

Assignment 7

Name : Chinmay Milind Sheth

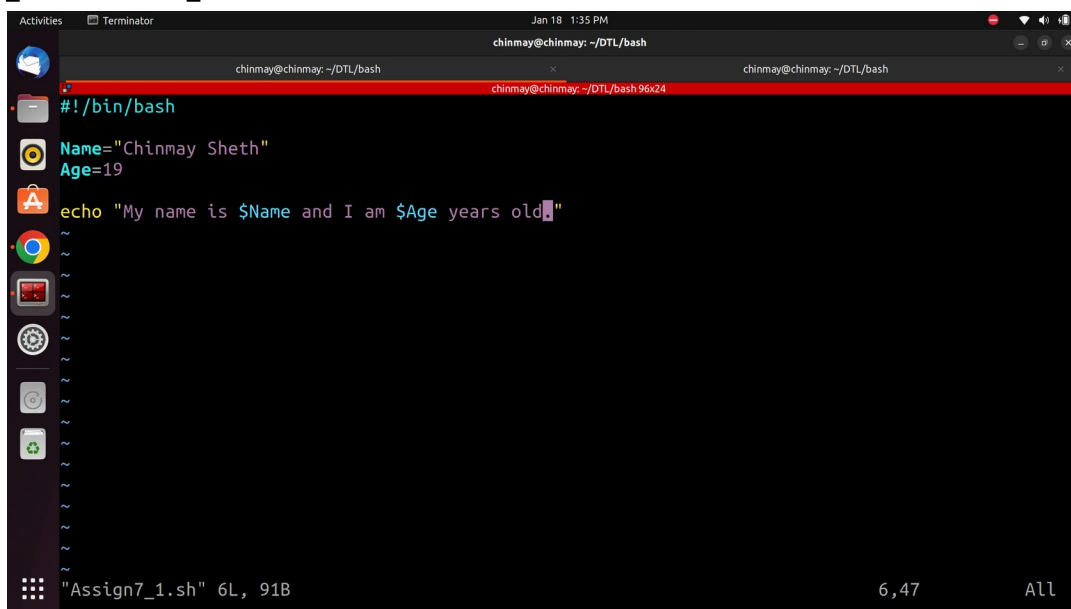
MIS : 142203003

Class : SY Comp Div 2

Batch : S5

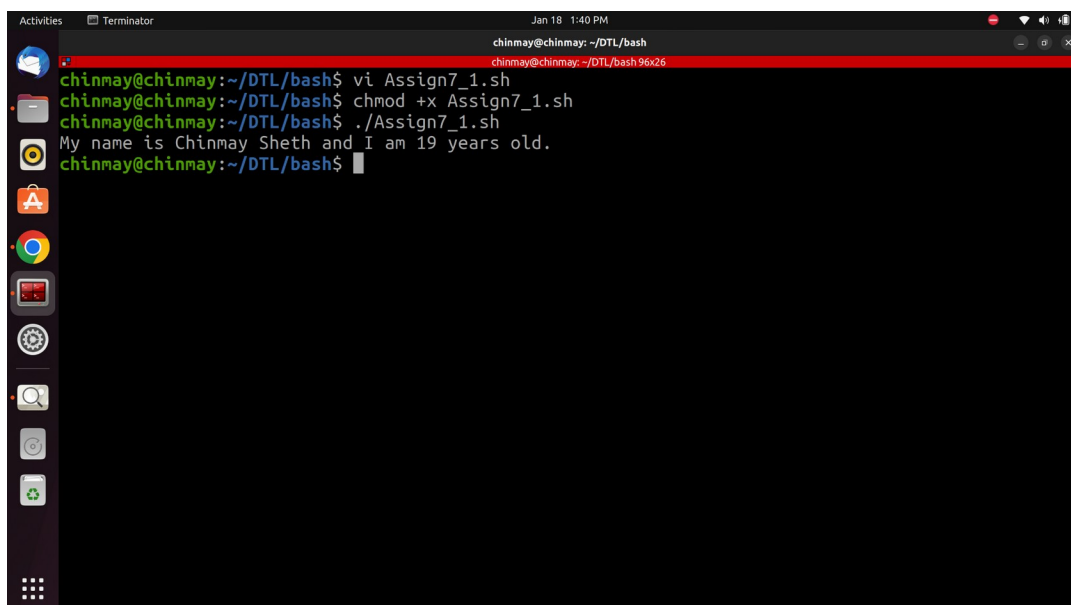
BASH COMMANDS EXECUTION

1. Input/Output Variables



```
#!/bin/bash
Name="Chinmay Sheth"
Age=19
echo "My name is $Name and I am $Age years old"
```

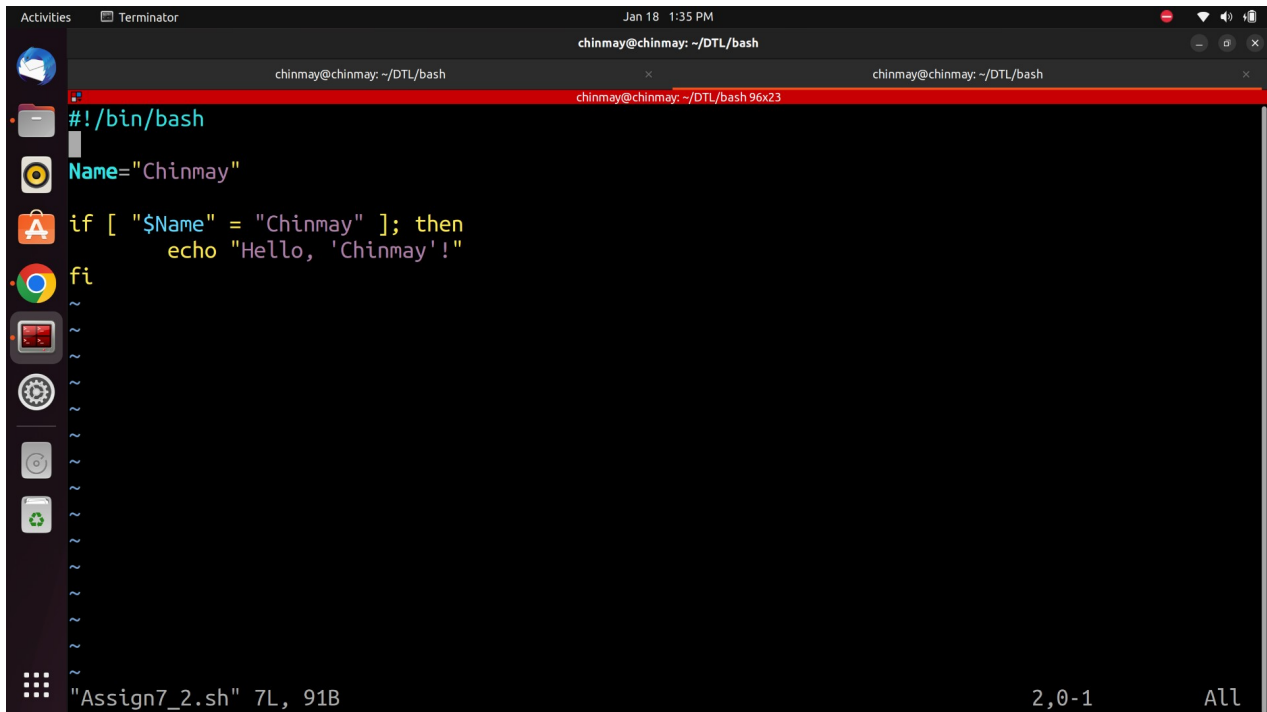
The screenshot shows a terminal window titled "Terminator" with a dark background. The prompt is "chinmay@chinmay: ~/DTL/bash". The user has entered the following commands: `#!/bin/bash`, `Name="Chinmay Sheth"`, `Age=19`, and `echo "My name is $Name and I am $Age years old"`. The status bar at the bottom indicates the file "Assign7_1.sh" is 6 lines long and 91 bytes in size.



```
chinmay@chinmay:~/DTL/bash$ vi Assign7_1.sh
chinmay@chinmay:~/DTL/bash$ chmod +x Assign7_1.sh
chinmay@chinmay:~/DTL/bash$ ./Assign7_1.sh
My name is Chinmay Sheth and I am 19 years old.
```

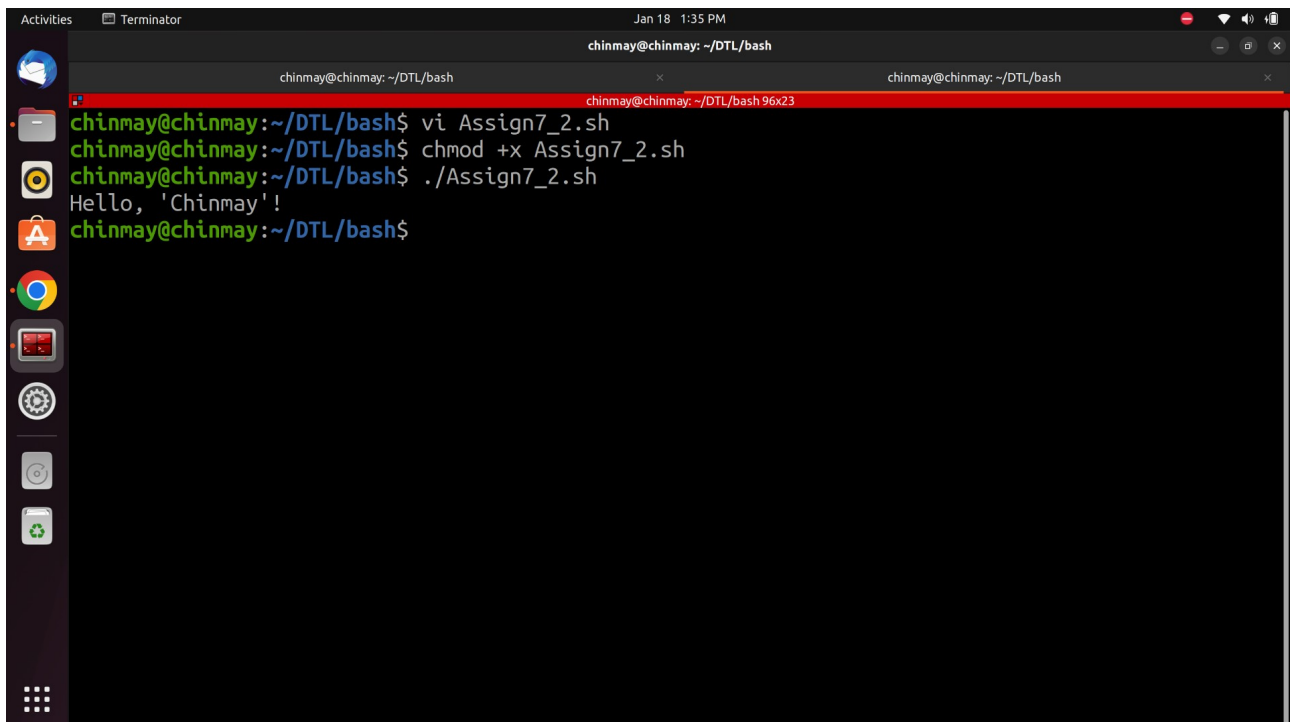
The screenshot shows the same terminal window after the script has been executed. The user has entered `vi Assign7_1.sh`, `chmod +x Assign7_1.sh`, and `./Assign7_1.sh`. The output of the script is displayed: "My name is Chinmay Sheth and I am 19 years old."

2. if Statement



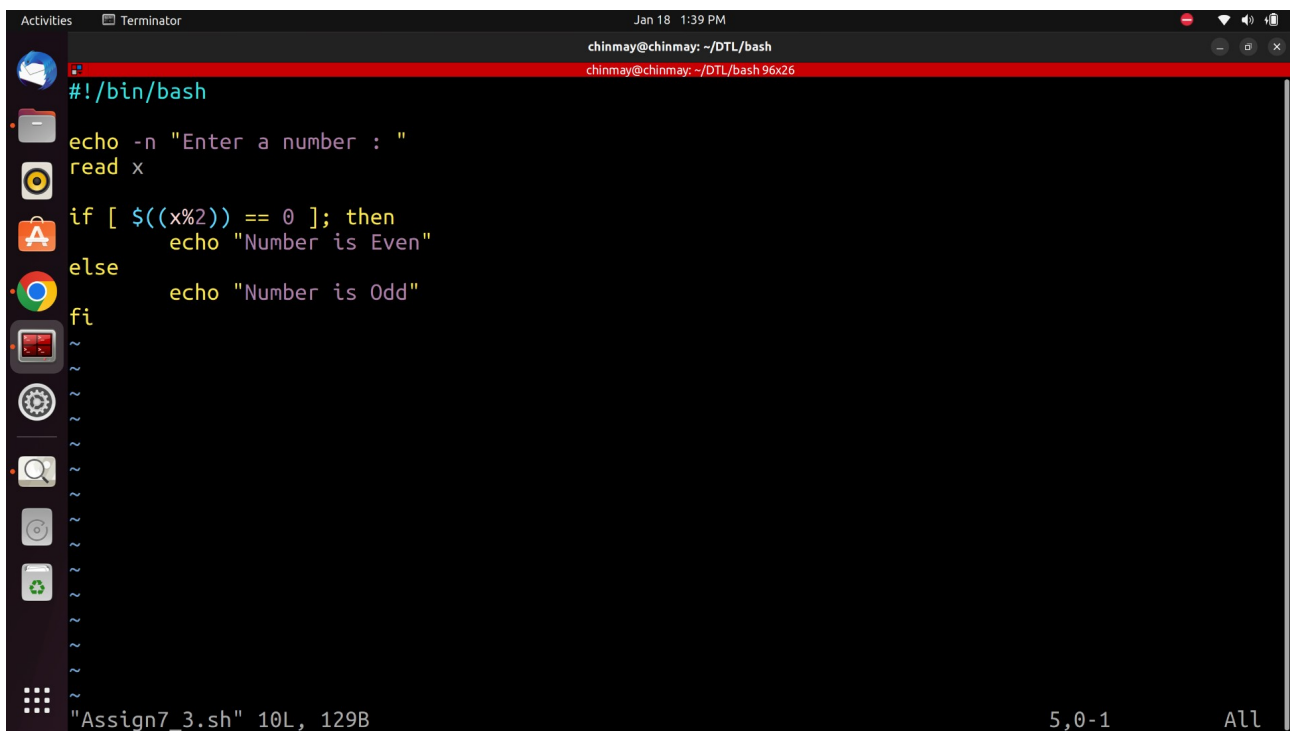
```
chinmay@chinmay: ~/DTL/bash
#!/bin/bash
Name="Chinmay"
if [ "$Name" = "Chinmay" ]; then
    echo "Hello, 'Chinmay'!"
fi
```

"Assign7_2.sh" 7L, 91B 2,0-1 All



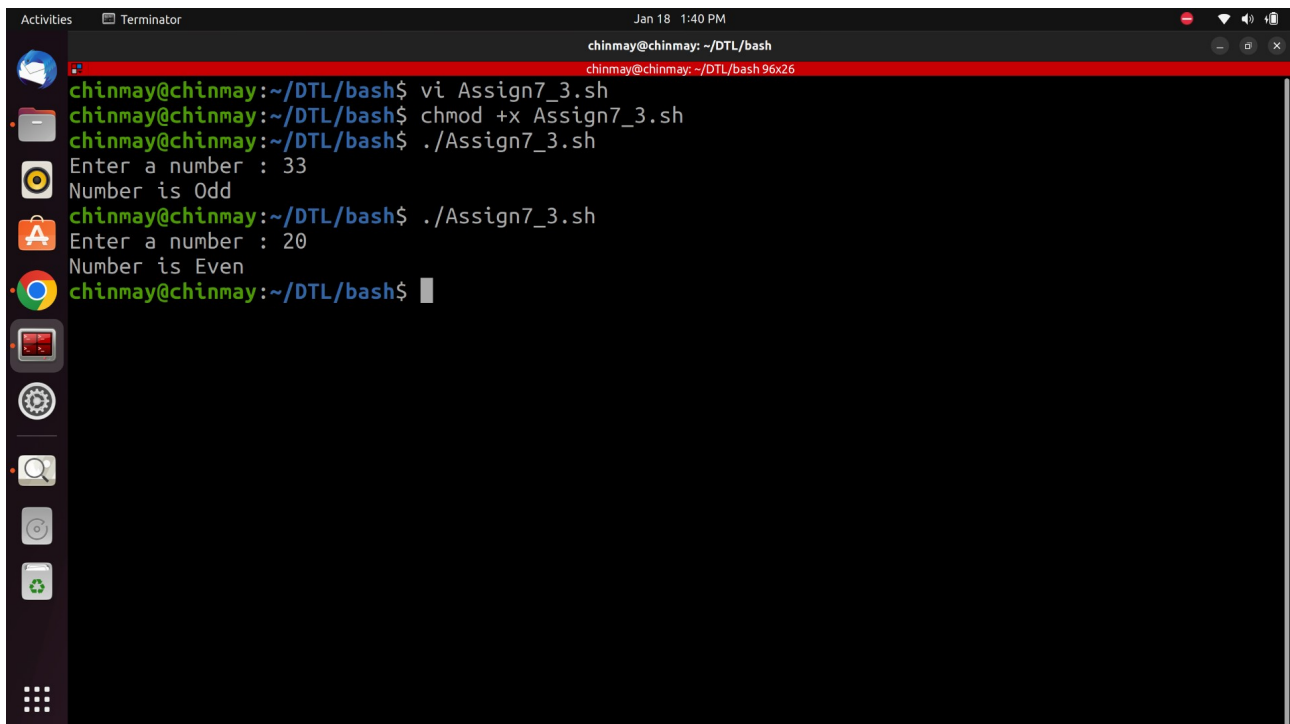
```
chinmay@chinmay:~/DTL/bash$ vi Assign7_2.sh
chinmay@chinmay:~/DTL/bash$ chmod +x Assign7_2.sh
chinmay@chinmay:~/DTL/bash$ ./Assign7_2.sh
Hello, 'Chinmay'!
chinmay@chinmay:~/DTL/bash$
```

3. if-else Statements



```
#!/bin/bash
echo -n "Enter a number : "
read x
if [  $$(x\%2)$  == 0 ]; then
    echo "Number is Even"
else
    echo "Number is Odd"
fi
```

"Assign7_3.sh" 10L, 129B



```
chinmay@chinmay:~/DTL/bash$ vi Assign7_3.sh
chinmay@chinmay:~/DTL/bash$ chmod +x Assign7_3.sh
chinmay@chinmay:~/DTL/bash$ ./Assign7_3.sh
Enter a number : 33
Number is Odd
chinmay@chinmay:~/DTL/bash$ ./Assign7_3.sh
Enter a number : 20
Number is Even
chinmay@chinmay:~/DTL/bash$
```

4. for Loop



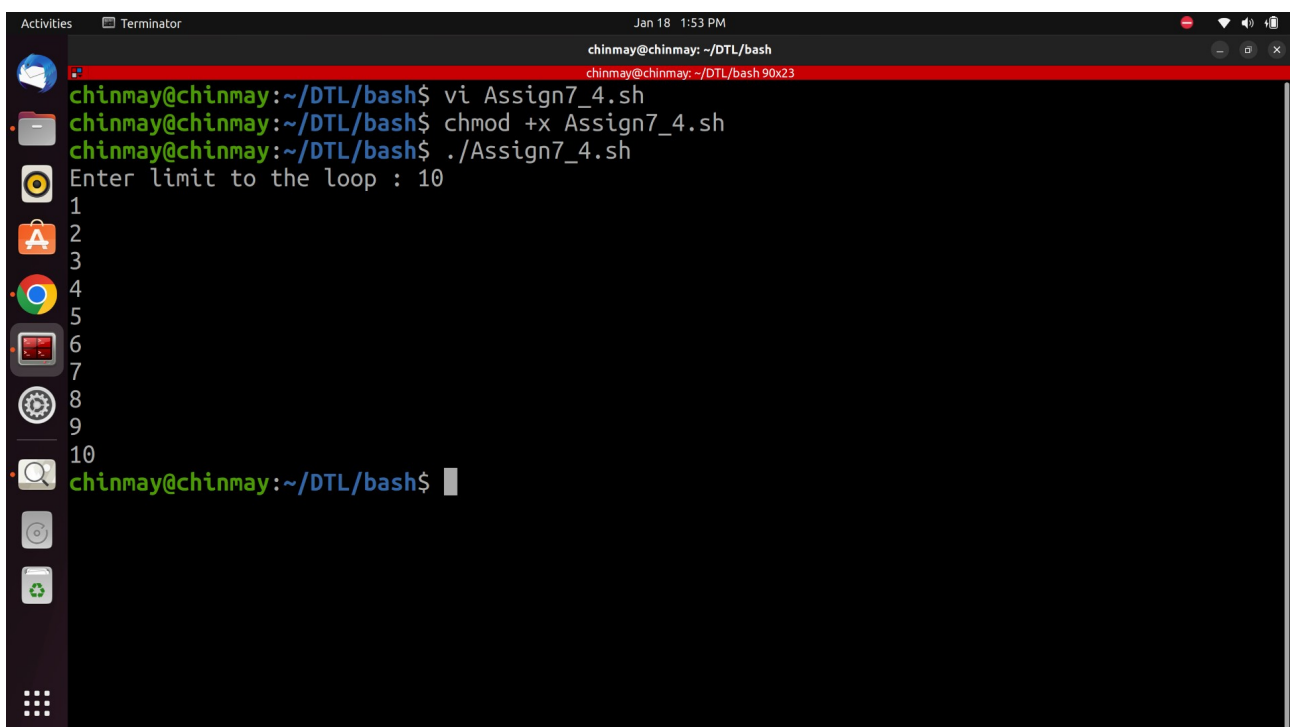
A screenshot of a terminal window titled "Terminator" showing a script for a for loop. The script prompts the user to enter a limit, reads the input, and then loops from 1 to that limit, printing each value. The terminal shows the script code and the user input "5,0-1".

```
#!/bin/bash

echo -n "Enter limit to the loop : "
read n

for ((i=1; i<=$n; i++));
do
    echo $i
done
```

5,0-1 All



A screenshot of a terminal window titled "Terminator" showing the execution of the script. The user runs the script, enters the limit "10", and the script prints the numbers 1 through 10. The terminal shows the commands and the output of the script.

```
chinmay@chinmay:~/DTL/bash$ vi Assign7_4.sh
chinmay@chinmay:~/DTL/bash$ chmod +x Assign7_4.sh
chinmay@chinmay:~/DTL/bash$ ./Assign7_4.sh
Enter limit to the loop : 10
1
2
3
4
5
6
7
8
9
10
chinmay@chinmay:~/DTL/bash$
```

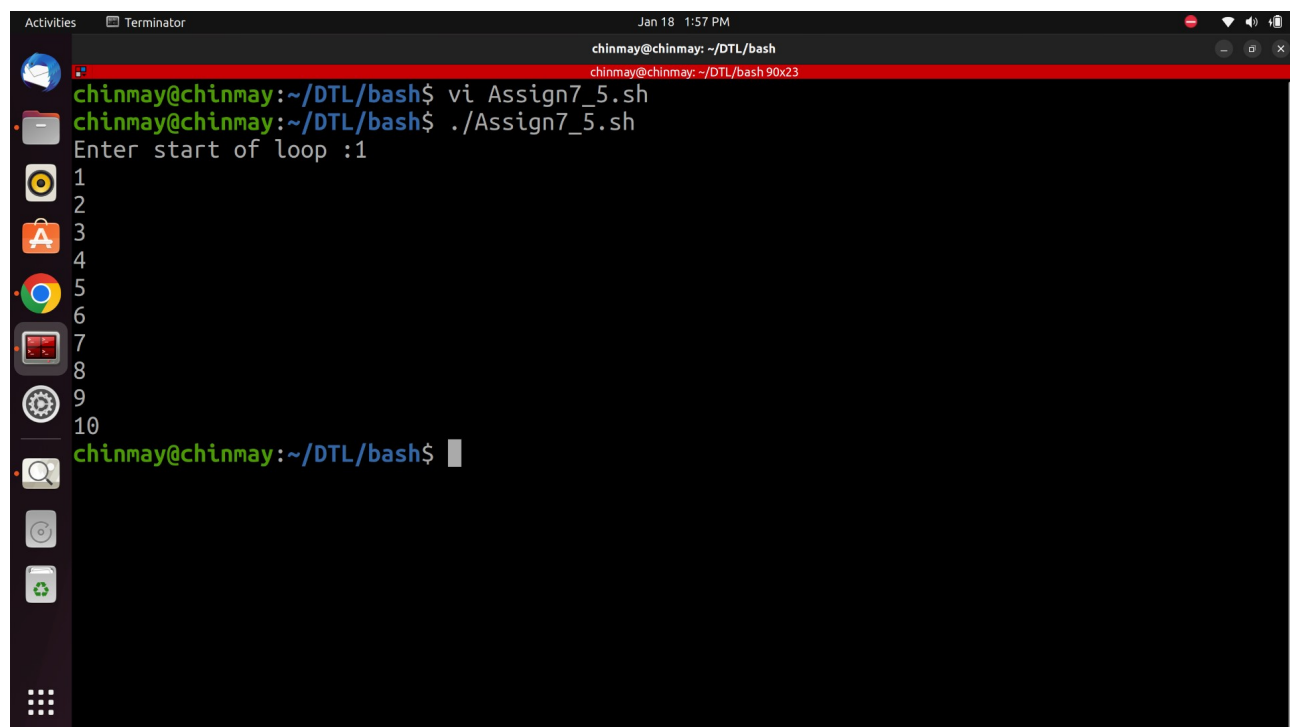
5. while Loop



A screenshot of a terminal window titled "Terminator" showing the creation of a script named "Assign7_5.sh". The script uses a while loop to print numbers from 1 to 10. The terminal output shows the script being edited and then saved. The status bar at the bottom indicates the file size is 10L, 115B.

```
#!/bin/bash
echo -n "Enter start of loop : "
read num
while [ $num -le 10 ];
do
    echo $num
    num=$((num+1))
done
```

"Assign7_5.sh" 10L, 115B 3,23 All



A screenshot of a terminal window titled "Terminator" showing the execution of the script "Assign7_5.sh". The user enters the start of the loop as 1, and the script prints numbers from 1 to 10. The terminal output shows the script being executed and the numbers being printed.

```
chinmay@chinmay:~/DTL/bash$ vi Assign7_5.sh
chinmay@chinmay:~/DTL/bash$ ./Assign7_5.sh
Enter start of loop :1
1
2
3
4
5
6
7
8
9
10
chinmay@chinmay:~/DTL/bash$
```

6. Case Statements

```
Activities Terminator Jan 18 1:48 PM
chinmay@chinmay: ~/DTL/bash
chinmay@chinmay: ~/DTL/bash 90x23
#!/bin/bash
echo "Enter Name"
read Name
case "$Name" in
    #case 1
    "Shreyas") echo "Department : Instrumentation and Control Engineering" ;;


    #case 2
    "Chinmay") echo "Department : Computer and IT Engineering" ;;

    #case 3
    "Swarup") echo "Department : Electrical Engineering" ;;

    #case 4
    "Mehul") echo "Department : Mechanical Engineering" ;;
esac
~
~
~
5,0-1 All
```

```
Activities Terminator Jan 18 1:48 PM
chinmay@chinmay: ~/DTL/bash
chinmay@chinmay: ~/DTL/bash 80x21
chinmay@chinmay:~/DTL/bash$ vi Assign7_4.sh
chinmay@chinmay:~/DTL/bash$ vi Assign7_7.sh
chinmay@chinmay:~/DTL/bash$ chmod +x Assign7_7.sh
chinmay@chinmay:~/DTL/bash$ ./Assign7_7.sh
Enter Name
Chinmay
Department : Computer and IT Engineering
chinmay@chinmay:~/DTL/bash$ ./Assign7_7.sh
Enter Name
Shreyas
Department : Instrumentation and Control Engineering
chinmay@chinmay:~/DTL/bash$ ./Assign7_7.sh
Enter Name
Swarup
Department : Electrical Engineering
chinmay@chinmay:~/DTL/bash$ ./Assign7_7.sh
Enter Name
Mehul
Department : Mechanical Engineering
chinmay@chinmay:~/DTL/bash$
```

7. Function to add two numbers



```
#!/bin/bash

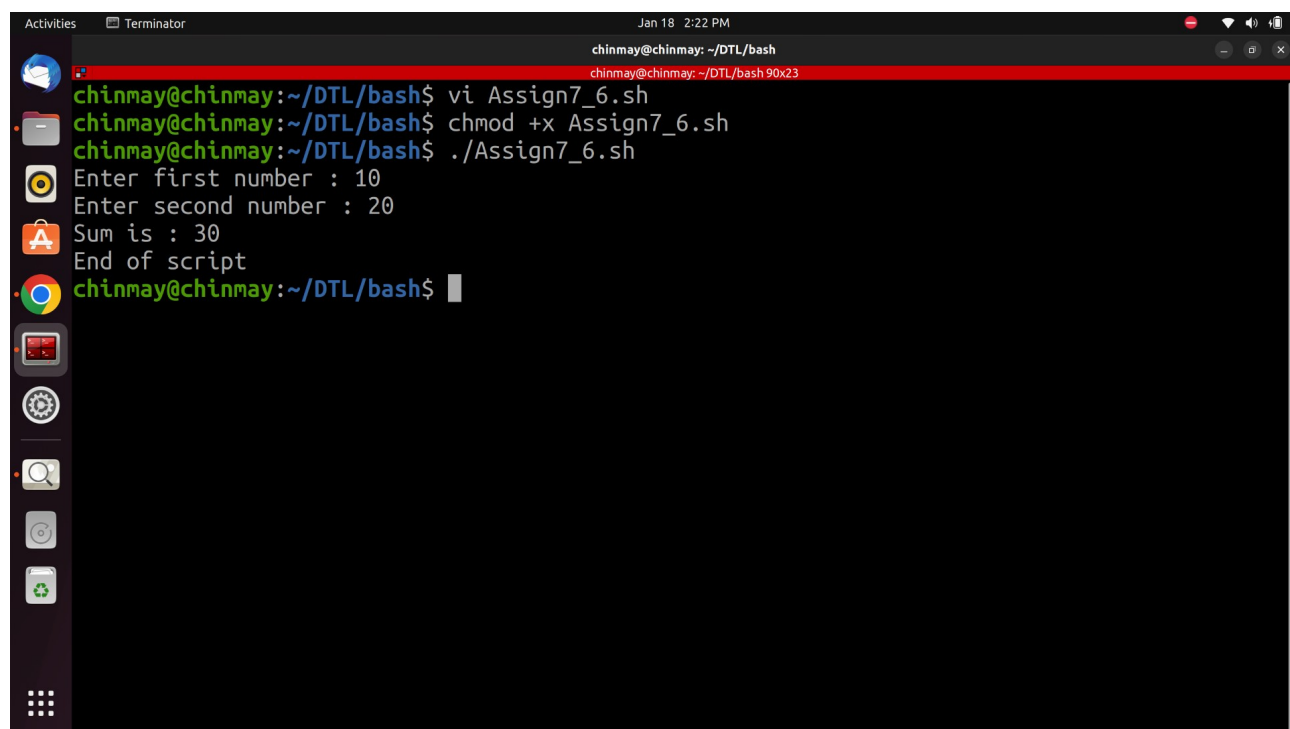
add() {
    result=$(( $1 + $2 ))
}

echo -n "Enter first number : "
read n1

echo -n "Enter second number : "
read n2

add $n1 $n2
echo "Sum is : $result"
echo "End of script"
```

"Assign7_6.sh" 16L, 186B 15,22 All



```
chinmay@chinmay:~/DTL/bash$ vi Assign7_6.sh
chinmay@chinmay:~/DTL/bash$ chmod +x Assign7_6.sh
chinmay@chinmay:~/DTL/bash$ ./Assign7_6.sh
Enter first number : 10
Enter second number : 20
Sum is : 30
End of script
chinmay@chinmay:~/DTL/bash$
```