OS Practical No. 3

Aim:

1. Write a shell script to generate mark- sheet of a student. Take 3 subjects, calculate and display total marks, percentage and Class obtained by the student.

Code:

```
echo “Enter marks of English”
read m1
echo “Enter marks of
Maths” read m2
echo “Enter marks of science”
read m3
total=$(($m1+$m2+$m3))
percentage=$((total/3))
echo “Student: Total Marks =
$total” echo “Percentage =
$percentage”
if [ $percentage -gt 75 ]; then
        echo “Class: Distinction”
elif [ $percentage -gt 60 ]; then
         echo “Class: First Class”
elif [ $percentage -gt 40 ]; then
          echo “Class: Second Class”
elif [ $percentage -gt 35 ]; then
          echo “Class: Third Class”
else
          echo “Class: Fail”
fi
```

Output:

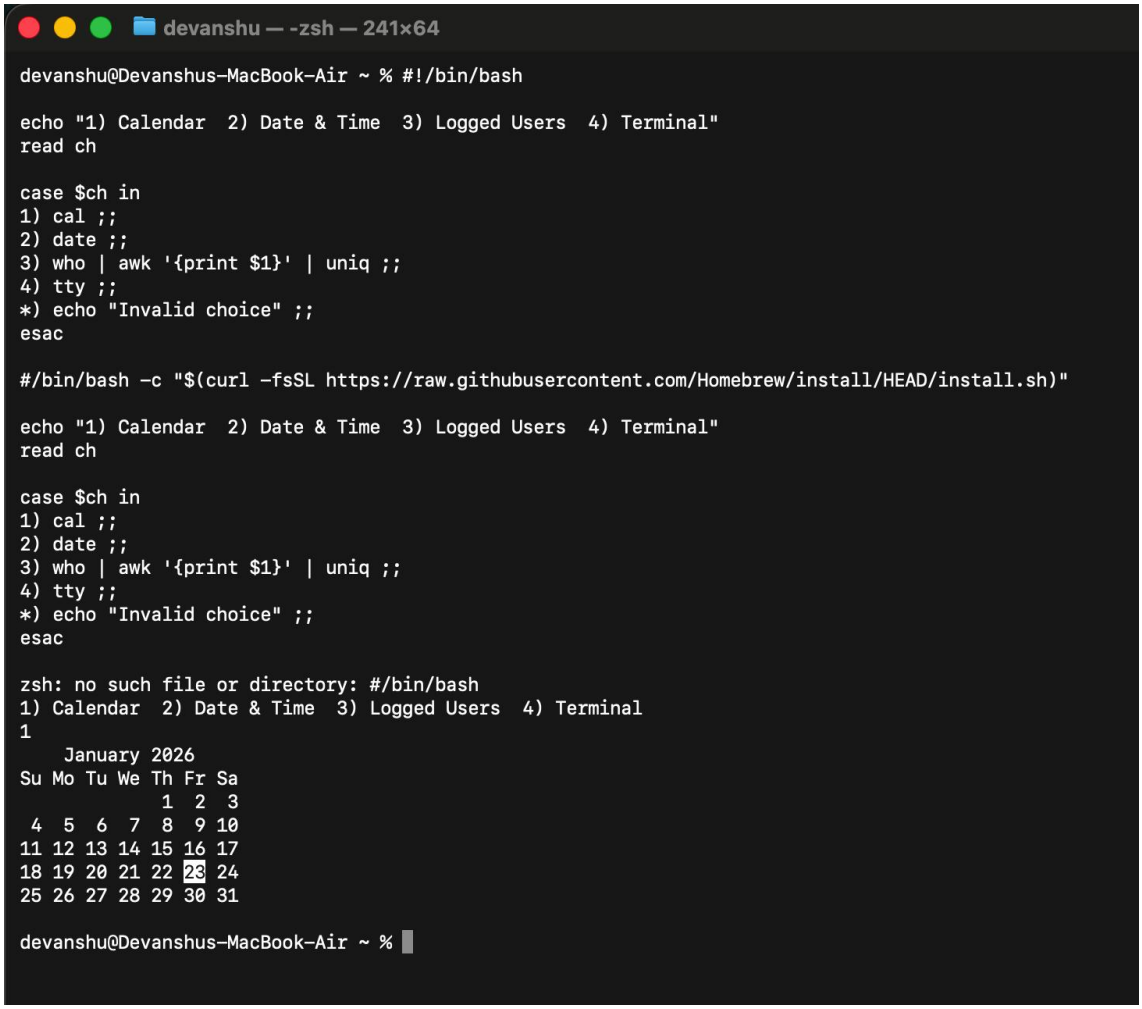

Terminal Shell Edit View Window Help
devanshu — -zsh — 211×56
Last login: Fri Jan 23 16:05:17 on ttys000
devanshu@Devanshus-MacBook-Air ~ % echo "Enter marks of English"
read m1
echo "Enter marks of Maths"
read m2
echo "Enter marks of science"
read m3
total=$(($m1+$m2+$m3))
percentage=$((total/3))
echo "Student: Total Marks = $total"
echo "Percentage = $percentage"
if [$percentage -gt 75]; then
echo "Class: Distinction"
elif [$percentage -gt 60]; then
echo "Class: First Class"
elif [$percentage -gt 40]; then
echo "Class: Second Class"
elif [$percentage -gt 35]; then
echo "Class: Third Class"
else
echo "Class: Fail"
fi
"Enter marks of English"
99
"Enter marks of Maths"
99
"Enter marks of science"
99
"Student: Total Marks = 297"
"Percentage = 99"
"Class: Distinction"
devanshu@Devanshus-MacBook-Air ~ %

2. Write a menu driven shell script which will print the following menu and execute the given task.

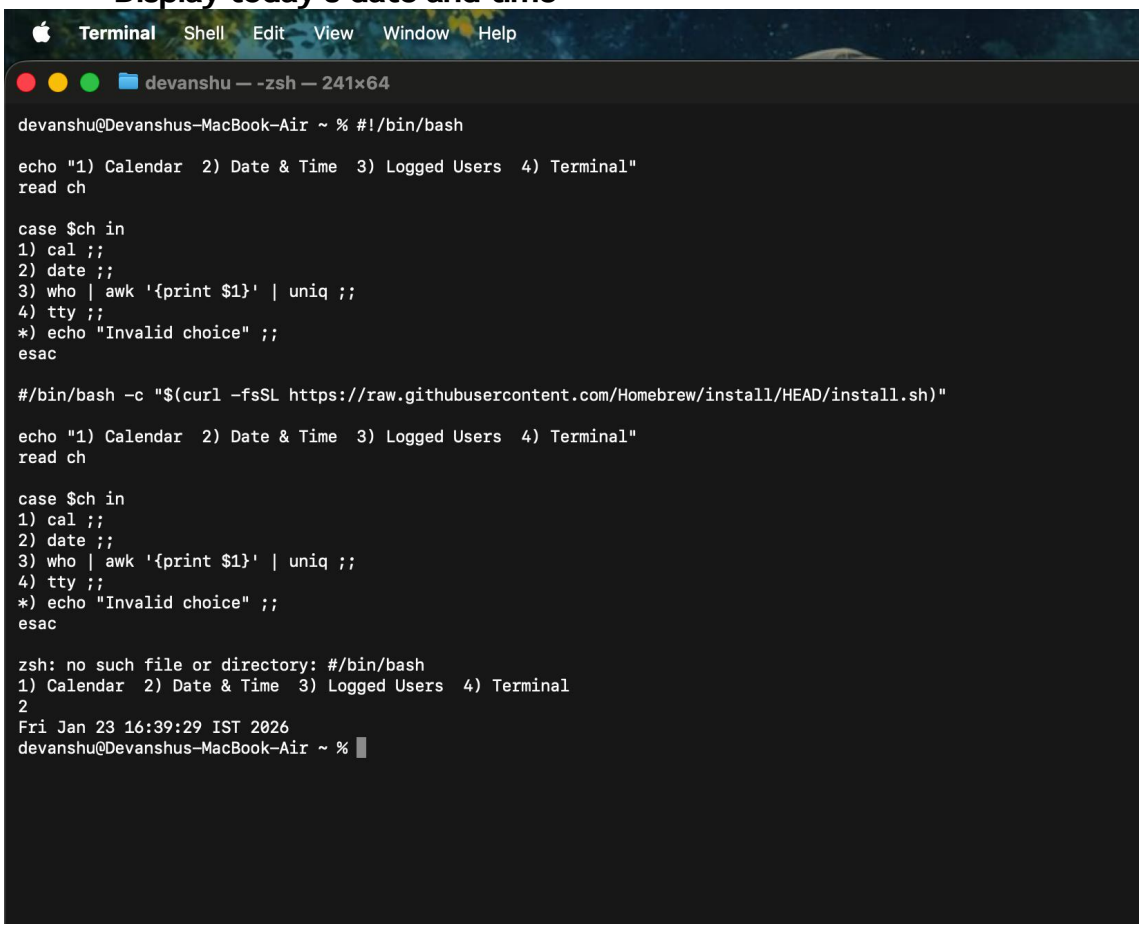
Code:

```
#!/bin/bash
echo "1) Calendar 2) Date & Time 3) Logged Users 4) Terminal"
read ch
case $ch in
1) cal ;;
2) date ;;
3) who | awk '{print $1}' | uniq ;;
4) tty ;;
*) echo "Invalid choice" ;;
Esac
```

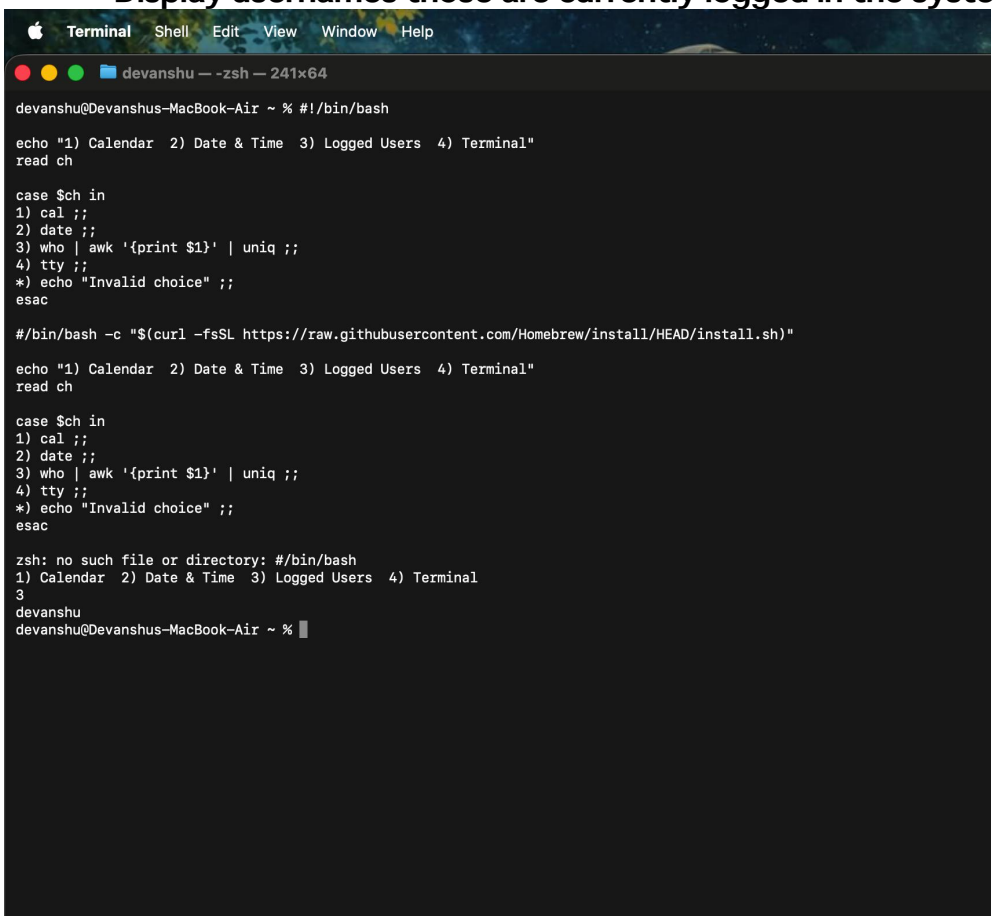
- **Display calendar of current month**



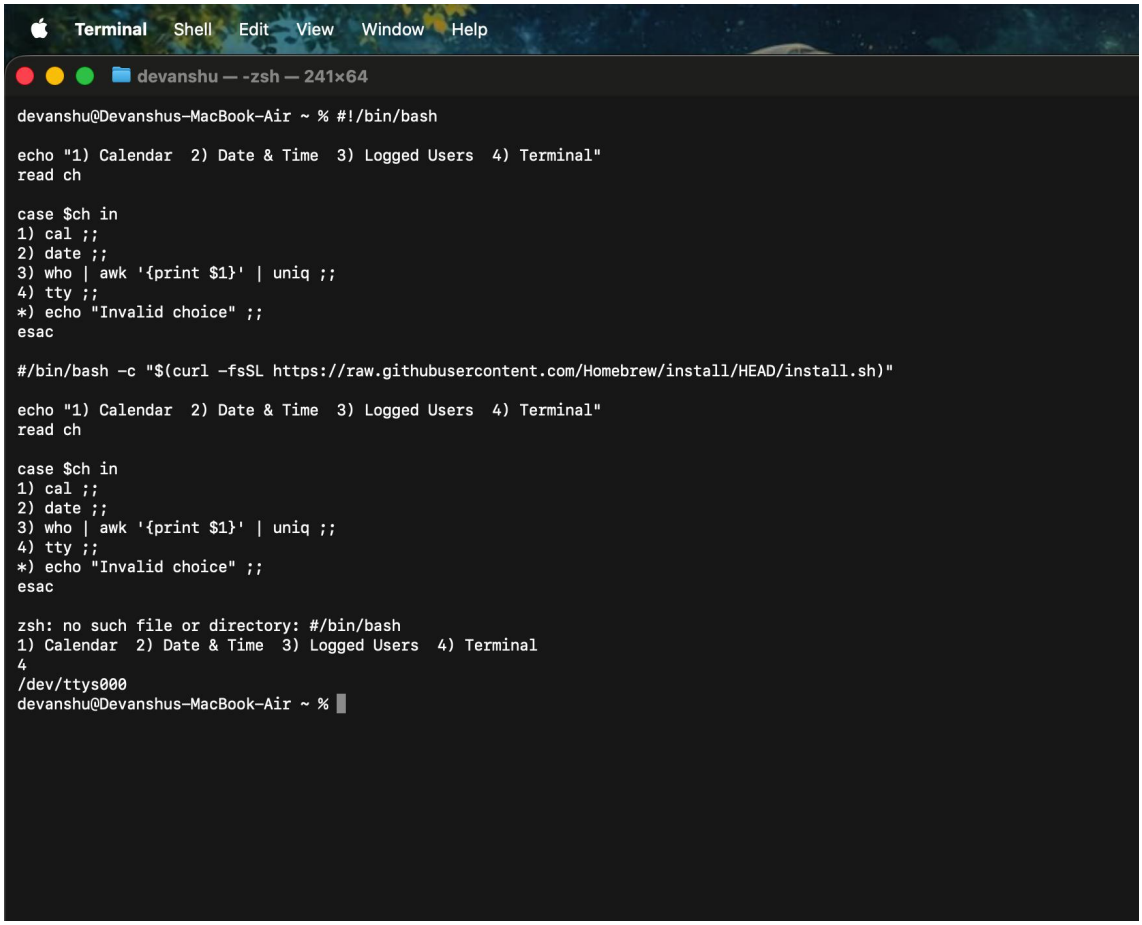
- Display today's date and time



- Display usernames those are currently logged in the system



- Display your terminal number

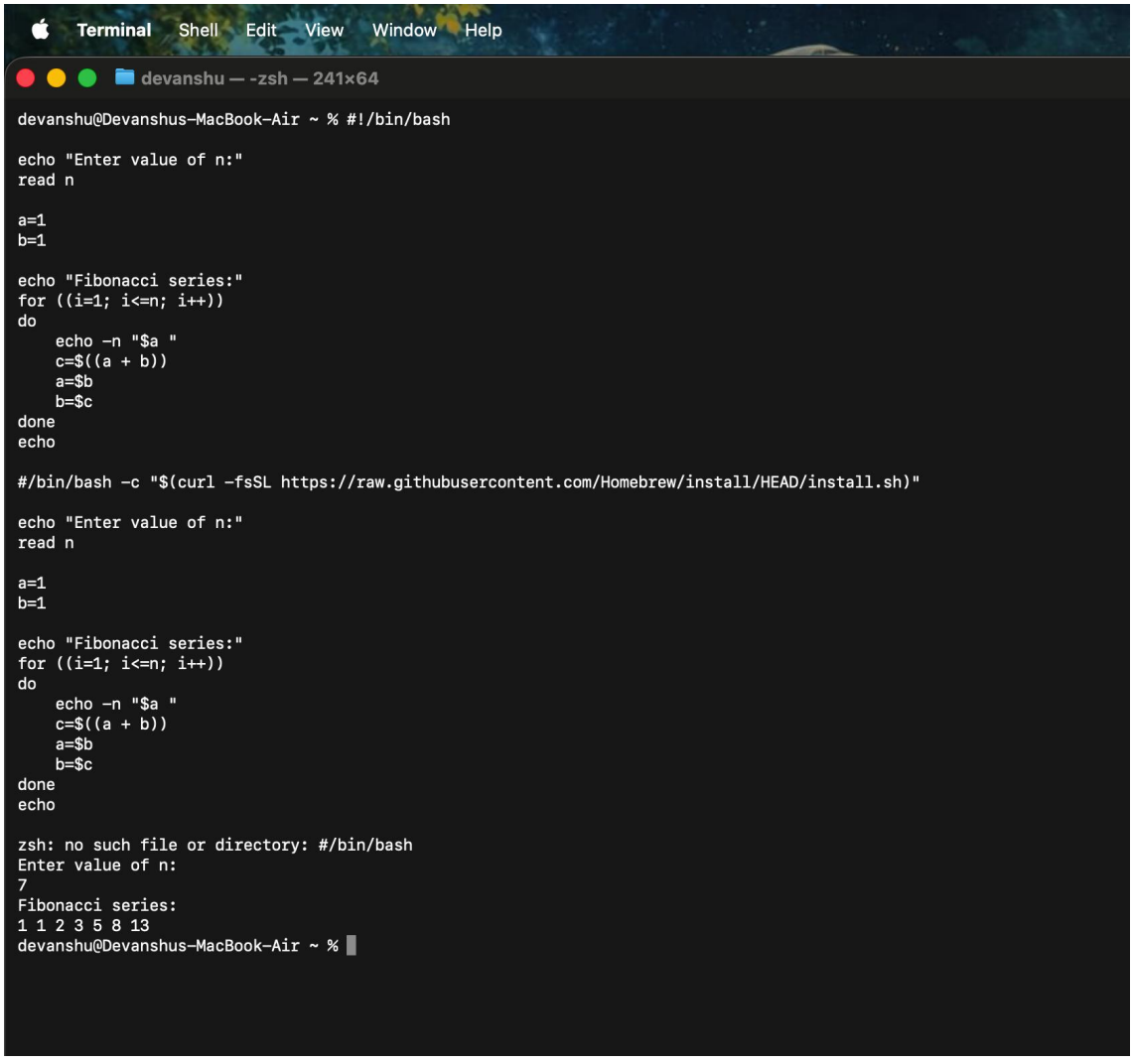


3. Write a shell script which will generate first n fibonnacci numbers like: 1, 2, 3, 5, 13

Code:

```
#!/bin/bash
echo "Enter value of
n:" read n
a=1
b=1
echo "Fibonacci series:"
for ((i=1; i<=n; i++))
do
   echo -n "$a
   " c=$((a +
   b)) a=$b
   b=$c
done
echo
```

Output:

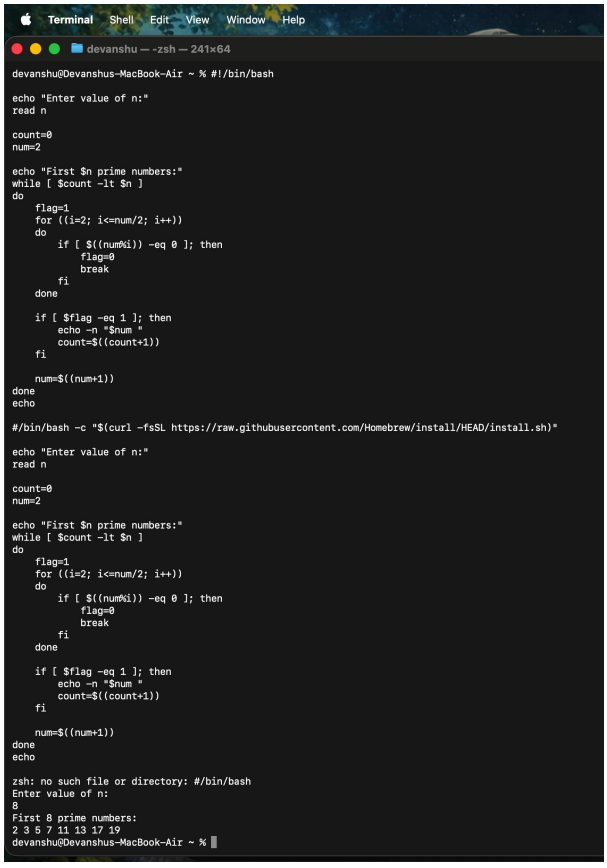


4. Write a shell script which will accept a number b and display first n prime numbers as output

Code:

```
#!/bin/bash
echo "Enter value of
n:" read n
count=0
num=2
echo "First $n prime numbers:"
while [ $count -lt $n ]
do
   flag=1
   for ((i=2; i<=num/2; i++))
   do
      if [ $((num%i)) -eq 0 ];
         then flag=0
         Break
      fi
   done
   if [ $flag -eq 1 ];
      then echo -n
      "$num "
      count=$((count+1))
   fi
num=$((num+1))
done
Echo
```

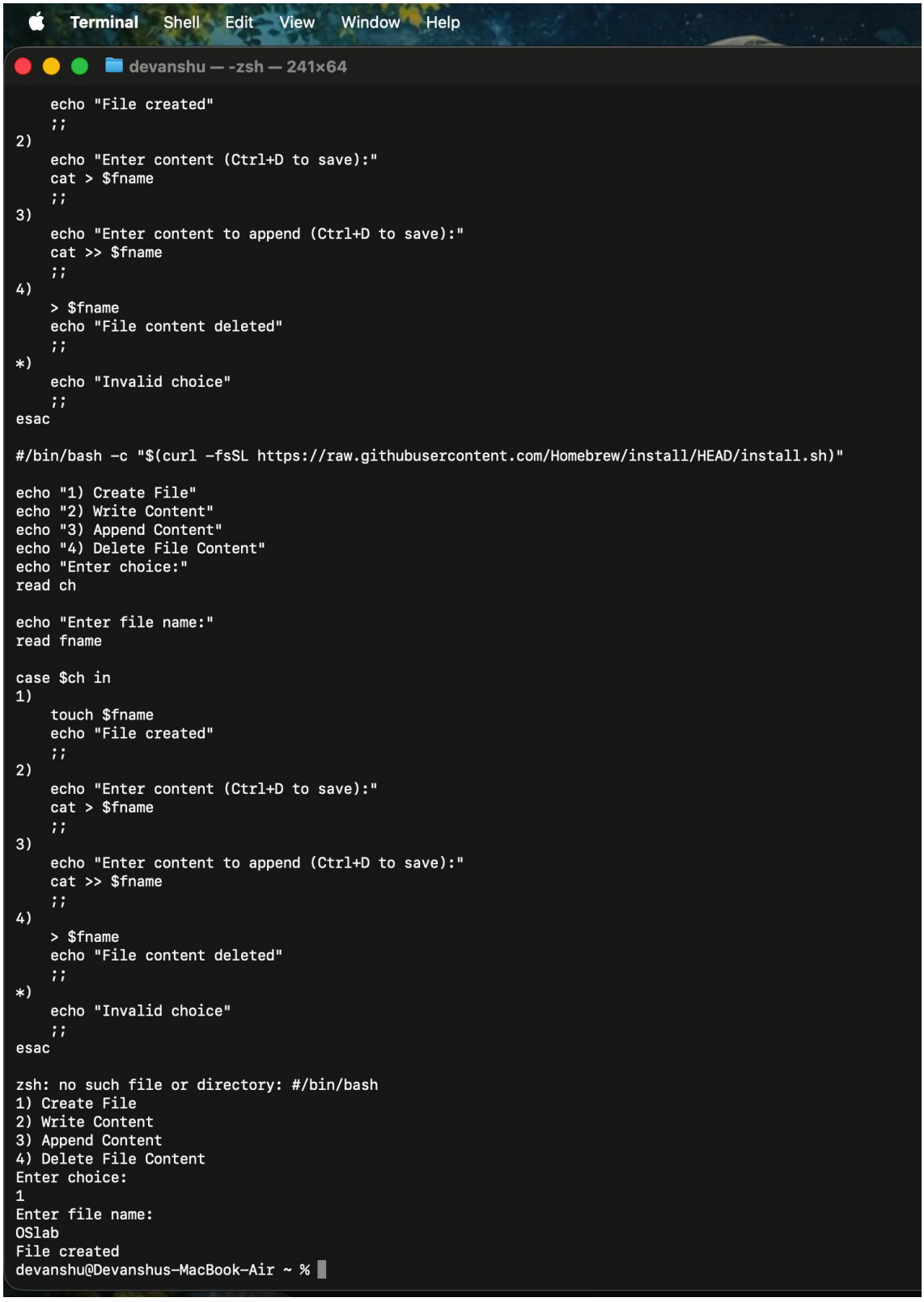
Output:



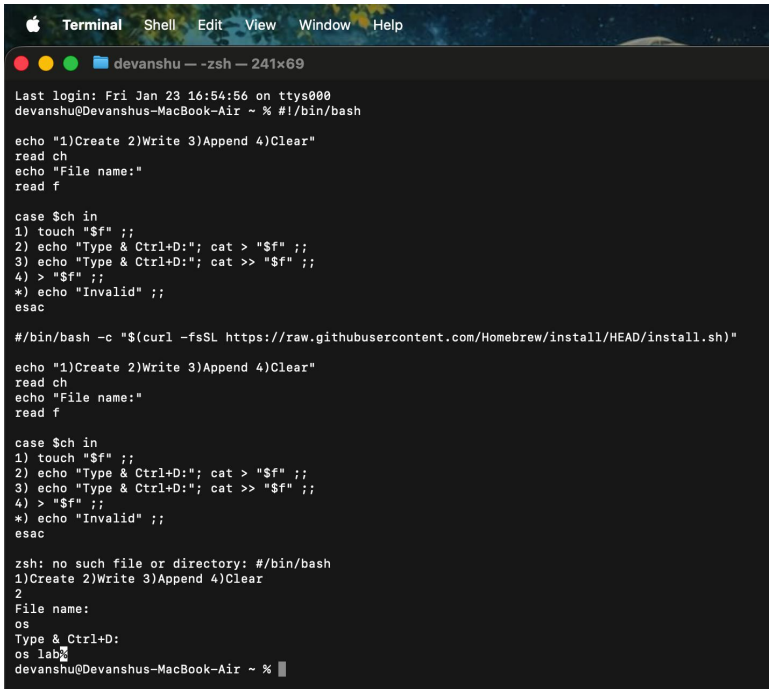
5. Write menu driven program for file handling activity

```
#!/bin/bash
echo "1) Create File"
echo "2) Write
Content"
echo "3) Append Content"
echo "4) Delete File
Content" echo "Enter
choice:"
read ch
echo "Enter file name:"
read fname
case $ch in
1)
   touch $fname
   echo "File created" ;;
2)
   echo "Enter content (Ctrl+D to save):"
   cat > $fname ;;
3)
   echo "Enter content to append (Ctrl+D to save):"
   cat >> $fname ;;
4)
   > $fname
   echo "File content deleted" ;;
*)
   echo "Invalid choice" ;;
Esac
```

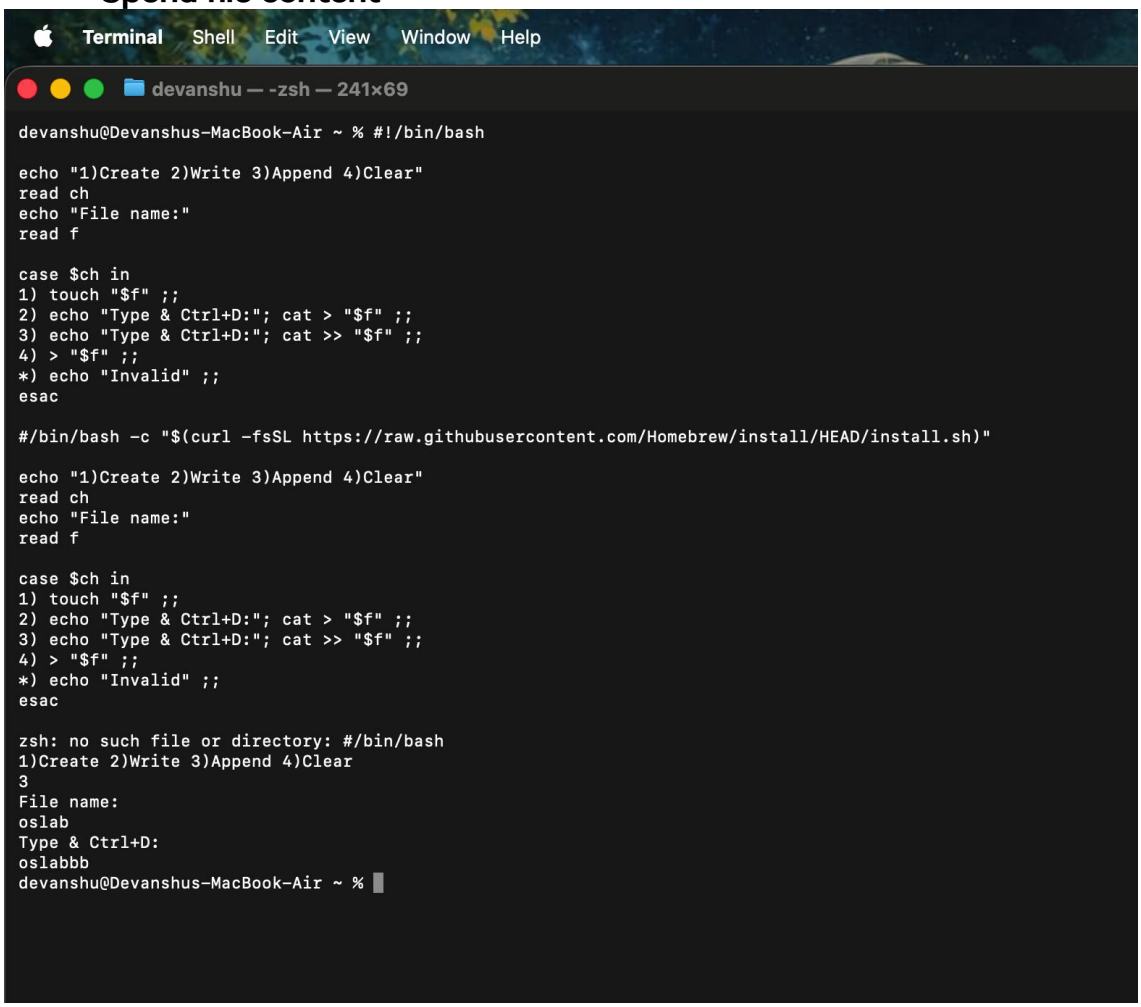
- Creation of file



- **Write content in the file**



- **Upend file content**



- Delete file content