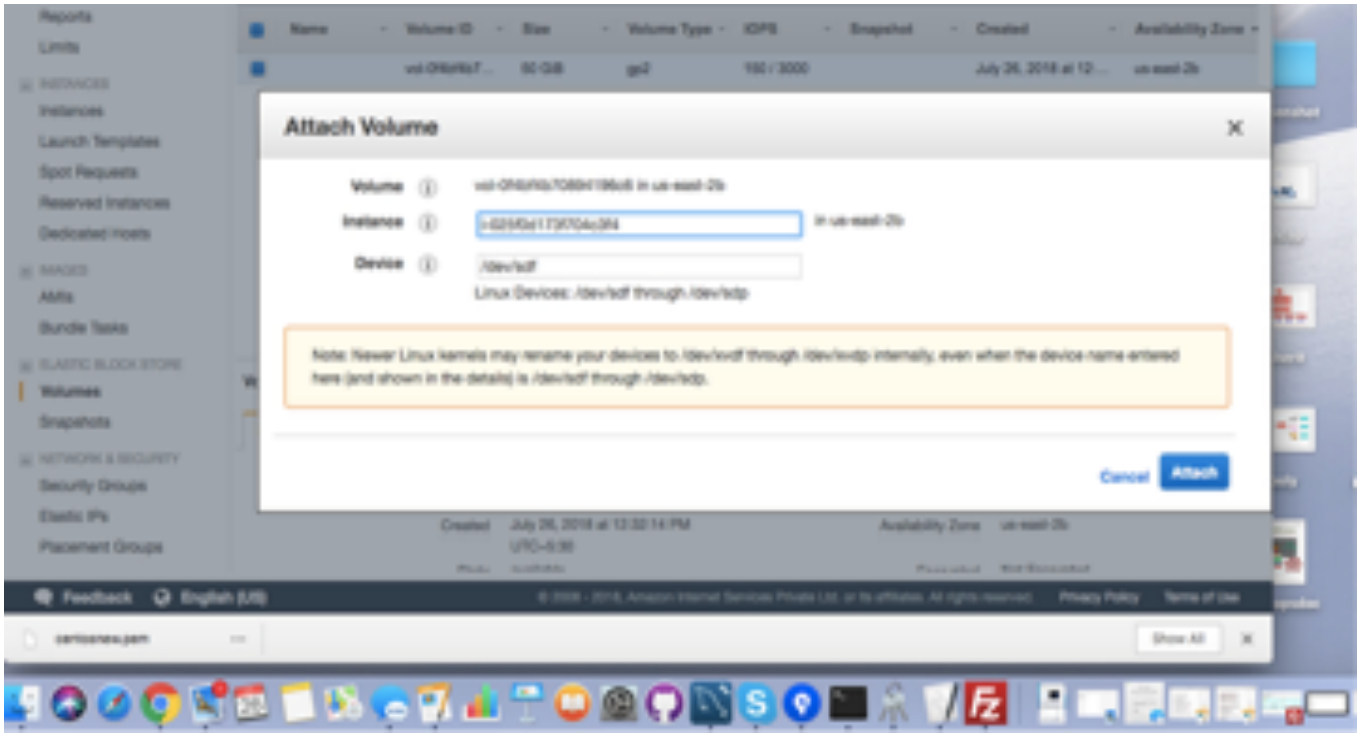
Thursday, 26 July 2018 4:23 PM

TO MIGRATE A HUGE DB THE CREATED INSTANCE HAS SHORTAGE OF STORAGE. SO LET'S CREATE A NEW VOLUME FOR THE INSTANCE USING THE FOLLOWING STEPS

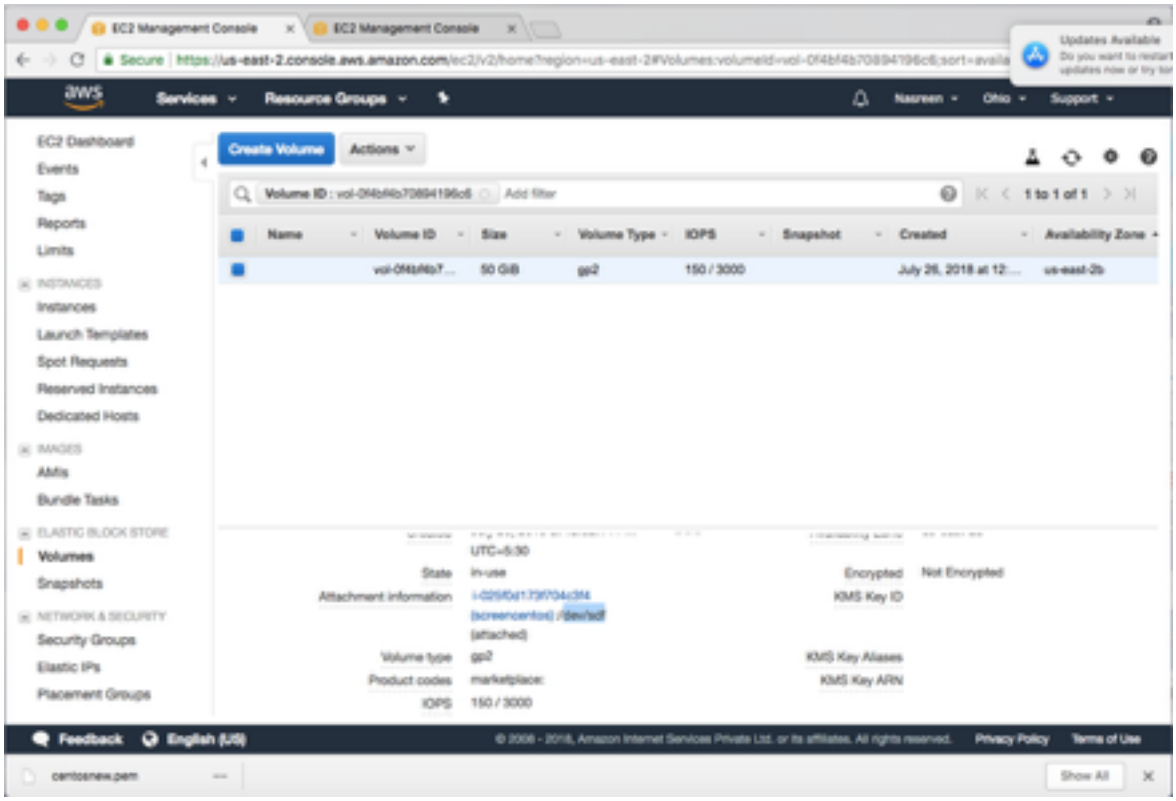
Click on **"Create volume**" menu and make changes in the requirements as needed. Here I've created a volume with the size 40G, then click on **"createvolume"** button.



Attach the volume by right clicking on the running volume. And select the instance availability zone, then the instance that needs to be attached.



Go to the attached volume and copy the location




```
$ lsblk
NAME    MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
xvda    202:0    0   8G  0 disk
`-xvda1 202:1    0   8G  0 part /
xvdf    202:80   0  50G  0 disk
```

xvdf 262.00 0 50G 0 disk

$ sudo mkfs -t ext3 /dev/xvdf

```
mke2fs 1.42.9 (28-Dec-2013)
Filesystem label=
OS type: Linux
Block size=4096 (log=2)
Fragment size=4096 (log=2)
Stride=0 blocks, Stripe width=0 blocks
3276800 inodes, 13107200 blocks
655360 blocks (5.00%) reserved for the super user
First data block=0
Maximum filesystem blocks=4294967296
400 block groups
32768 blocks per group, 32768 fragments per group
8192 inodes per group
Superblock backups stored on blocks:
32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632, 2654208,
4096000, 7962624, 11239424

Allocating group tables: done
Writing inode tables: done
Creating journal (32768 blocks): done
Writing superblocks and filesystem accounting information: done
```

$ sudo su

Create a new directory

 # mkdir /new

Now mount the directory to the drive

 # sudo mount /dev/xvdf /new

 # df -h

```
Filesystem      Size  Used Avail Use% Mounted on
/dev/xvda1      8.0G  3.4G  4.6G  43% /
devtmpfs        474M     0  474M   0% /dev
tmpfs           496M     0  496M   0% /dev/shm
tmpfs           496M   13M  483M   3% /run
tmpfs           496M     0  496M   0% /sys/fs/cgroup
tmpfs           100M     0  100M   0% /run/user/1000
/dev/xvdf        50G   52M   47G   1% /new
```

The directory is mounted succssfully

The directory is mounted successfully

```
# cp -R /var/lib/mysql /new
# cd /var/lib
```

```
#cp -R /var/lib/mysql /new

# cd /var/lib

# ls
alternatives  dhclient   machines       nfs         rpm         systemd
authconfig    games      misc           os-prober   rpm-state   tuned
chrony        gssproxy   mysql          polkit-1    rsyslog     yum
cloud         initramfs  mysql-files    postfix     selinux
dbus          logrotate  mysql-keyring  rpcbind     stateless
```

```
# mv mysql mysql-back
# cd /new
# ls
lost+found  mysql
```

```
# chown -R mysql:mysql /new/mysql/
# chown -R mysql:mysql /new/mysql
# ln -s /new/mysql/ /var/lib/
# chown -R mysql:mysql /var/lib/mysql
# cd ..
# cd /var/lib
# ls
alternatives  dhclient   machines     mysql-keyring  rpcbind    stateless
authconfig    games      misc         nfs            rpm        systemd
chrony        gssproxy   mysql        os-prober      rpm-state  tuned
cloud         initramfs  mysql-back   polkit-1       rsyslog    yum
dbus          logrotate  mysql-files  postfix        selinux
[root@ip-172-31-31-16 lib]# ll
total 8
drwxr-xr-x. 2 root    root      55 Jun  5 14:09 alternatives
drwx------. 3 root    root      18 Jun  5 14:12 authconfig
drwxr-xr-x. 2 chrony  chrony    19 Jul 26 06:33 chrony
drwxr-xr-x. 8 root    root     105 Jul 26 05:27 cloud
drwxr-xr-x. 2 root    root       6 Apr 11 07:23 dbus
drwxr-xr-x. 2 root    root      34 Jul 26 05:27 dhclient
drwxr-xr-x. 2 root    root       6 Apr 11 04:59 games
drwxr-xr-x. 4 root    root      55 Jul 26 05:27 gssproxy
drwxr-xr-x. 2 root    root       6 Apr 11 07:30 initramfs
drwxr-xr-x. 2 root    root      30 Jul 26 06:31 logrotate
drwx------. 2 root    root       6 Jun  5 14:08 machines
drwxr-xr-x. 2 root    root      37 Jul 26 05:27 misc
lrwxrwxrwx. 1 mysql   mysql     11 Jul 26 07:30 mysql -> /new/mysql/
```

```
drwxr-x--x. 6 mysql   mysql   4096 Jul 26 05:55 mysql-back
drwxr-x---. 2 mysql   mysql      6 Jul 26 05:44 mysql-files
drwxr-x---. 2 mysql   mysql      6 Mar  4 14:06 mysql-keyring
drwxr-xr-x. 5 root    root     105 Jun  5 14:09 nfs
drwxr-xr-x. 2 root    root       6 Nov  6  2016 os-prober
drwxr-x---. 3 root    polkitd   28 Jun  5 14:08 polkit-1
drwx------. 2 postfix root      25 Jul 26 05:27 postfix
drwx------. 2 rpc     rpc        6 Apr 11 05:13 rpcbind
drwxr-xr-x. 2 root    root    4096 Jul 26 05:35 rpm
drwxr-xr-x. 2 root    root       6 Apr 11 04:59 rpm-state
drwx------. 2 root    root      29 Jul 26 07:17 rsyslog
drwxr-xr-x. 2 root    root       6 Apr 11 16:10 selinux
drwxr-xr-x. 4 root    root      35 Jun  5 14:08 stateless
drwxr-xr-x. 4 root    root      56 Jun  5 14:08 systemd
drwxr-xr-x. 2 root    root       6 Apr 11 02:57 tuned
drwxr-xr-x. 6 root    root      80 Jul 26 05:43 yum
```

 # service mysqld stop
Redirecting to /bin/systemctl stop mysqld.service

In centOS 7 the selinux enforce has to disabled to avoid server start issues

 # vi /etc/sysconfig/selinux

```
# This file controls the state of SELinux on the system.
# SELINUX= can take one of these three values:
#     enforcing - SELinux security policy is enforced.
#     permissive - SELinux prints warnings instead of enforcing.
#     disabled - No SELinux policy is loaded.
SELINUX=disabled
# SELINUXTYPE= can take one of three two values:
#     targeted - Targeted processes are protected,
#     minimum - Modification of targeted policy. Only selected processes are pro
tected.
#     mls - Multi Level Security protection.
SELINUXTYPE=targeted


~
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"/etc/sysconfig/selinux" 14L, 545C
```

The give command as follows:

 # setenforce 0

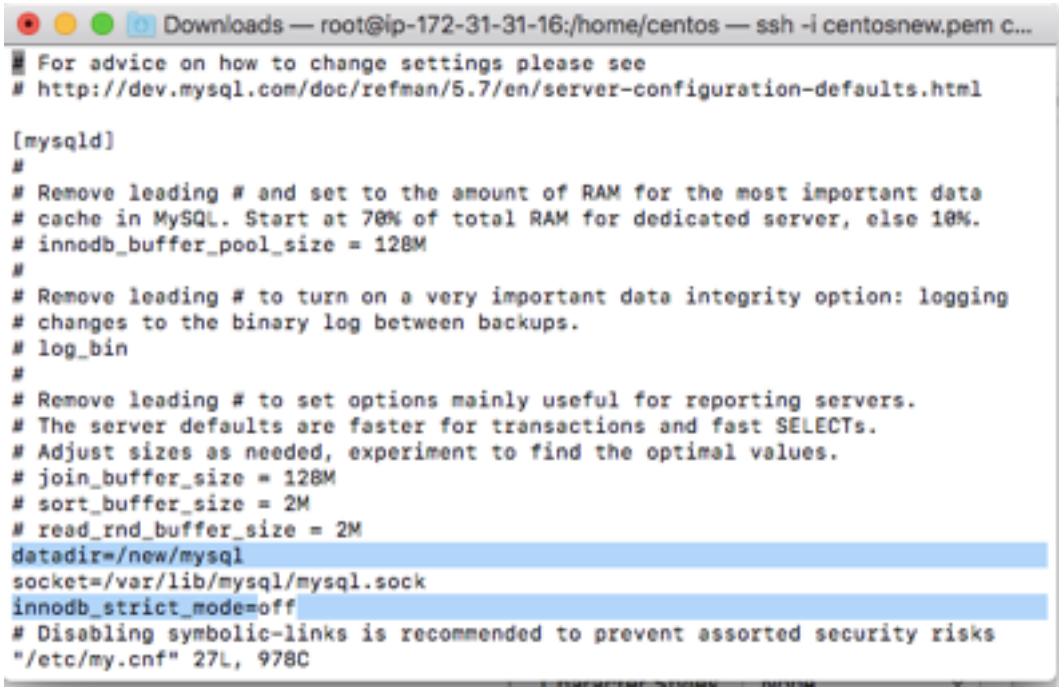
 # sestatus

SELinux status: enabled

```
SELinuxfs mount:                /sys/fs/selinux
SELinux root directory:         /etc/selinux
Loaded policy name:             targeted
Current mode:                   permissive
Mode from config file:          disabled
Policy MLS status:              enabled
Policy deny_unknown status:     allowed
Max kernel policy version:      31
```

Then make changes in mysql config to switchoff the strict mode and change the linked datadirectory in it.

 # vi /etc/my.cnf



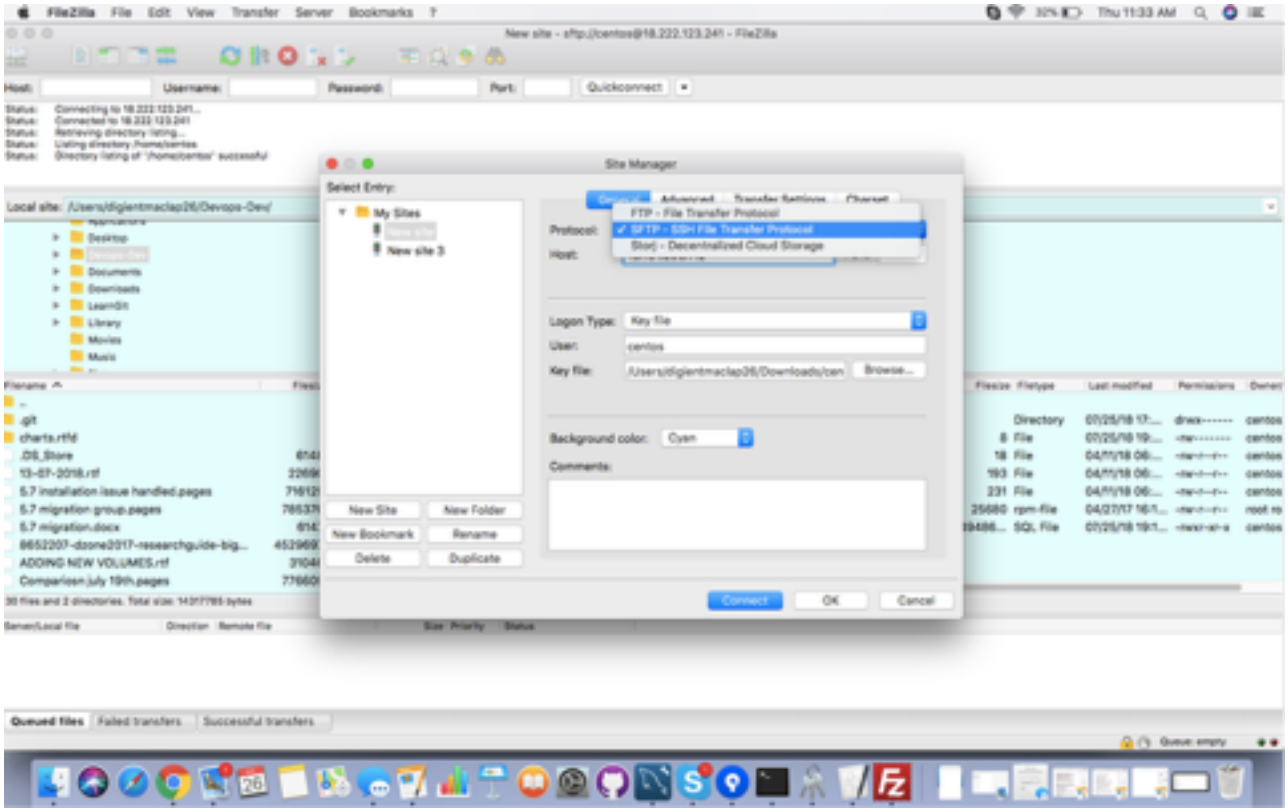
 # systemctl restart mysqld.service

 # systemctl status mysqld.service

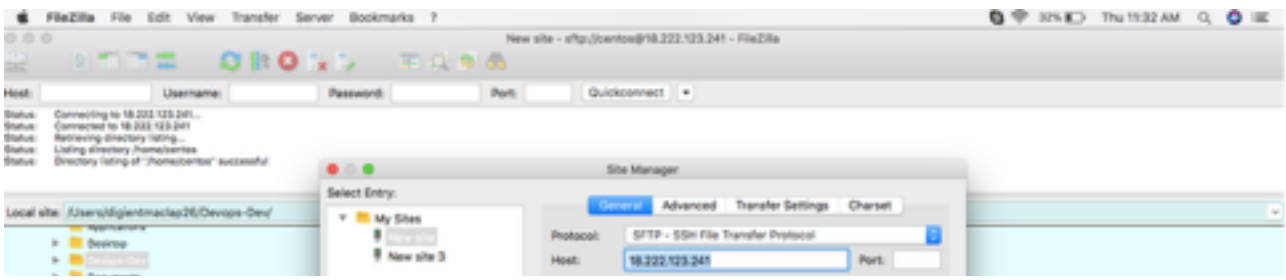
```
● mysqld.service - MySQL Server
   Loaded: loaded (/usr/lib/systemd/system/mysqld.service; enabled; vendor
preset: disabled)
   Active: active (running) since Thu 2018-07-26 07:37:19 UTC; 22s ago
     Docs: man:mysqld(8)
           http://dev.mysql.com/doc/refman/en/using-systemd.html
  Process: 12017 ExecStart=/usr/sbin/mysqld --daemonize --pid-
file=/var/run/mysqld/mysqld.pid $MYSQLD_OPTS (code=exited, status=
0/SUCCESS)
```

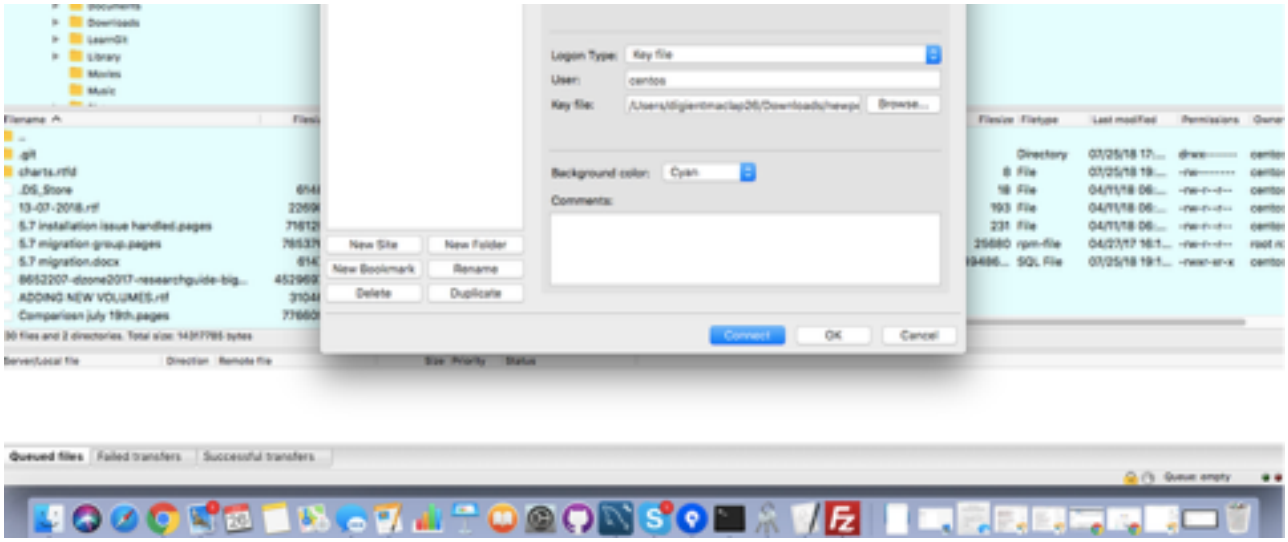
```
  Process: 11996 ExecStartPre=/usr/bin/mysqld_pre_systemd (code=exited,
status=0/SUCCESS)
 Main PID: 12020 (mysqld)
   CGroup: /system.slice/mysqld.service
           └─12020 /usr/sbin/mysqld --daemonize --pid-
file=/var/run/mysqld/my...

Jul 26 07:37:17 ip-172-31-31-16.us-east-2.compute.internal systemd[1]:
Starti...
Jul 26 07:37:19 ip-172-31-31-16.us-east-2.compute.internal systemd[1]:
Starte...
Hint: Some lines were ellipsized, use -l to show in full.
```

Now upload the db into the server in file zilla to import

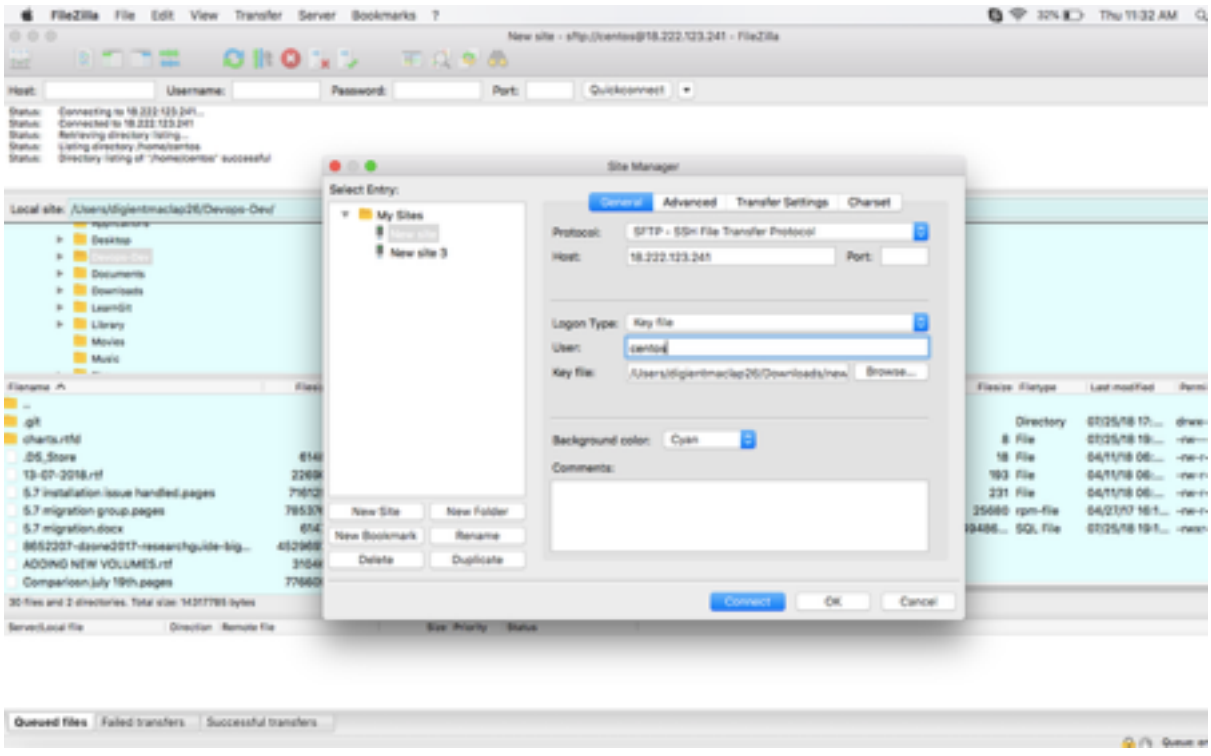


Connect the host

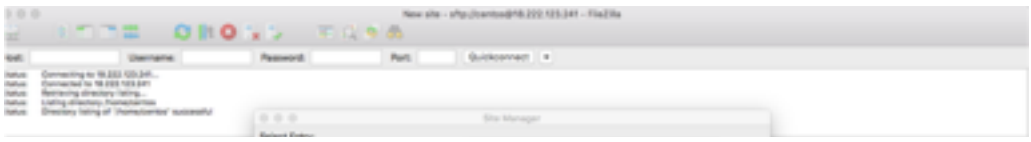


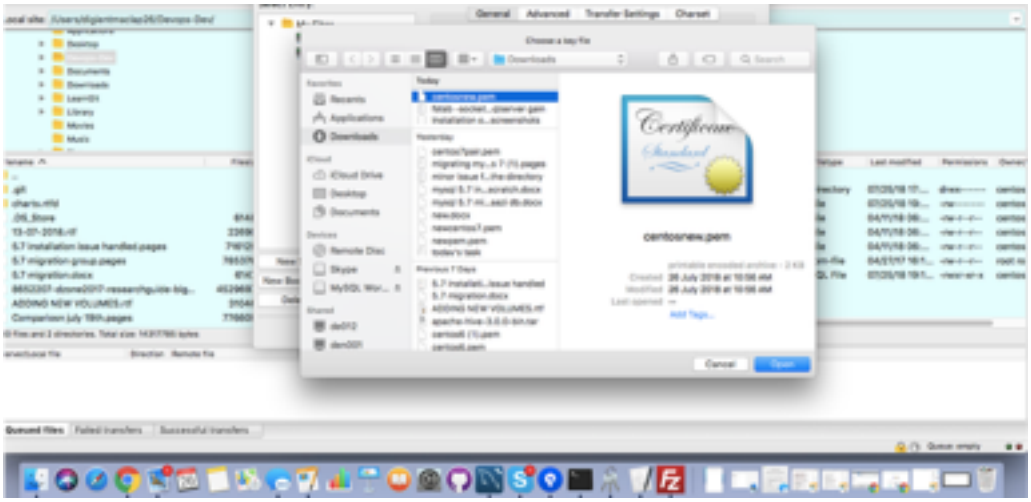


Make the following changes

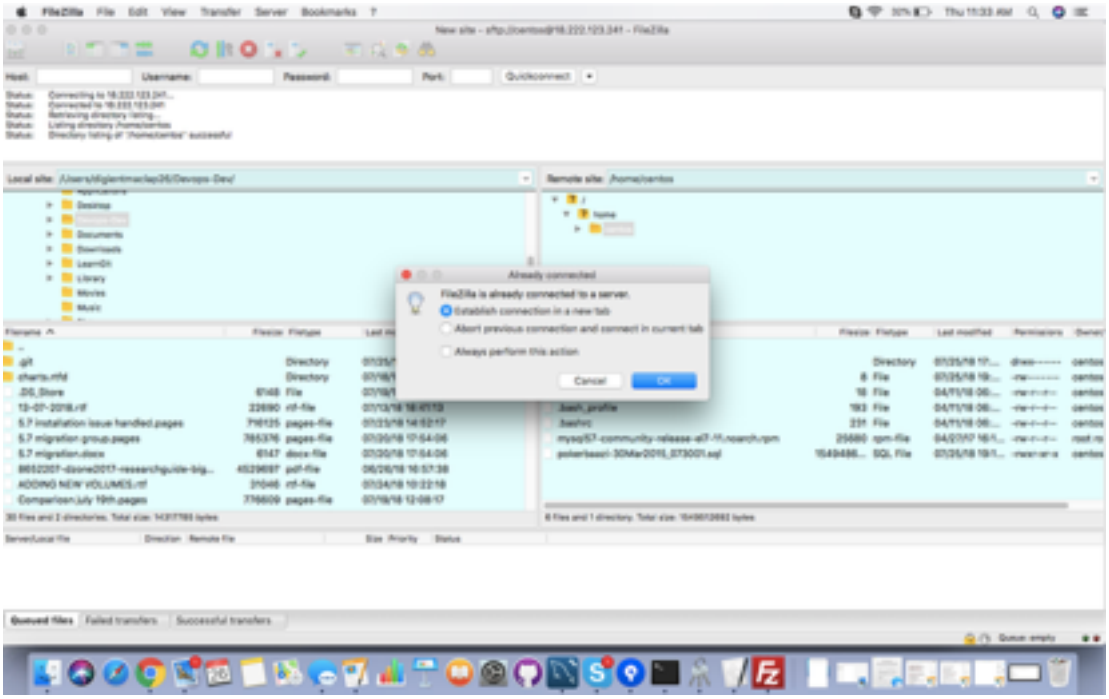


Attach the accesskey- pem file.

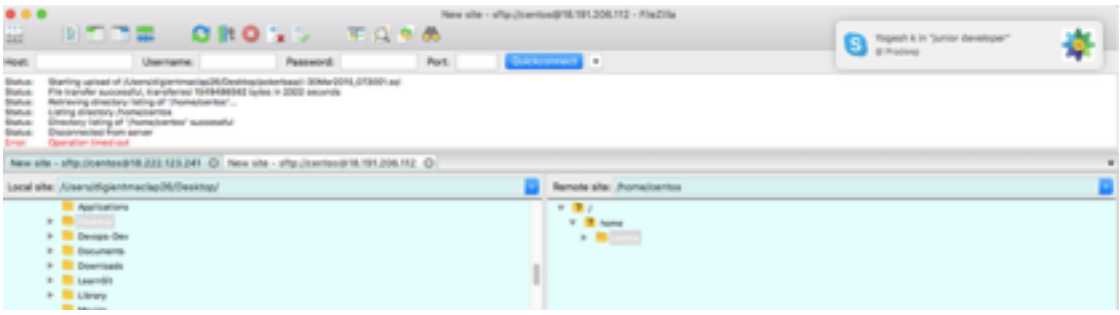


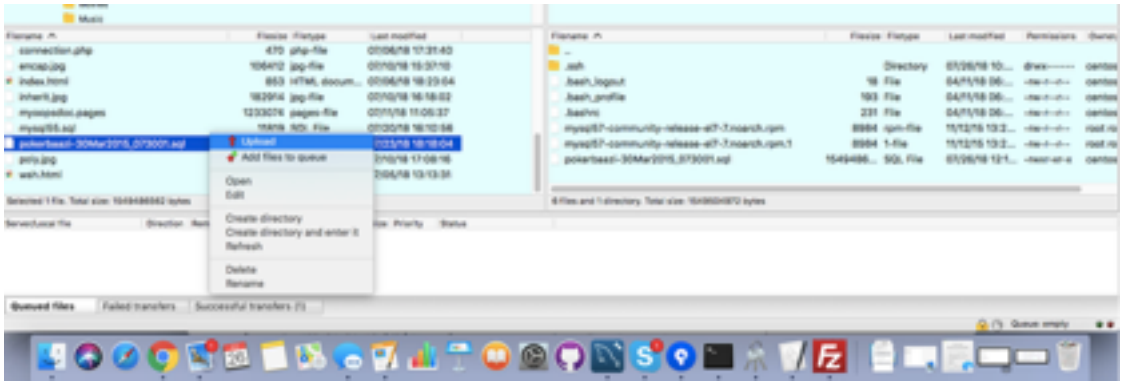


Click on Ok button



Upload the db from desktop- where you have stored it





After uploading,
Migrate the db to the drive using the following command

```
# mysql –uroot –p newmig < /home/centos/pokerbaazi–30Mar2015_073001.sql

# exit

$ mysql –uroot –p
```

Finally view the migrated db and its table in mysql