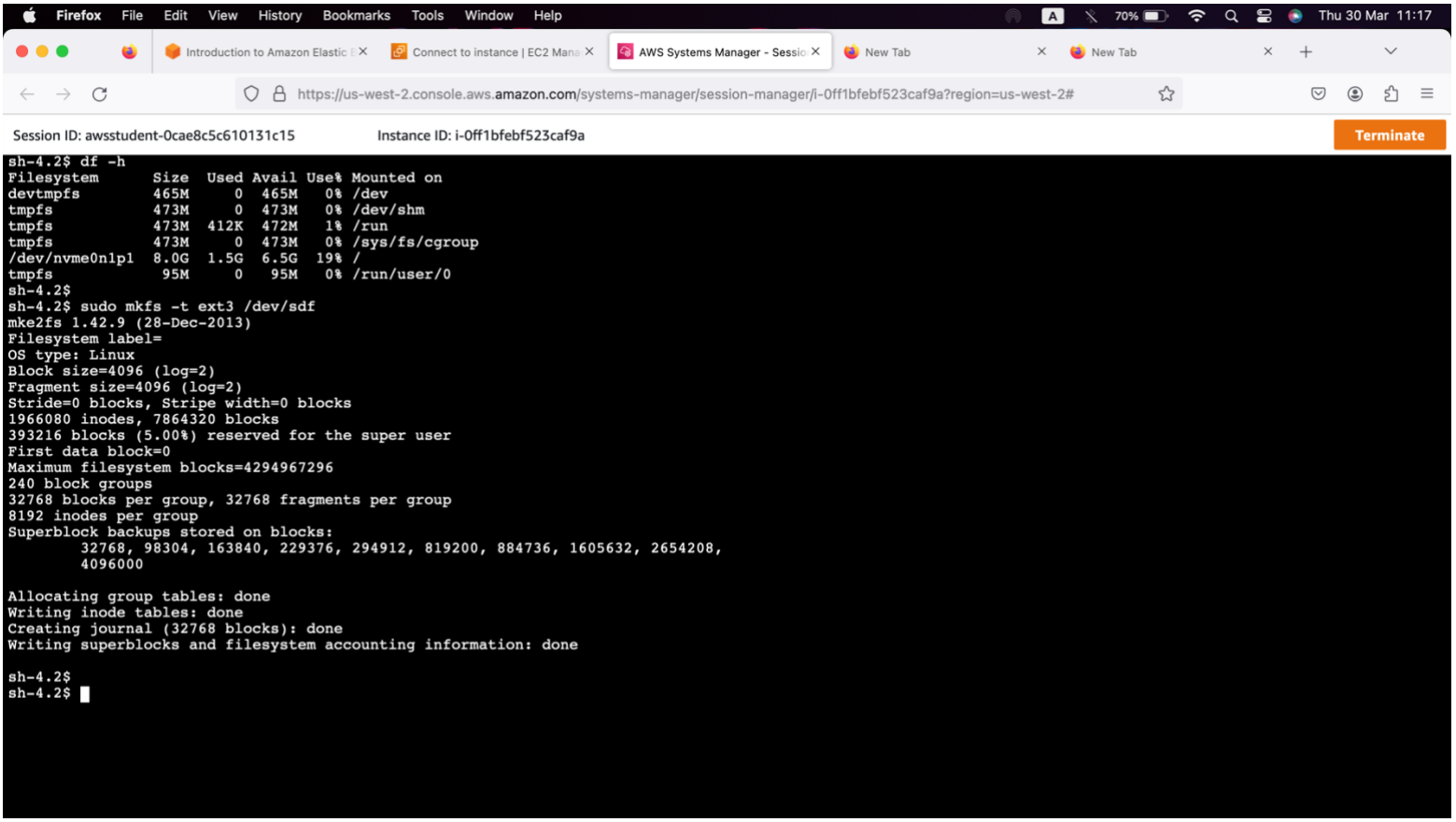
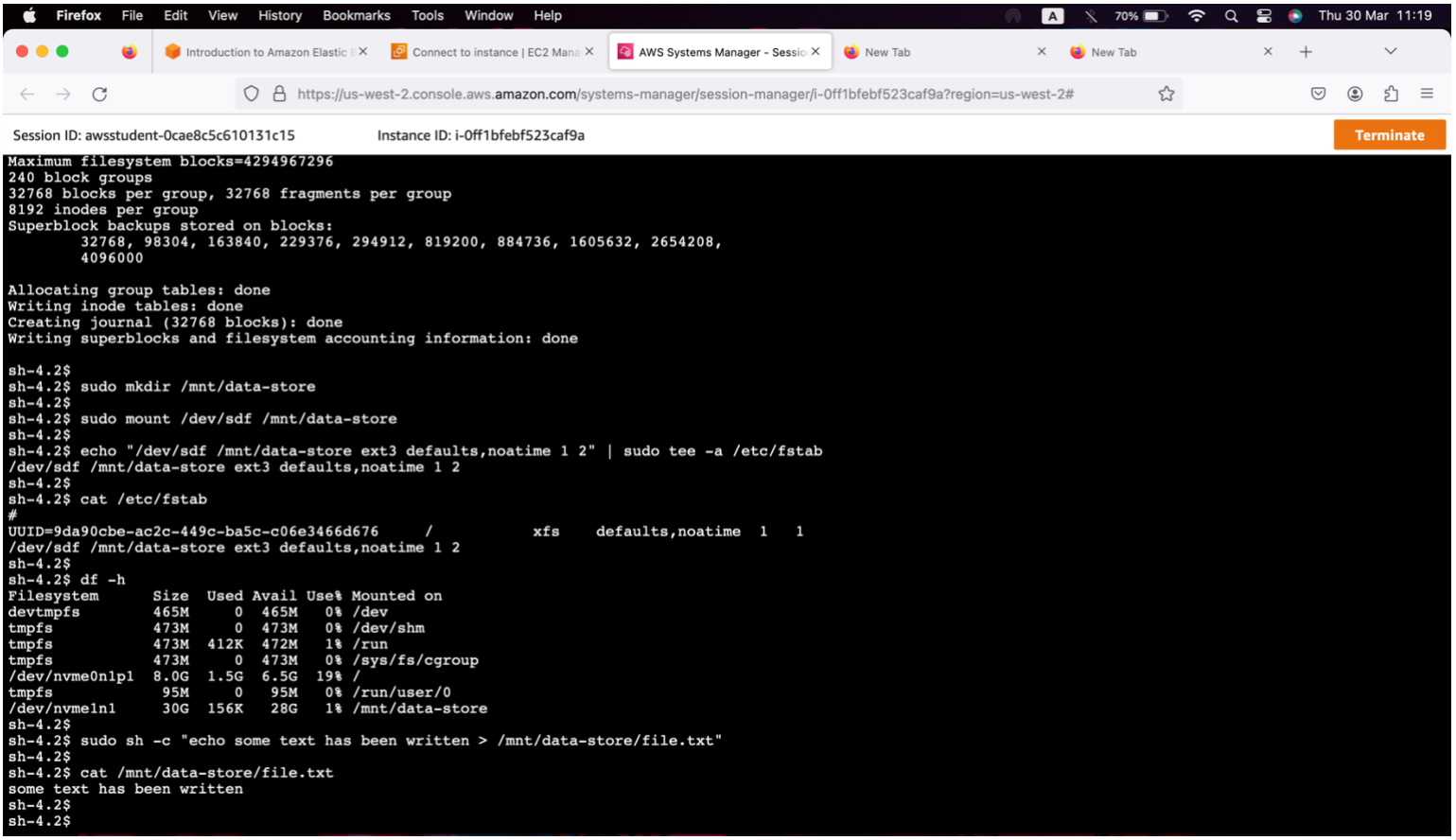
SFA Homework #15
Elizabet Ivanova

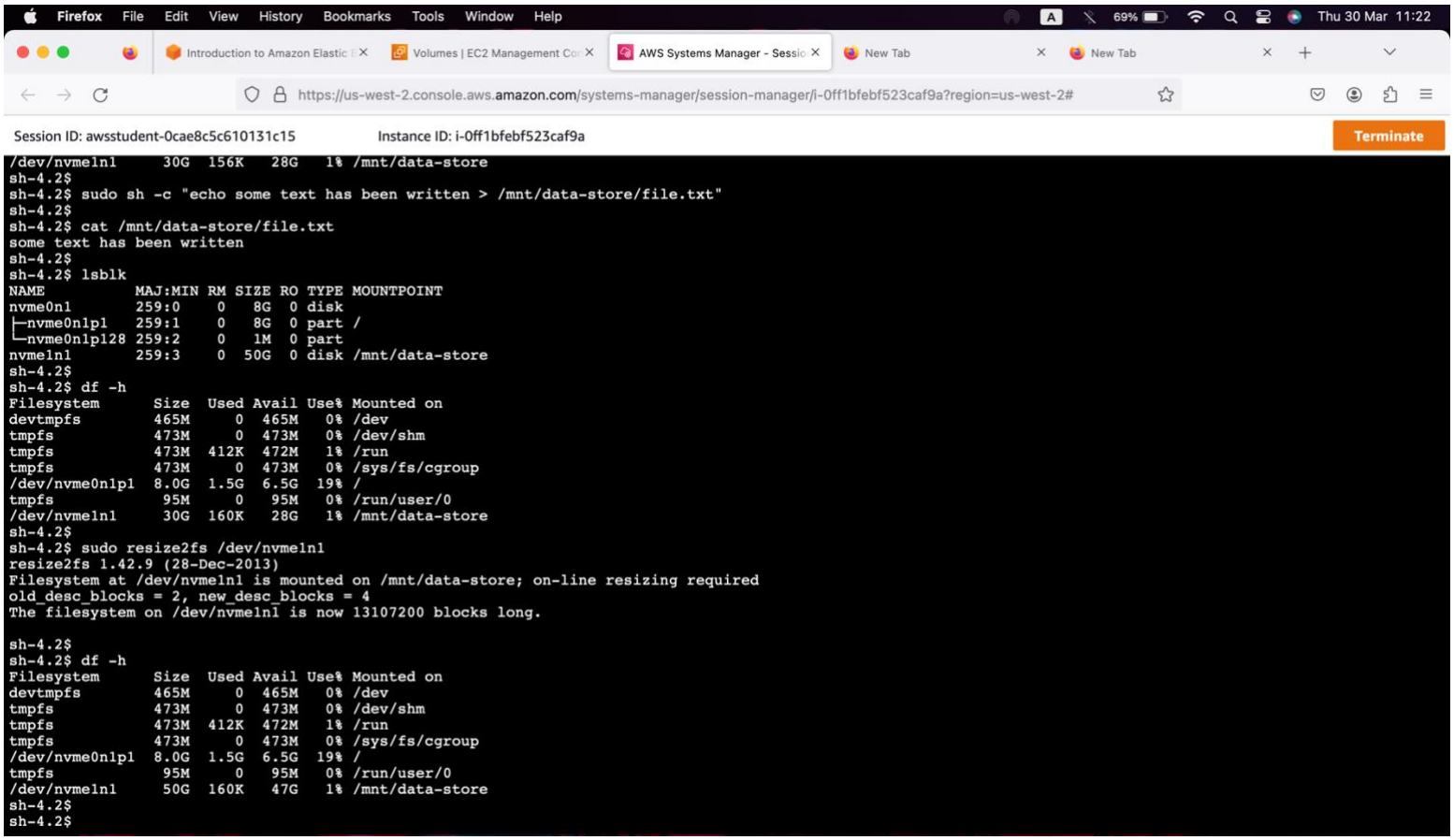
AWS Lab: Introduction to Amazon Elastic Block Store (Amazon EBS)

Creating and configuring a file system on an attached EBS volume:

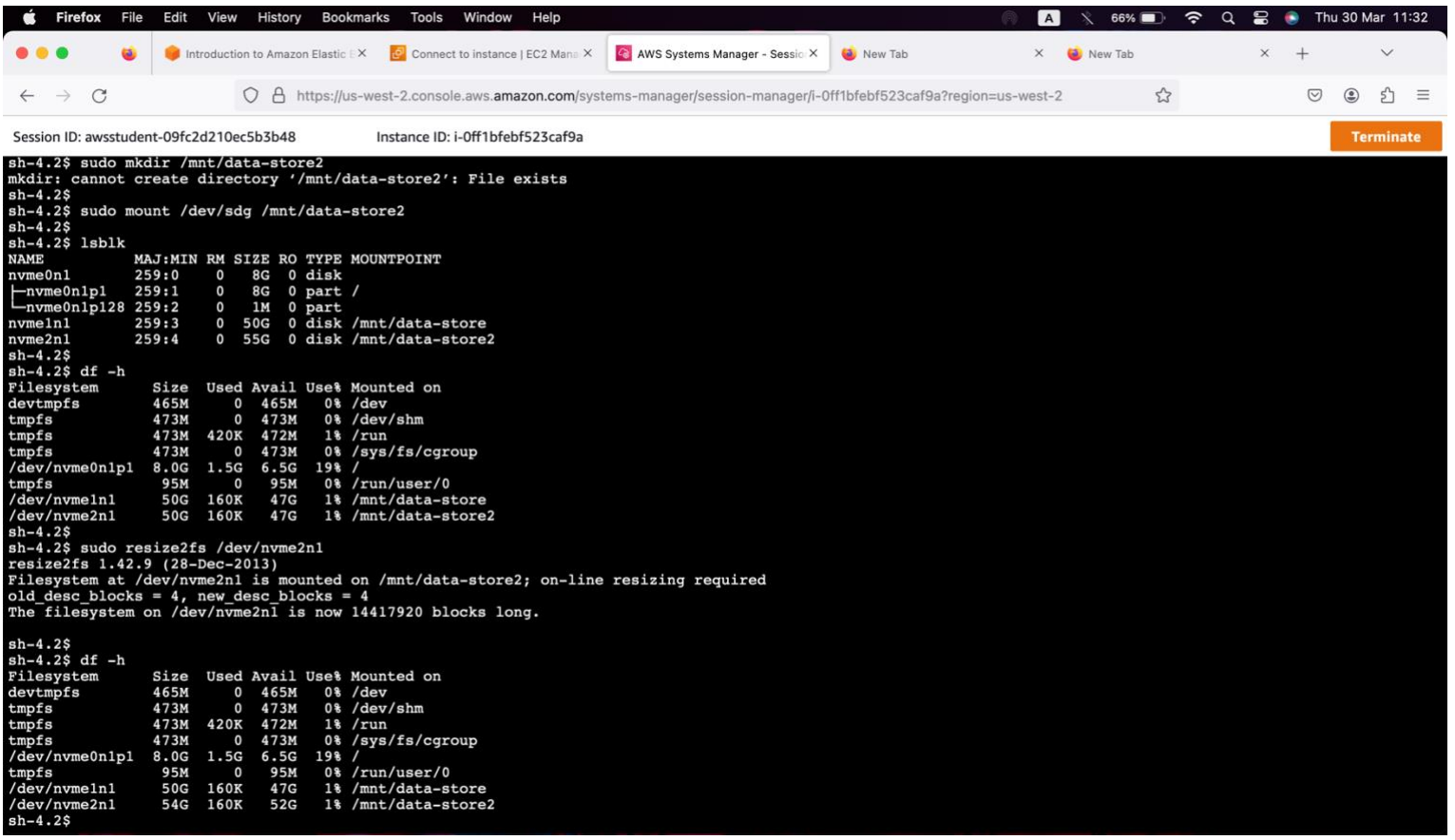


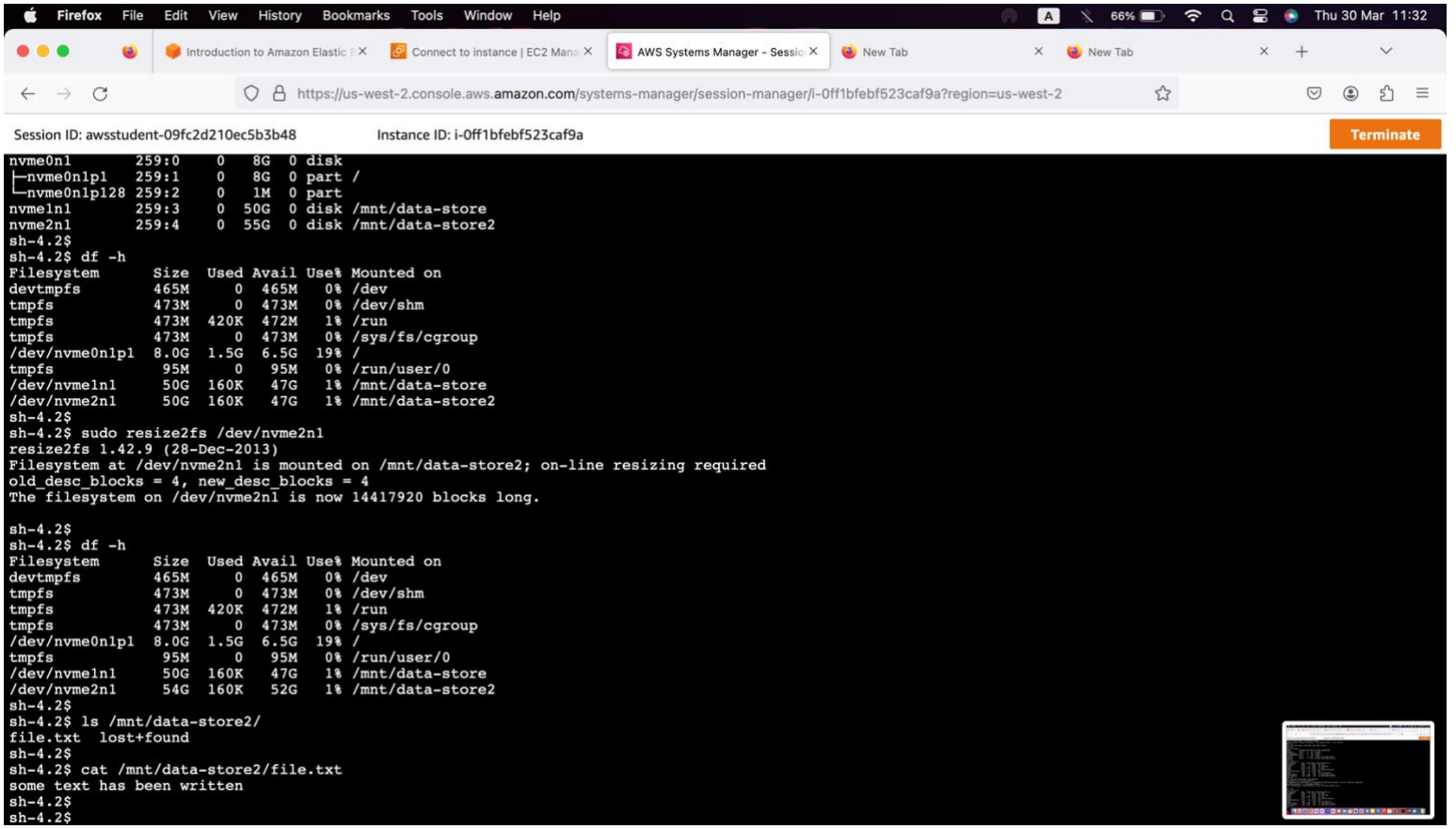

Firefox File Edit View History Bookmarks Tools Window Help
Thu 30 Mar 11:19
Introduction to Amazon Elastic
Connect to instance | EC2 Mana
AWS Systems Manager - Sessio
New Tab
New Tab
https://us-west-2.console.aws.amazon.com/systems-manager/session-manager/i-0ff1bfebf523caf9a?region=us-west-2#
Session ID: awsstudent-0cae8c5c610131c15
Instance ID: i-0ff1bfebf523caf9a
Terminate
Maximum filesystem blocks=4294967296
240 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
Allocating group tables: done
Writing inode tables: done
Creating journal (32768 blocks): done
Writing superblocks and filesystem accounting information: done
sh-4.2$
sh-4.2$ sudo mkdir /mnt/data-store
sh-4.2$
sh-4.2$ sudo mount /dev/sdf /mnt/data-store
sh-4.2$
sh-4.2$ echo "/dev/sdf /mnt/data-store ext3 defaults,noatime 1 2" | sudo tee -a /etc/fstab
/dev/sdf /mnt/data-store ext3 defaults,noatime 1 2
sh-4.2$
sh-4.2$ cat /etc/fstab
#
UUID=9da90cbe-ac2c-449c-ba5c-c06e3466d676 / xfs defaults,noatime 1 1
/dev/sdf /mnt/data-store ext3 defaults,noatime 1 2
sh-4.2$
sh-4.2$ df -h
Filesystem Size Used Avail Use% Mounted on
devtmpfs 465M 0 465M 0% /dev
tmpfs 473M 0 473M 0% /dev/shm
tmpfs 473M 412K 472M 1% /run
tmpfs 473M 0 473M 0% /sys/fs/cgroup
/dev/nvme0n1p1 8.0G 1.5G 6.5G 19% /
tmpfs 95M 0 95M 0% /run/user/0
/dev/nvme1n1 30G 156K 28G 1% /mnt/data-store
sh-4.2$
sh-4.2$ sudo sh -c "echo some text has been written > /mnt/data-store/file.txt"
sh-4.2$
sh-4.2$ cat /mnt/data-store/file.txt
some text has been written
sh-4.2$
sh-4.2$

Expanding the volume of the file system:



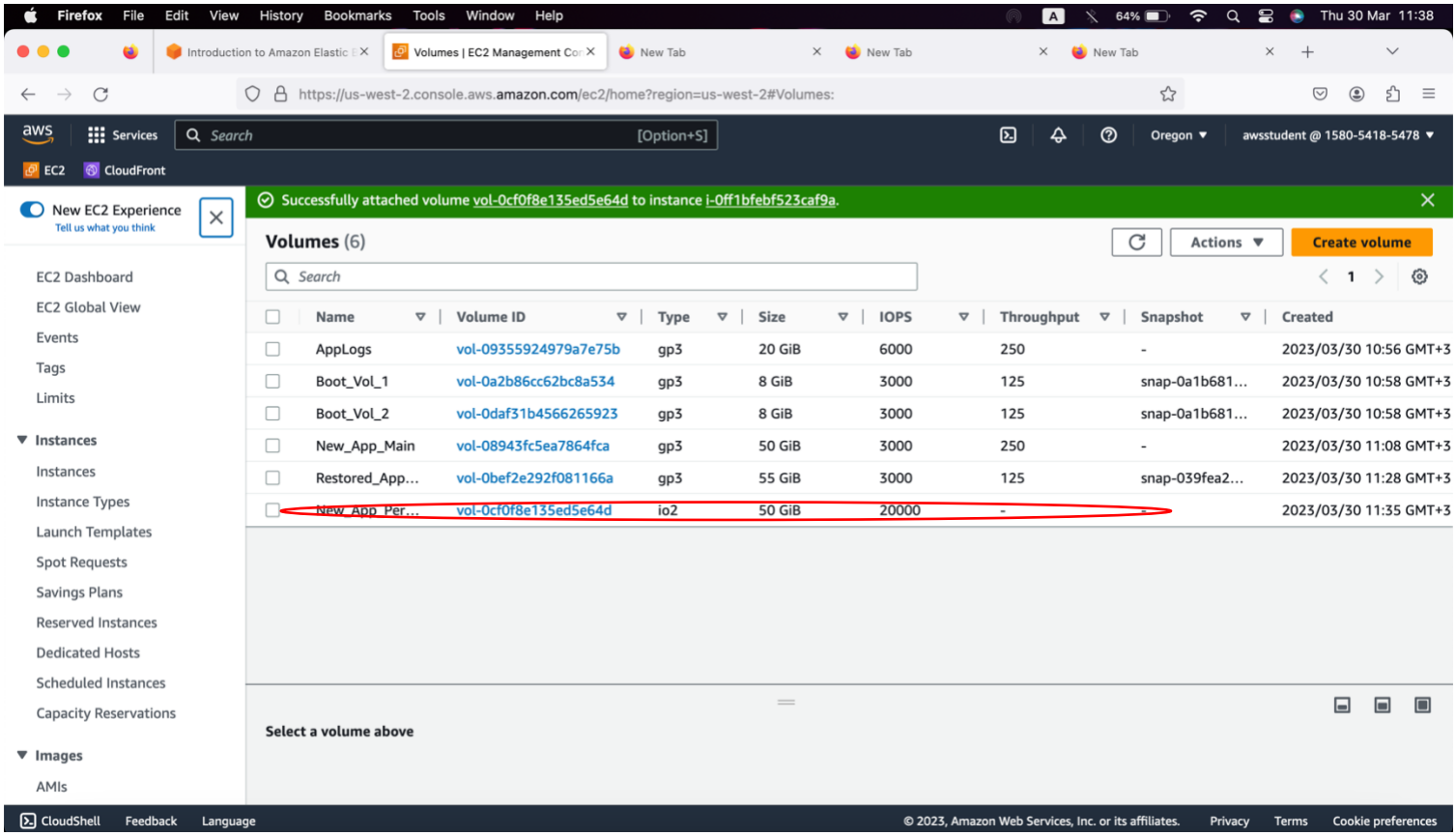
Restoring an EBS volume from an existing snapshot (mounting the new volume, extending the new file system, verification):



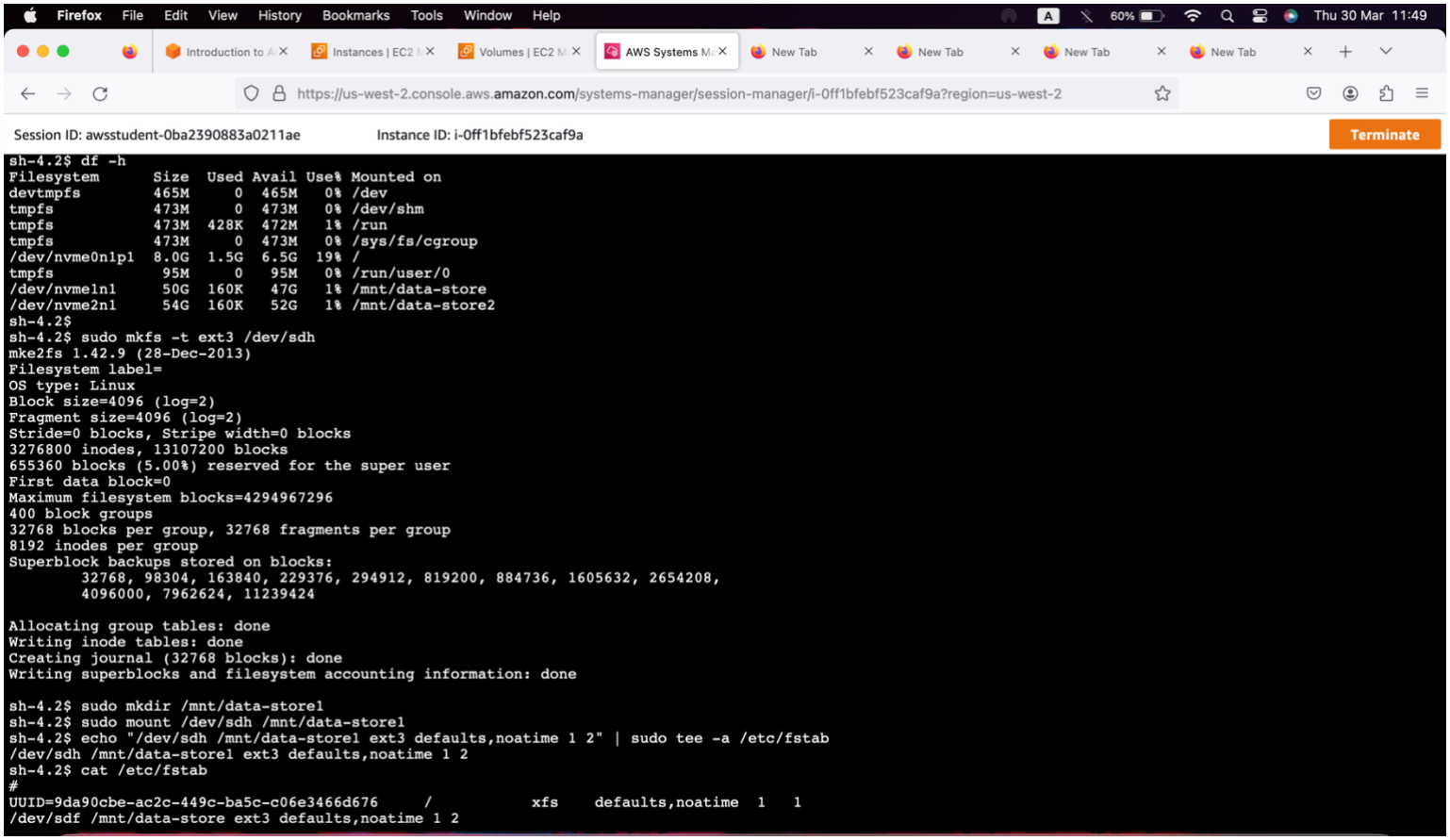

Firefox File Edit View History Bookmarks Tools Window Help
Thu 30 Mar 11:32
Introduction to Amazon Elastic
Connect to instance | EC2 Mana
AWS Systems Manager - Sessio
New Tab
New Tab
https://us-west-2.console.aws.amazon.com/systems-manager/session-manager/i-0ff1bfebf523caf9a?region=us-west-2
Session ID: awsstudent-09fc2d210ec5b3b48
Instance ID: i-0ff1bfebf523caf9a
Terminate
nvme0n1 259:0 0 8G 0 disk
├─nvme0n1p1 259:1 0 8G 0 part /
└─nvme0n1p128 259:2 0 1M 0 part
nvme1n1 259:3 0 50G 0 disk /mnt/data-store
nvme2n1 259:4 0 55G 0 disk /mnt/data-store2
sh-4.2$
sh-4.2$ df -h
Filesystem Size Used Avail Use% Mounted on
devtmpfs 465M 0 465M 0% /dev
tmpfs 473M 0 473M 0% /dev/shm
tmpfs 473M 420K 472M 1% /run
tmpfs 473M 0 473M 0% /sys/fs/cgroup
/dev/nvme0n1p1 8.0G 1.5G 6.5G 19% /
tmpfs 95M 0 95M 0% /run/user/0
/dev/nvme1n1 50G 160K 47G 1% /mnt/data-store
/dev/nvme2n1 50G 160K 47G 1% /mnt/data-store2
sh-4.2$
sh-4.2$ sudo resize2fs /dev/nvme2n1
resize2fs 1.42.9 (28-Dec-2013)
Filesystem at /dev/nvme2n1 is mounted on /mnt/data-store2; on-line resizing required
old_desc_blocks = 4, new_desc_blocks = 4
The filesystem on /dev/nvme2n1 is now 14417920 blocks long.
sh-4.2$
sh-4.2$ df -h
Filesystem Size Used Avail Use% Mounted on
devtmpfs 465M 0 465M 0% /dev
tmpfs 473M 0 473M 0% /dev/shm
tmpfs 473M 420K 472M 1% /run
tmpfs 473M 0 473M 0% /sys/fs/cgroup
/dev/nvme0n1p1 8.0G 1.5G 6.5G 19% /
tmpfs 95M 0 95M 0% /run/user/0
/dev/nvme1n1 50G 160K 47G 1% /mnt/data-store
/dev/nvme2n1 54G 160K 52G 1% /mnt/data-store2
sh-4.2$
sh-4.2$ ls /mnt/data-store2/
file.txt lost+found
sh-4.2$
sh-4.2$ cat /mnt/data-store2/file.txt
some text has been written
sh-4.2$
sh-4.2$

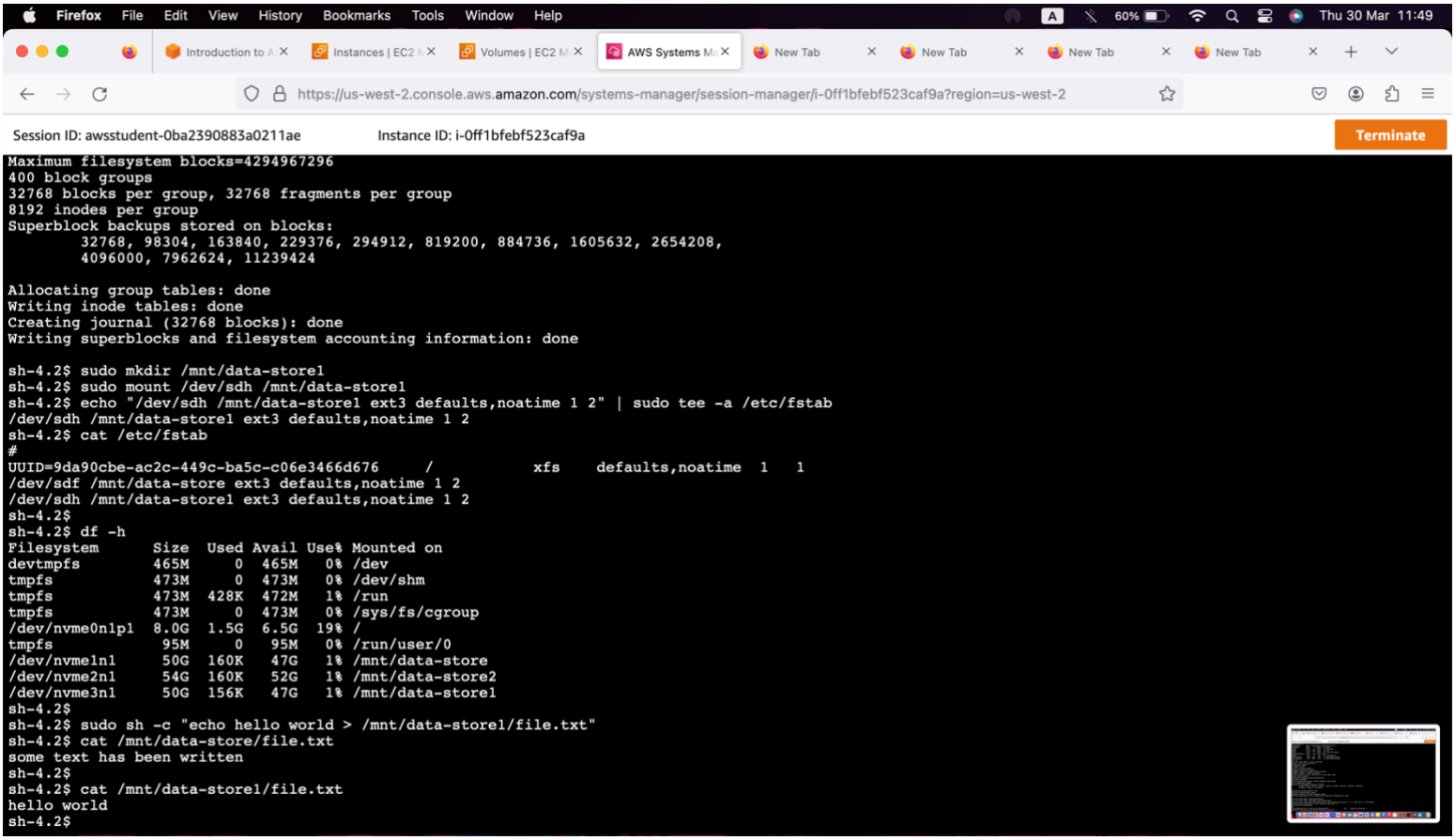
Challenge task

Creating a new EBS volume called New_App_Performance:



After attaching the volume to the New_App instance, I mounted the volume to the instance and created a file system on it with a file.txt:





***The output first produced “some text has been written” because I did not type the location correctly, so it pointed to the file from the previous tasks. Then, I used the correct file location and the correct output was printed out.

Snapshot of the New_App_Performace: completed.