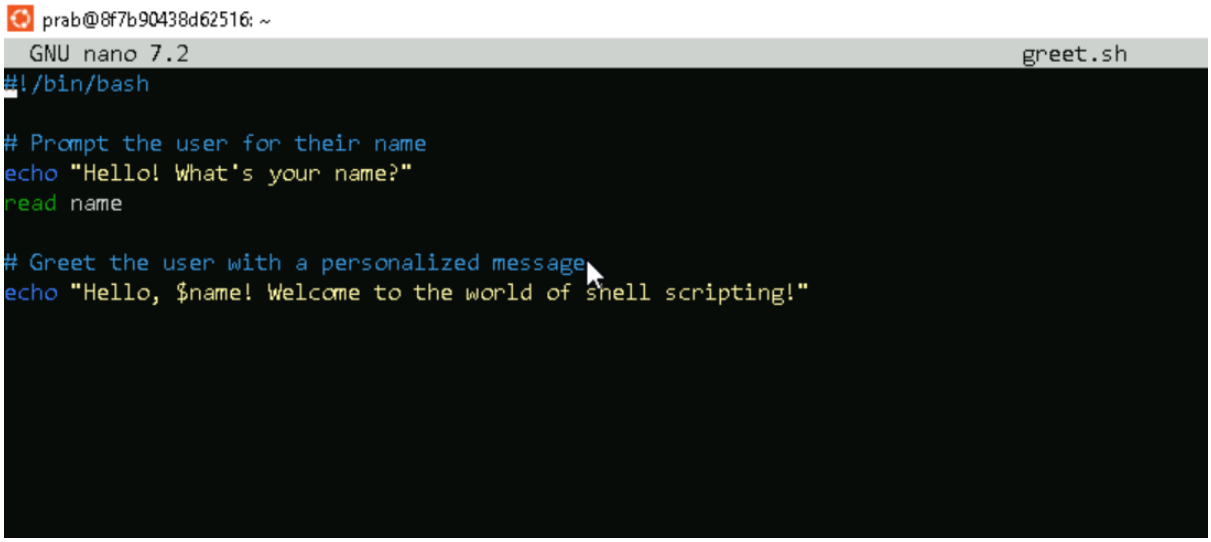
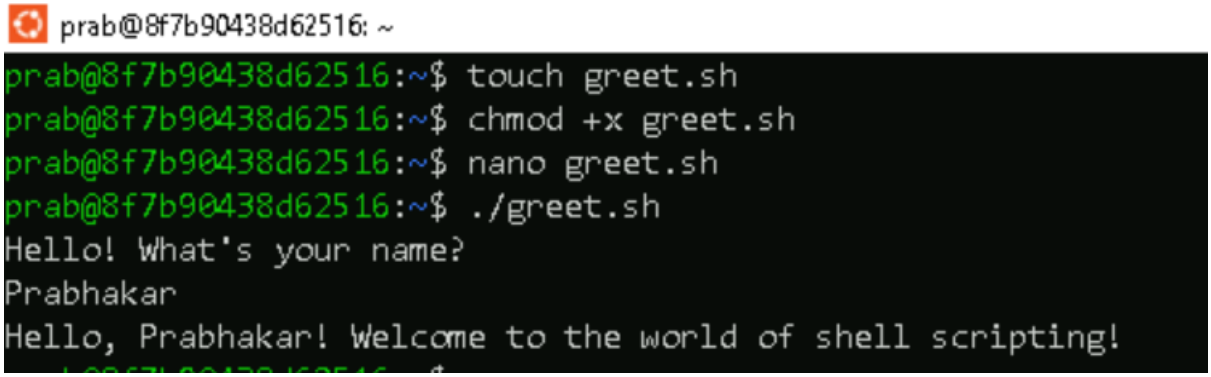
1)GREET


prab@8f7b90438d62516: ~
GNU nano 7.2
greet.sh
#!/bin/bash
Prompt the user for their name
echo "Hello! What's your name?"
read name
Greet the user with a personalized message
echo "Hello, $name! Welcome to the world of shell scripting!"


prab@8f7b90438d62516: ~
prab@8f7b90438d62516:~$ touch greet.sh
prab@8f7b90438d62516:~$ chmod +x greet.sh
prab@8f7b90438d62516:~$ nano greet.sh
prab@8f7b90438d62516:~$ ./greet.sh
Hello! What's your name?
Prabhakar
Hello, Prabhakar! Welcome to the world of shell scripting!

2)Add Two Numbers

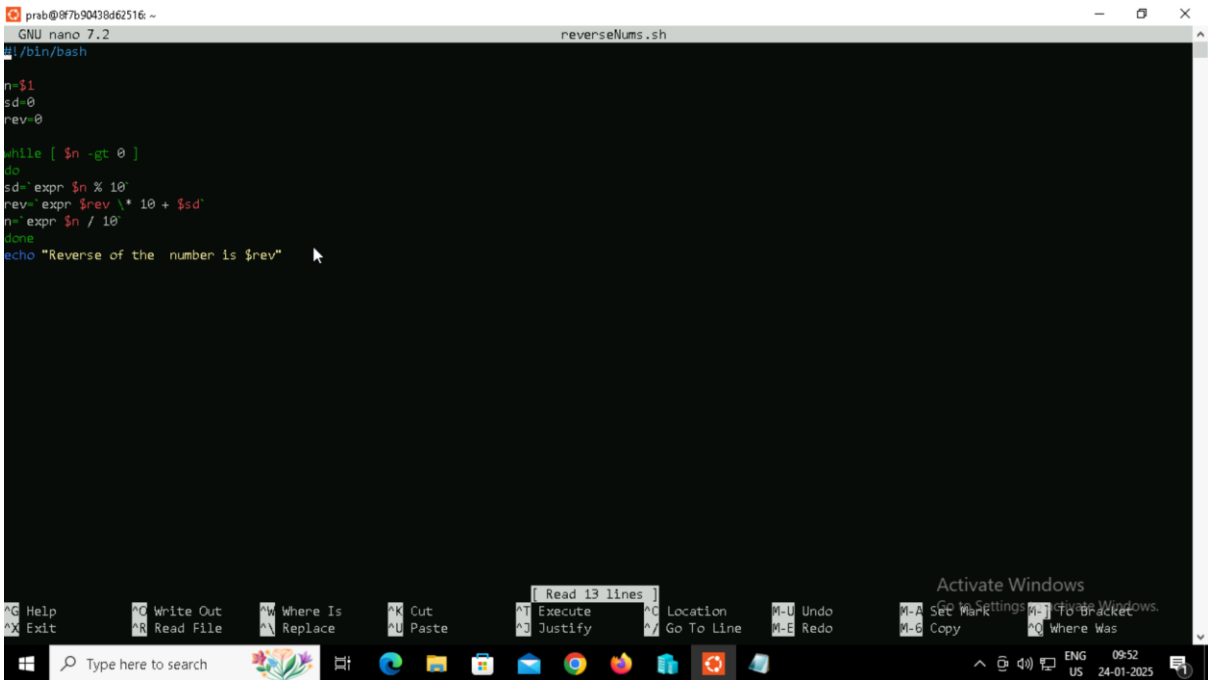
prab@8f7b90438d62516: ~

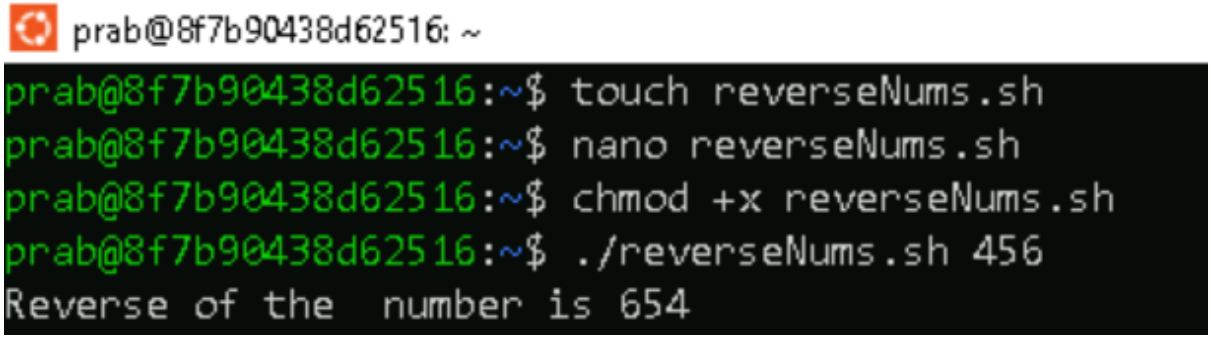
```
  GNU nano 7.2
#Shell program to add two integer values
#and check if any input is given or not



#!/usr/bin/bash
read -p "Input1 : " inp1
if [[ -z $inp1 ]]
then
        echo "Input 1 cannot be empty, plese enter an integer."
        exit
fi

read -p "Input2 : " inp2
if [[ -z $inp2 ]]
then
        echo "Input 2 cannot be empty, please enter an integer."
        exit
fi

bc_val=`echo "$inp1+$inp2" | bc`
echo "BC Value : $bc_val"

expr_val=`expr $inp1 + $inp2`
echo "EXPR Value : $expr_val"
```

prab@8f7b90438d62516: ~

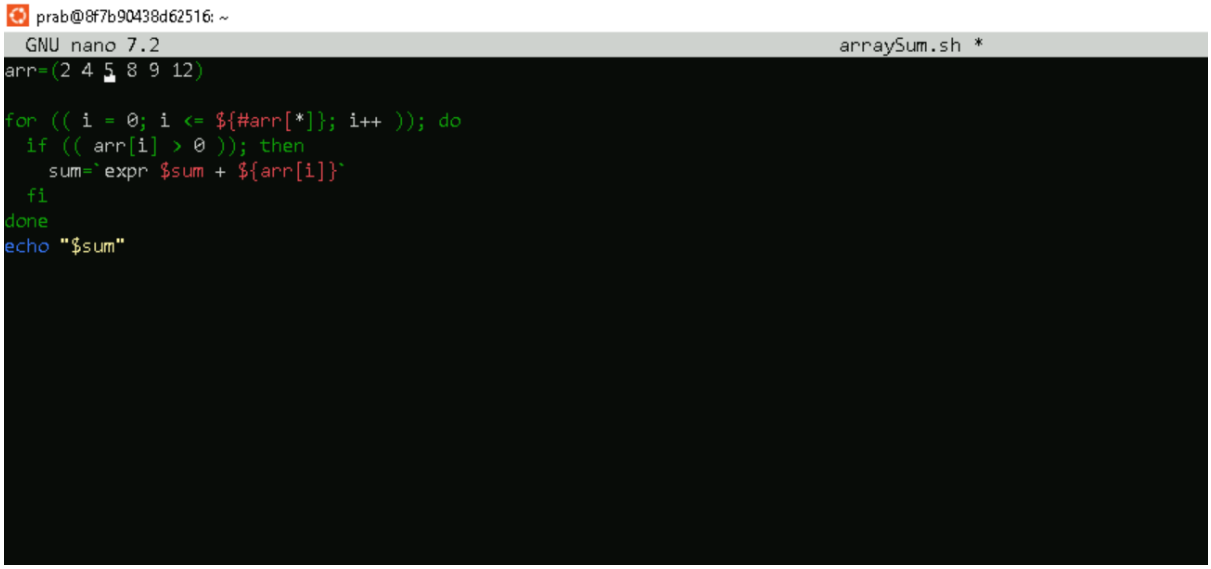
```
prab@8f7b90438d62516:~$ touch arithmatic.sh
prab@8f7b90438d62516:~$ nano arithmatic.sh
prab@8f7b90438d62516:~$ chmod a+x arithmatic.sh
prab@8f7b90438d62516:~$ ./arithmatic.sh
Input1 : 3
Input2 : 5
BC Value : 8
EXPR Value : 8
prab@8f7b90438d62516:~$
```

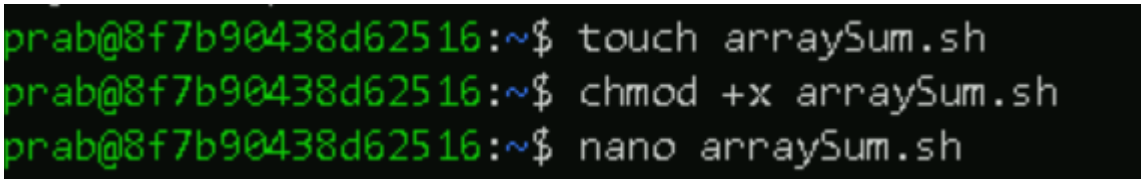
3) Reverse the number

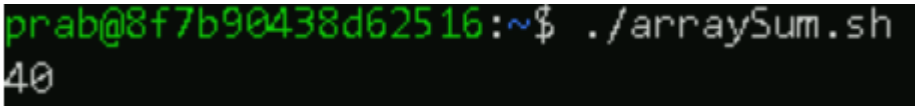




4) Array Sum


prab@8f7b90438d62516: ~
GNU nano 7.2
arraySum.sh *
arr=(2 4 5 8 9 12)
for ((i = 0; i <= ${#arr[*]}; i++)); do
if ((arr[i] > 0)); then
sum=`expr $sum + ${arr[i]}`
fi
done
echo "$sum"


prab@8f7b90438d62516:~$ touch arraySum.sh
prab@8f7b90438d62516:~$ chmod +x arraySum.sh
prab@8f7b90438d62516:~$ nano arraySum.sh


prab@8f7b90438d62516:~$ ./arraySum.sh
40

5) Bubble Sort

prab@8f7b90438d62516: ~

GNU nano 7.2 bubble_sort.sh

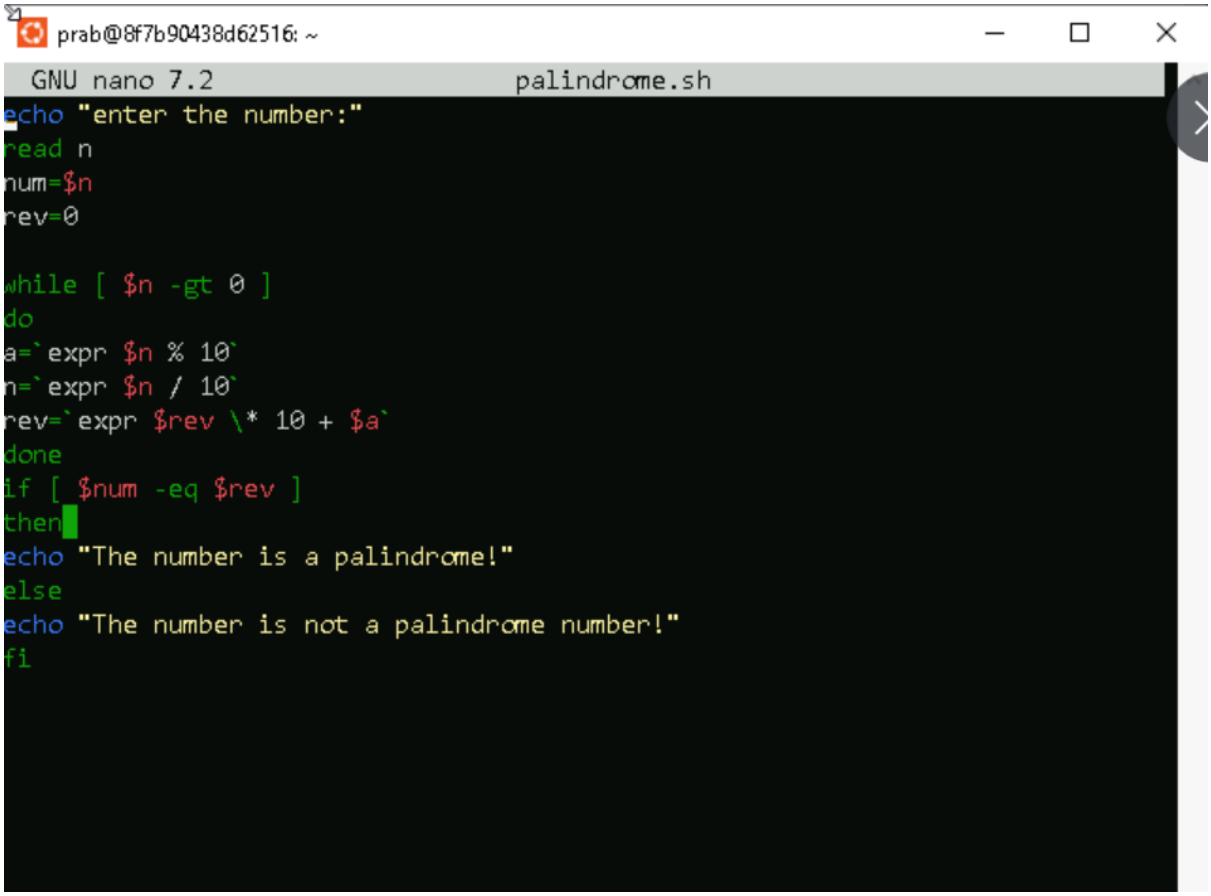
```
declare -a arr
arr=(10 8 20 100 12)

echo "Enter array:"
echo ${arr[@]}

for((i=0; i<5;i++))
  do
     for((j=0;j<5-i-1;j++))
       do
          if [ ${arr[j]} -gt ${arr[$((j+1))]} ];
             then
                    temp=${arr[j]}
                    arr[$j]=${arr[$((j+1))]}
                    arr[$((j+1))]=$temp
fi
done
done
echo "Sorted Array:"
echo ${arr[@]}
```

```
prab@8f7b90438d62516:~$ touch bubble_sort.sh
prab@8f7b90438d62516:~$ chmod +x bubble_sort.sh
```

```
prab@8f7b90438d62516:~$ nano bubble_sort.sh
```

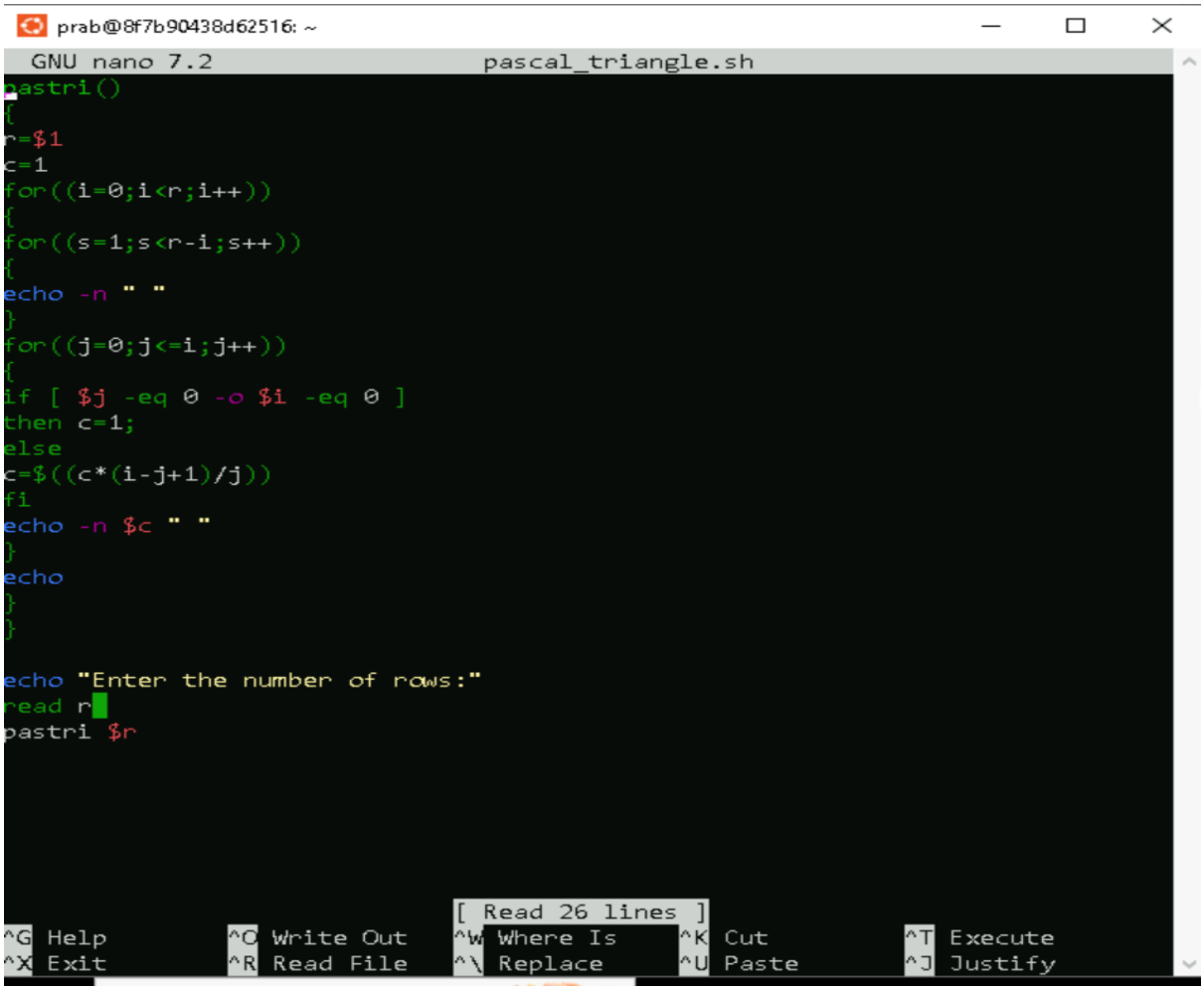
```
prab@8f7b90438d62516:~$ ./bubble_sort.sh
Enter array:
10 8 20 100 12
Sorted Array:
8 10 12 20 100
```

6) Palindrome




```
prab@8f7b90438d62516:~$ touch palindrome.sh
prab@8f7b90438d62516:~$ chmod +x palindrome.sh
prab@8f7b90438d62516:~$ nano palindrome.sh
prab@8f7b90438d62516:~$ ./palindrome.sh
enter the number:
414
The number is a palindrome!
```

7) Pascal Triangle




```
prab@8f7b90438d62516:~$ chmod a+x pascal_triangle.sh
prab@8f7b90438d62516:~$ nano pascal_triangle.sh
prab@8f7b90438d62516:~$ ./pascal_triangle.sh
Enter the number of rows:
3
  1
 1  1
1  2  1
prab@8f7b90438d62516:~$ ./pascal_triangle.sh
Enter the number of rows:
5
    1
   1  1
  1  2  1
 1  3  3  1
1  4  6  4  1
```