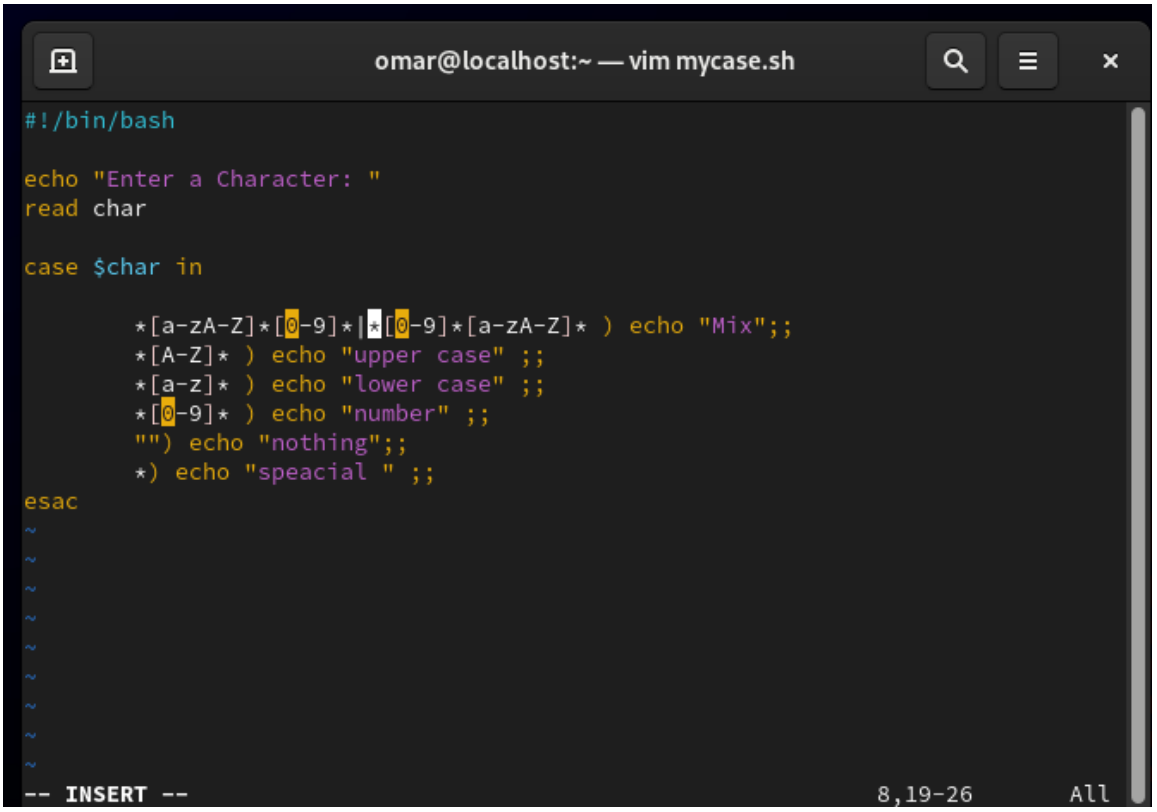
Bash lab 3

1. Write a script called mycase, using the case utility to checks the type of character entered by a user:
   a. Upper Case.
   b. Lower Case.
   c. Number.
   d. Nothing.

2. Enhanced the previous script, by checking the type of string entered by a user:
   a. Upper Cases.
   b. Lower Cases.
   c. Numbers.
   d. Mix.
   e. Nothing.

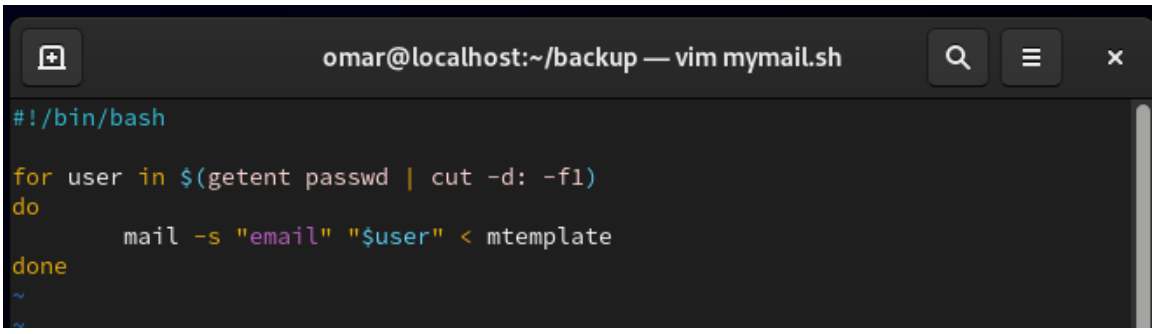


3. Write a script called mychmod using for utility to give execute permission to all files and directories in your home directory.

4. Write a script called mybackup using for utility to create a backup of only files in your home directory.


```
[omar@localhost ~]$ ls
back.png     Documents       hello.sh     mychmod.sh  mytest.sh  s2.sh
backup       Downloads       Music        mycp.sh     Pictures   scripts
dead.letter  findresult      mybachup.sh  myinfo.sh   Public     Templates
Desktop      findresult.zip  mycase.sh    myls.sh     s1.sh      Videos
[omar@localhost ~]$ cd backup/
[omar@localhost backup]$ ls
back.png     findresult.zip  mycase.sh   myinfo.sh  s1.sh
dead.letter  hello.sh        mychmod.sh  myls.sh    s2.sh
findresult   mybachup.sh     mycp.sh     mytest.sh
```

5. Write a script called mymail using for utility to send a mail to all users in the system. Note: write the mail body in a file called mtemplate.



6. Write a script called chkmail to check for new mails every 10 seconds. Note: mails are saved in /var/mail/username.

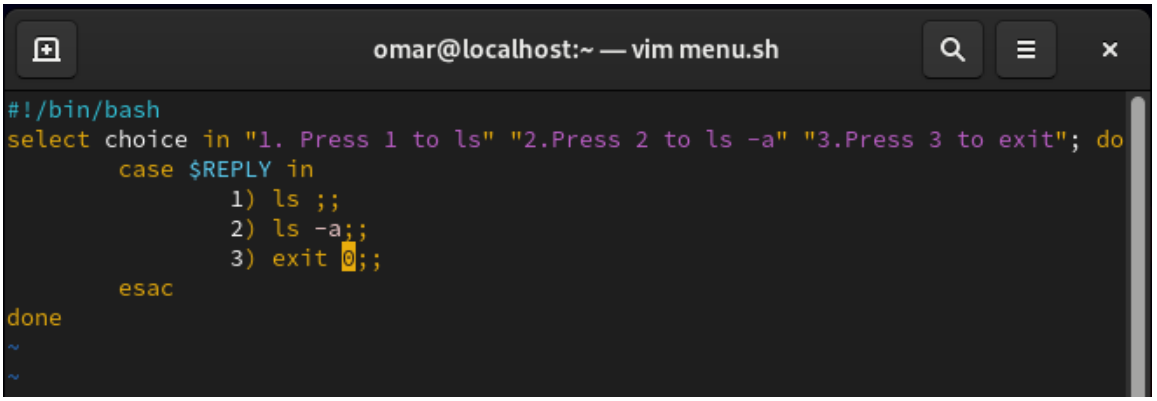
Bonus: Open a talk session to a certain user when she/he logs into the system.

7. What is the output of the following script

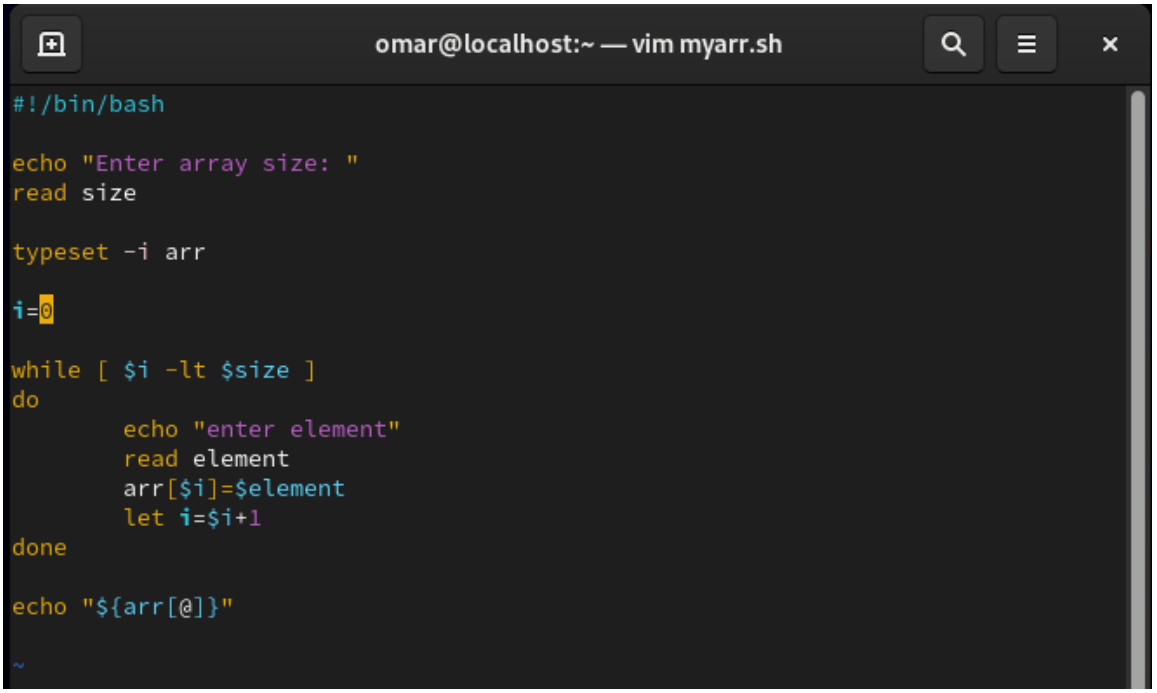
```
typeset –i n1
typeset –i n2
n1=1
n2=1
while test $n1 –eq $n2
do
  n2=$n2+1
  print $n1
  if [ $n1 –gt $n2 ]
  then
    break
  else
    continue
  fi
  n1=$n1+1
  print $n2
done
```

- Nothing will be printed because of the infinite loop

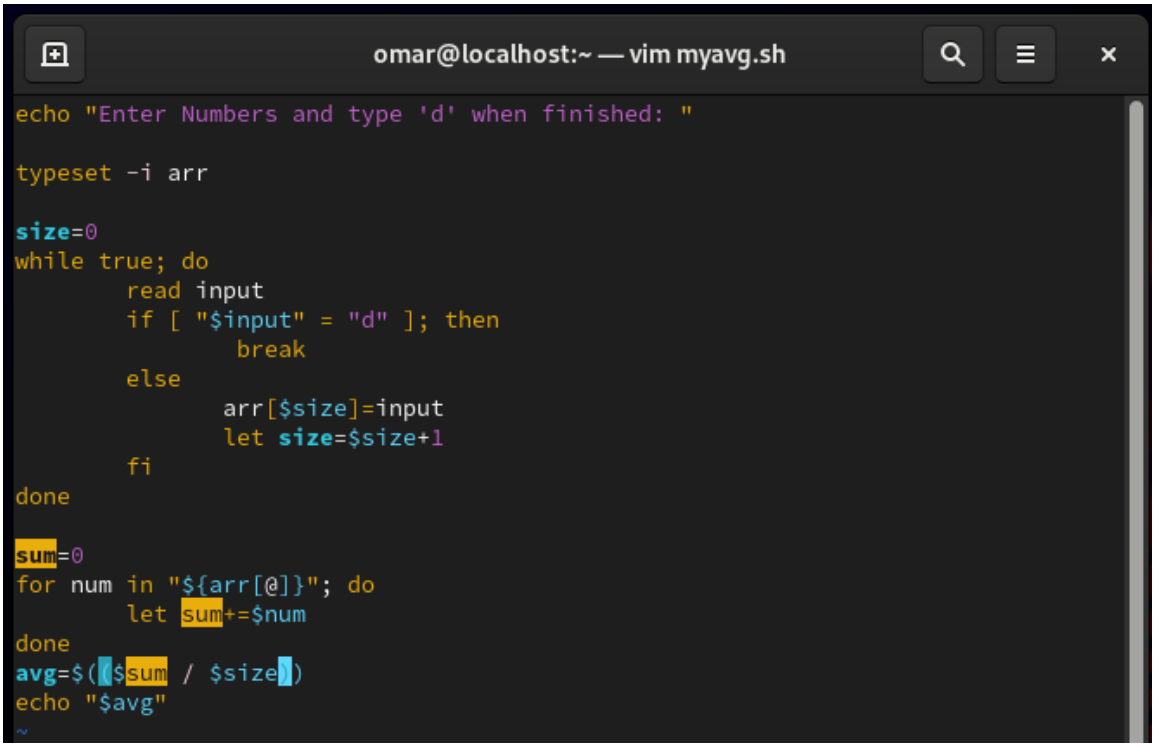
8. Create the following menu:
   a. Press 1 to ls
   b. Press 2 to ls –a
   c. Press 3 to exit
   Using select utility then while utility.



9. Write a script called myarr that ask a user how many elements he wants to enter in an array, fill the array and then print it.



10. Write a script called myavg that calculate average of all numbers entered by a user. Note: use arrays



11. Write a function called mysq that calculate square if its argument.