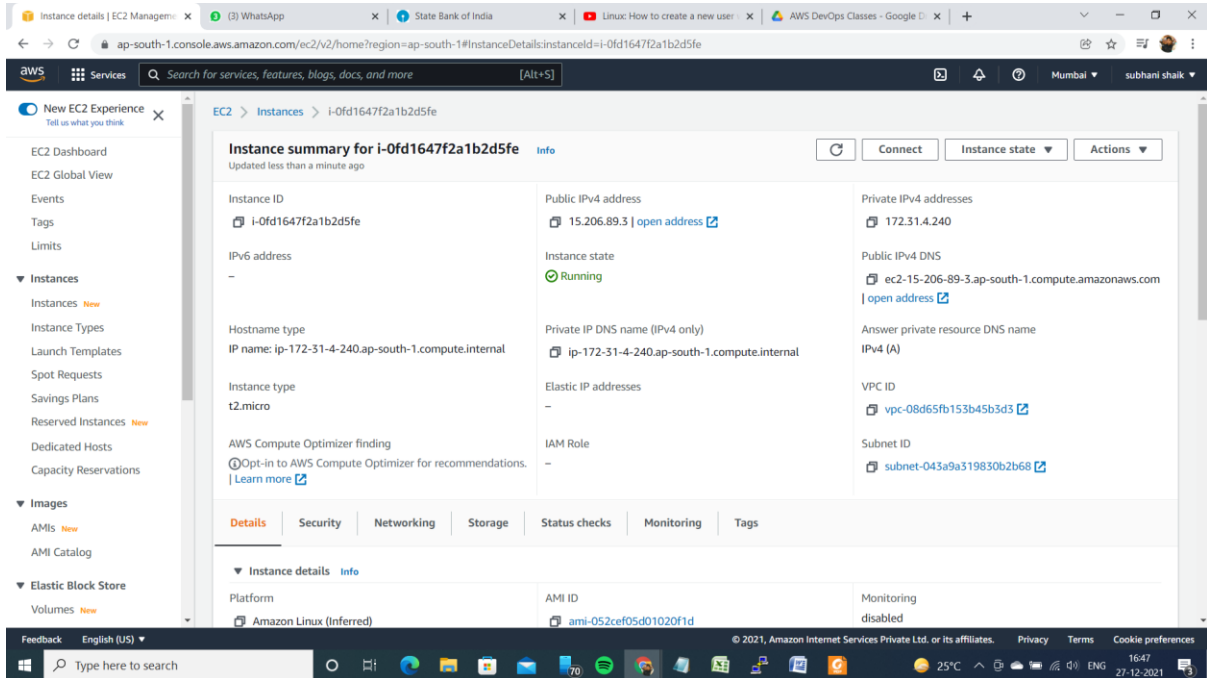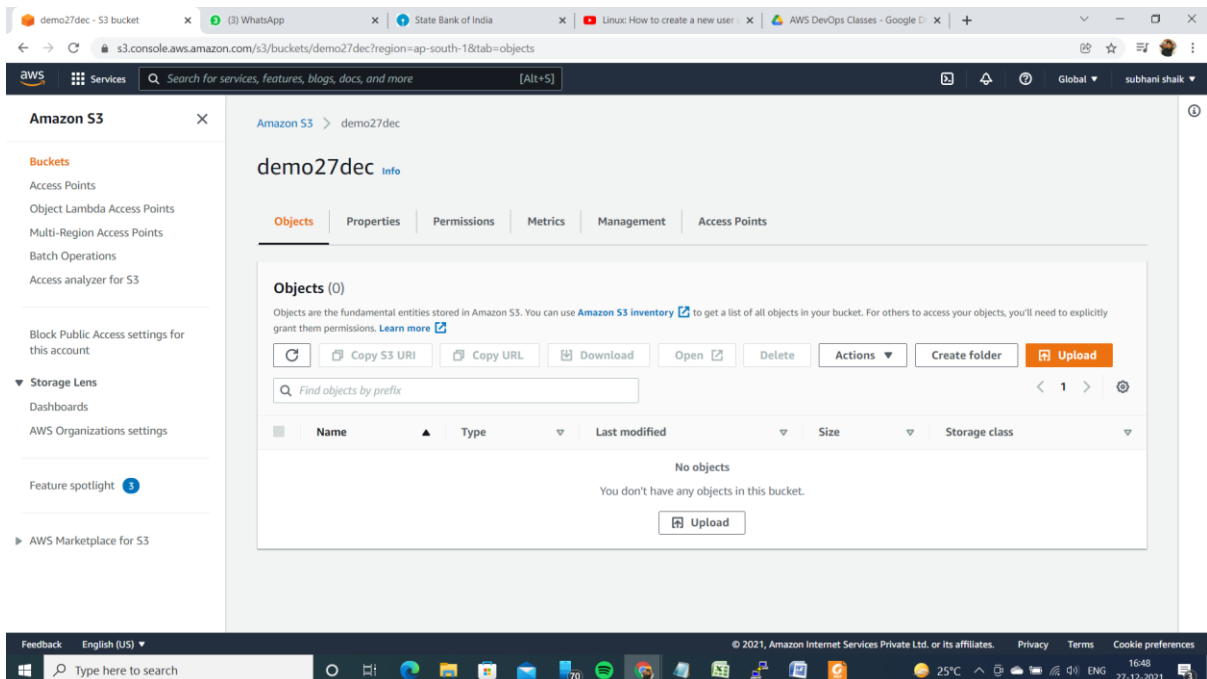*******HOW TO MOUNT S3 BUCKET ON EC2-INSTANCE*******
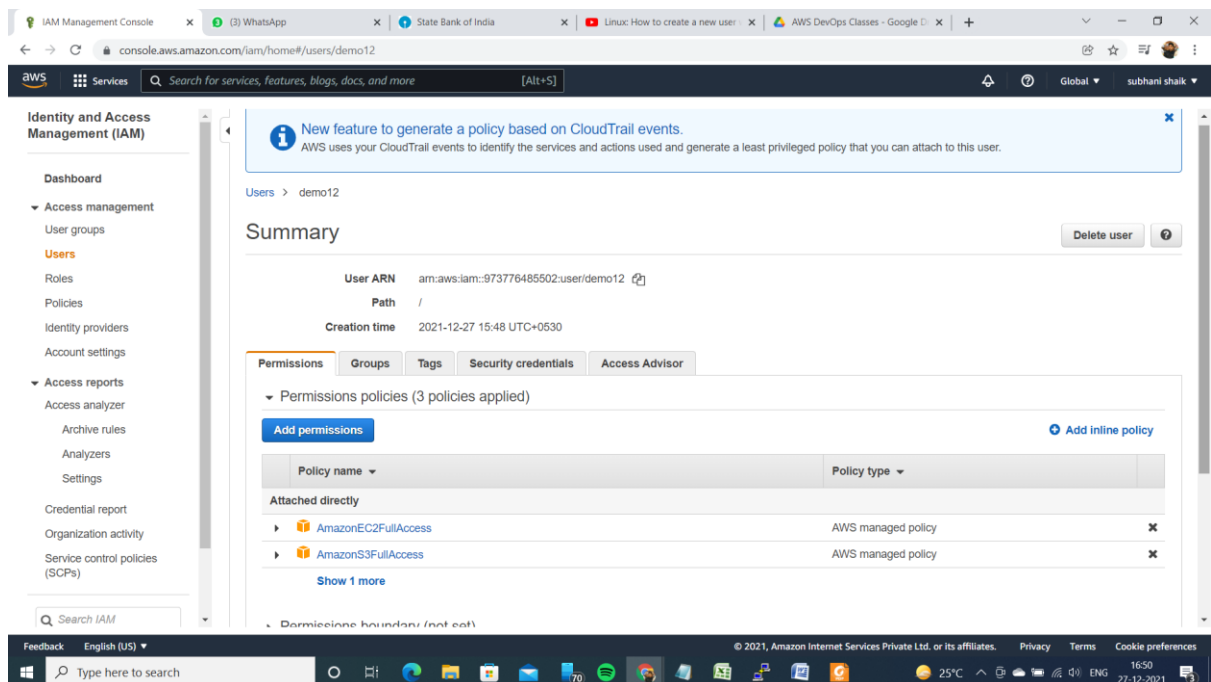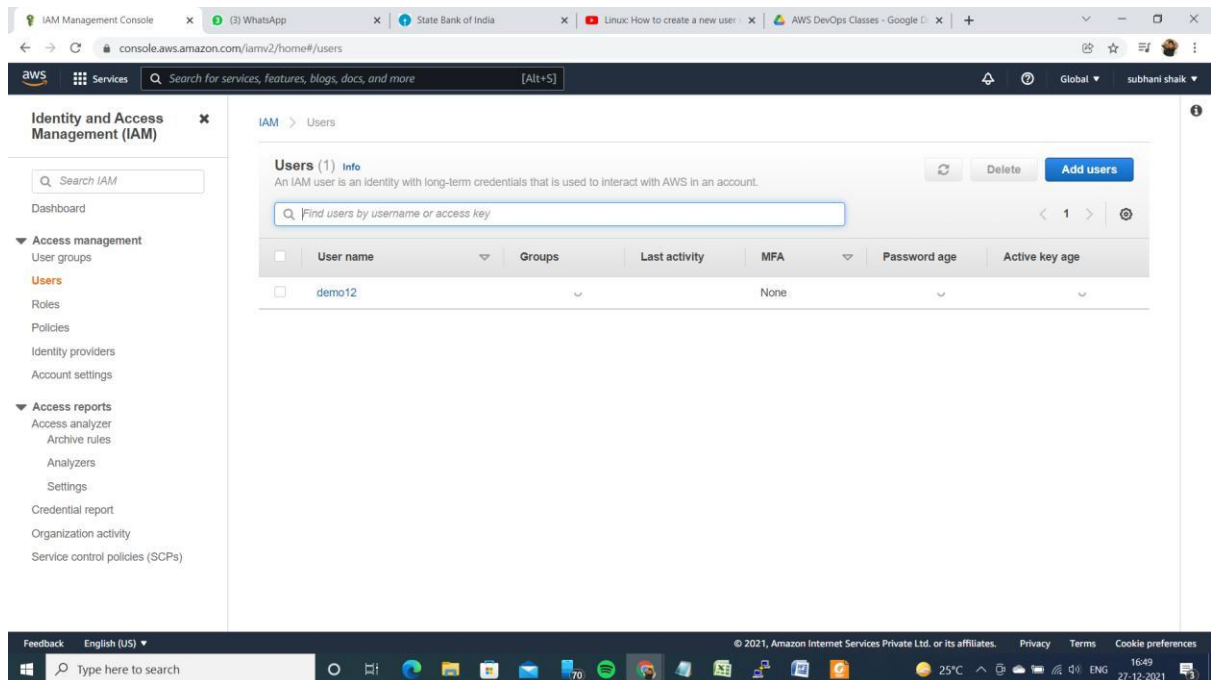
Step1: Login to AWS Console management and then navigate to EC2 Dashboard and Then Launch New Instance.

Step2: Now Move to s3 Dashboard and create a new s3Bucket.

Step3: Next move to IAM Dashboard and create a USER under that attach new permissions and click on create user.

Note: Give S3full access & Ec2 Full access-[here download CSV file means user credentials]

Step4: Login to server and Run the command [YUM UPDATE]

Step5: Next install all dependencies by run this command
[sudo yum install automake fuse fuse-devel gcc-c++ git libcurl-devel libxml2-devel make
openssldevel]

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Step6: Download s3fs code from git (or) clone s3fs source code from git.
By git clone https://github.com/s3fs-fuse/s3fs-fuse.git

```
[root@ip-172-31-4-240 ~]# git clone https://github.com/s3fs-fuse/s3fs-fuse.git
Cloning into 's3fs-fuse'...
remote: Enumerating objects: 7933, done.
remote: Counting objects: 100% (720/720), done.
remote: Compressing objects: 100% (369/369), done.
remote: Total 7933 (delta 502), reused 493 (delta 346), pack-reused 7213
Receiving objects: 100% (7933/7933), 5.07 MiB | 21.11 MiB/s, done.
Resolving deltas: 100% (5572/5572), done.
[root@ip-172-31-4-240 ~]# ls
s3fs-fuse
```

Step7: Now Change the source code directory and Complie, install the code using below commands
Run this command [cd s3fs-fuse] & Next run this command [./autogen.sh]

```
[root@ip-172-31-4-240 ~]# cd s3fs-fuse
[root@ip-172-31-4-240 s3fs-fuse]# ./autogen.sh
--- Make commit hash file -------
--- Finished commit hash file ---
--- Start autotools ------------
configure.ac:26: installing './config.guess'
configure.ac:26: installing './config.sub'
configure.ac:27: installing './install-sh'
configure.ac:27: installing './missing'
src/Makefile.am: installing './depcomp'
parallel-tests: installing './test-driver'
--- Finished autotools ----------
```

Next run this command [./configure --prefix=/usr –with openssl]

```
[root@ip-172-31-4-240 s3fs-fuse]# ./configure --prefix=/usr --with-opensslmake
configure: WARNING: unrecognized options: --with-opensslmake
checking build system type... x86_64-unknown-linux-gnu
checking host system type... x86_64-unknown-linux-gnu
checking target system type... x86_64-unknown-linux-gnu
checking for a BSD-compatible install... /bin/install -c
checking whether build environment is sane... yes
checking for a thread-safe mkdir -p... /bin/mkdir -p
```

Next run this command [sudo make install]

```
checking for DEPS... yes
checking for malloc_trim... yes
checking for library containing clock_gettime... none required
checking for clock_gettime... yes
checking pthread mutex recursive... PTHREAD_MUTEX_RECURSIVE
checking checking CURLOPT_TCP_KEEPALIVE... yes
checking checking CURLOPT_SSL_ENABLE_ALPN... yes
checking checking CURLOPT_KEEP_SENDING_ON_ERROR... yes
checking for git... yes
checking github short commit hash... 5de92e9
checking that generated files are newer than configure... done
configure: creating ./config.status
config.status: creating Makefile
config.status: creating src/Makefile
config.status: creating test/Makefile
config.status: creating doc/Makefile
config.status: creating config.h
config.status: executing depfiles commands
configure: WARNING: unrecognized options: --with-opensslmake
```

Step8: To check where s3 command is placed in O.S Run this command [which s3]

```
[root@ip-10-0-0-79 s3fs-fuse]#  which s3fs
/bin/s3fs
```

Step9: next run this command [vim /etc/passwd-s3fs]

```
[root@ip-172-31-4-240 s3fs-fuse]# vim /etc/passwd-s3fs
[root@ip-172-31-4-240 s3fs-fuse]# sudo chmod 640 /etc/passwd-s3fs
[root@ip-172-31-4-240 s3fs-fuse]# mkdir /mys3bucket
```

*In that edit means add user credentials [Accesses key: & secret Key:]-[copy user credentials from IAM CSV download file permissions make paste it in Vim and save it after paste like this press escape shift+:wq!]

*change permissions of user by run command [sudo chmod 640 /etc/passwd-s3fs] *create a directory what you want as of now my requirement purpose make mys3bucket

Step10: Mount the bucket s3fs by using the below command

s3fs demo27dec -o use_cache=/tmp -o allow_other –o uid=1001 -o mp_umask=002 -o multireq_max=5 /mys3bucket

*after mounting run the command to check the file system mount or not [df -h]

```
[root@ip-172-31-4-240 s3fs-fuse]# s3fs demo27dec -o use_cache=temp -o allow_other -o uid=1001 -o mp_umask=002 -o multireq_max=5 /mys3bucket
[root@ip-172-31-4-240 s3fs-fuse]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        474M     0  474M   0% /dev
tmpfs           483M     0  483M   0% /dev/shm
tmpfs           483M  408K  483M   1% /run
tmpfs           483M     0  483M   0% /sys/fs/cgroup
/dev/xvda1      8.0G  1.9G  6.2G  24% /
tmpfs            97M     0   97M   0% /run/user/1000
s3fs             16E     0   16E   0% /mys3bucket
```

Step11: Now switch to that directory by using this command [cd /mys3bucket]

*create a file and add data to that file it will be create in s3bucket do like below and after run that go to aws s3 bucket and click on your s3 bucket it show the file what you create in Linux .

*if you want create use command [touch filename]

* if you want to create and add data to that file[cat > filename]

*if you want to delete that s3 bucket file from linux you can run this command [rm filename]

```
[root@ip-172-31-4-240 s3fs-fuse]# cd /mys3bucket
[root@ip-172-31-4-240 mys3bucket]# ls
[root@ip-172-31-4-240 mys3bucket]# ls -l
total 0
[root@ip-172-31-4-240 mys3bucket]# cat > test.txt
hello welcome to my workd
[root@ip-172-31-4-240 mys3bucket]# rm file.txt
rm: cannot remove 'file.txt': No such file or directory
[root@ip-172-31-4-240 mys3bucket]# rm test.txt
rm: remove regular file 'test.txt'? y
[root@ip-172-31-4-240 mys3bucket]# touch esawr
[root@ip-172-31-4-240 mys3bucket]# rm eswar
rm: cannot remove 'eswar': No such file or directory
[root@ip-172-31-4-240 mys3bucket]# rm esawr
rm: remove regular empty file 'esawr'? y
[root@ip-172-31-4-240 mys3bucket]# touch Eswar
[root@ip-172-31-4-240 mys3bucket]# rm eswar
rm: cannot remove 'eswar': No such file or directory
```

*For until now what you done is temporary mounting only means in the next reboot it will erase data and you must create all processes again so you want to make it permanent.

Step12: by using this command you make it file system permanent [vim /etc/rc.local]

*Note: here paste which s3 details-[/usr/bin] & mounting file details-[s3fs demo27dec -o use_cache=temp -o allow_other -o uid=1001 -o mp_umask=002 -o multireq_max=5 /mys3bucket]

*Next run this command to check permanent mount or not and reboot instance also [df -h]

```
[root@ip-172-31-4-240 s3fs-fuse]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        474M     0  474M   0% /dev
tmpfs           483M     0  483M   0% /dev/shm
tmpfs           483M  408K  483M   1% /run
tmpfs           483M     0  483M   0% /sys/fs/cgroup
/dev/xvda1      8.0G  1.9G  6.2G  24% /
tmpfs            97M     0   97M   0% /run/user/1000
s3fs             16E     0   16E   0% /mys3bucket
```

Step13: if you want unmount then just run this command on "root directorie"
run this command and [umount /mys3bucket] & next run this to check unmount or not [df -h]

```
[root@ip-172-31-4-240 s3fs-fuse]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        474M     0  474M   0% /dev
tmpfs           483M     0  483M   0% /dev/shm
tmpfs           483M  408K  483M   1% /run
tmpfs           483M     0  483M   0% /sys/fs/cgroup
/dev/xvda1      8.0G  1.9G  6.2G  24% /
tmpfs            97M     0   97M   0% /run/user/1000
```