#change directory from home to local directory

cd /Users/chenjie/Documents/GitHub/ACST890

#log into the linux machine

ssh -i 43372910.pem [ubuntu@ec2-54-206-122-41.ap-southeast-2.compute.amazonaws.com](mailto:ubuntu@ec2-54-206-122-41.ap-southeast-2.compute.amazonaws.com)

#question1(a) download the shell file from the website

wget https://www.staff.hs-mittweida.de/~wuenschi/data/media/compbiolbook/chapter-10-shell-programming--triplet-stop.sh

#rename it as “triplet-stop.sh”

mv chapter-10-shell-programming--triplet-stop.sh triplet-stop.sh

#make the shell file executable

chmod u+x triplet-stop.sh

#check whether the file is executable

ls -l triplet-stop.sh

#Q1b

#!/bin/bash

# save as triplet-stop.sh

# splits a sequence into triplets

x=0

while [ -n "${1:$x:3}" ]; do

seq=$seq${1:$x:3}" "

x=$(expr $x + 3)

if [ "$x" -gt 9 ]; then

if [ ${1:$x:3} == taa ]; then

break

fi

fi

done

echo "$seq"

#testing the script

./triplet-stop.sh tkdshnsmktaa

./triplet-stop.sh 123taa342taa

#question 2

#exit from the linux machine to local

exit

#q2a

scp -i 43372910.pem tutes.txt [ubuntu@ec2-54-206-122-41.ap-southeast-2.compute.amazonaws.com](mailto:ubuntu@ec2-54-206-122-41.ap-southeast-2.compute.amazonaws.com):

#make the shell file executable

chmod u+x tutes.txt

#question 2b

uniq -c tutes.txt

#question 3

#Change file.txt as the file that requires for searching patterns

#Exercise 11.2

egrep '^[^ ]+ [^ ]+ [^ ]+$' file.txt

#example

egrep '^[^ ]+ [^ ]+ [^ ]+$' example1.txt

#Exercise 11.3

egrep -e '\-[0-9]+' file.txt

#example

egrep -e '\-[0-9]+' example1.txt

#Exercise 11.4

egrep -e ' [+-]?[0-9]+((.)[0-9]+)?+ ' file.txt

#example

egrep -e ' [+-]?[0-9]+((.)[0-9]+)?+ ' example1.txt

#Exercise 11.6

egrep ' hydrogenase' file.txt

#example

egrep ' hydrogenase' example1.txt