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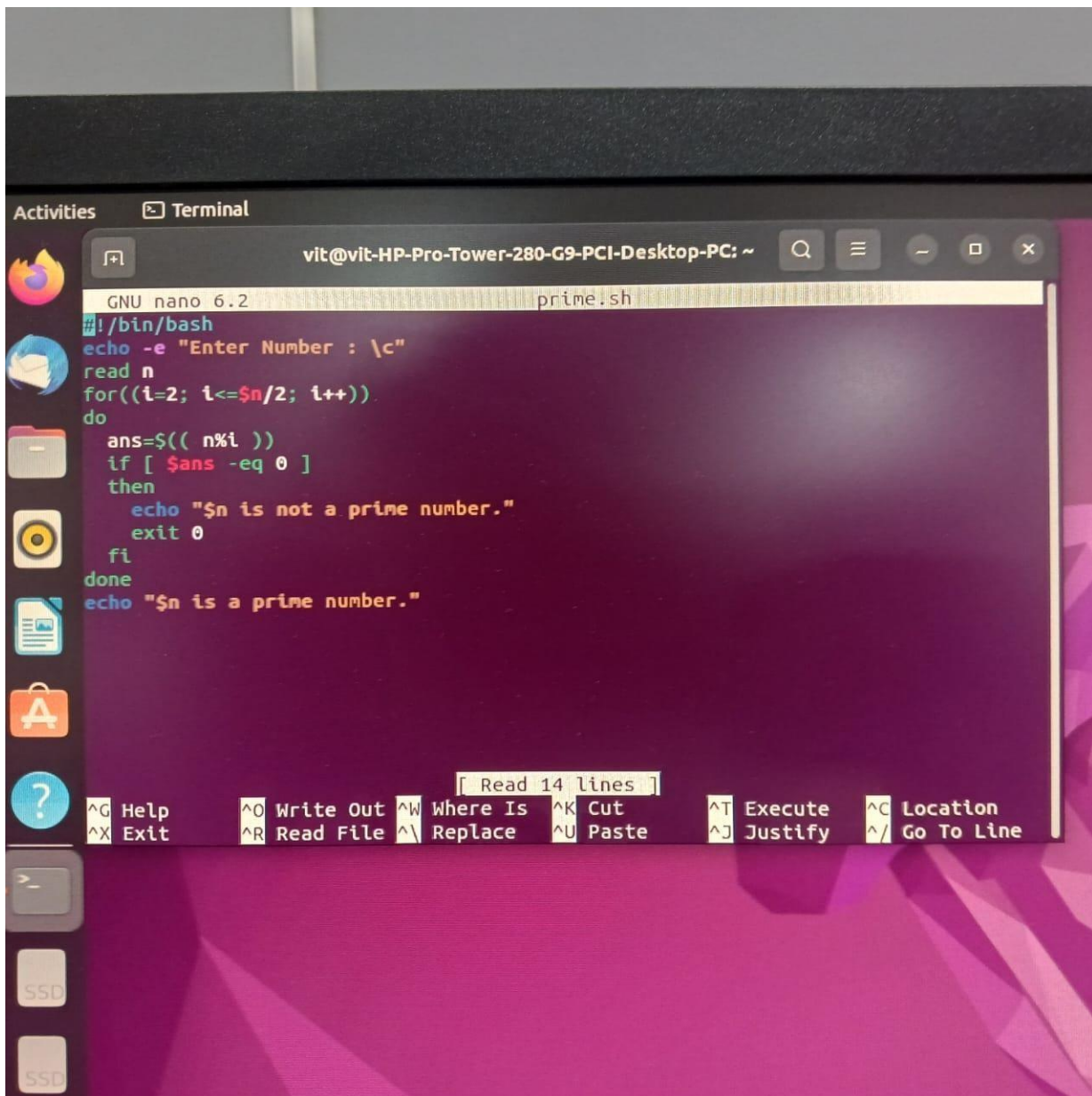
Class: - AIDS/C

Roll Number: - 77

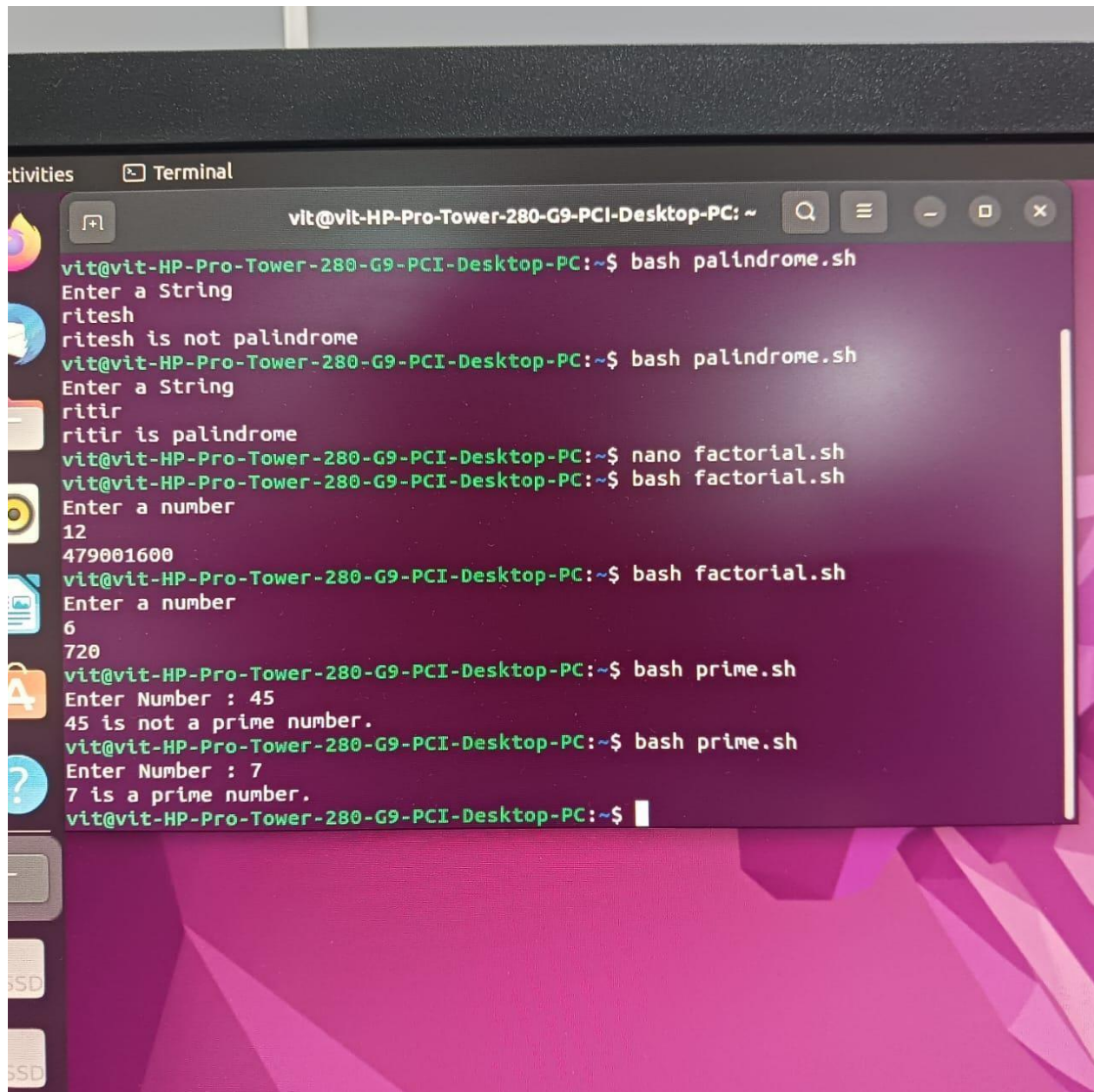
GR Number: - 12110333

1. Prime Number

Code: -



Execution :-



```
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC: ~  
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ bash palindrome.sh  
Enter a String  
ritesh  
ritesh is not palindrome  
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ bash palindrome.sh  
Enter a String  
ritir  
ritir is palindrome  
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ nano factorial.sh  
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ bash factorial.sh  
Enter a number  
12  
479001600  
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ bash factorial.sh  
Enter a number  
6  
720  
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ bash prime.sh  
Enter Number : 45  
45 is not a prime number.  
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ bash prime.sh  
Enter Number : 7  
7 is a prime number.  
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$
```

2. Factorial Number

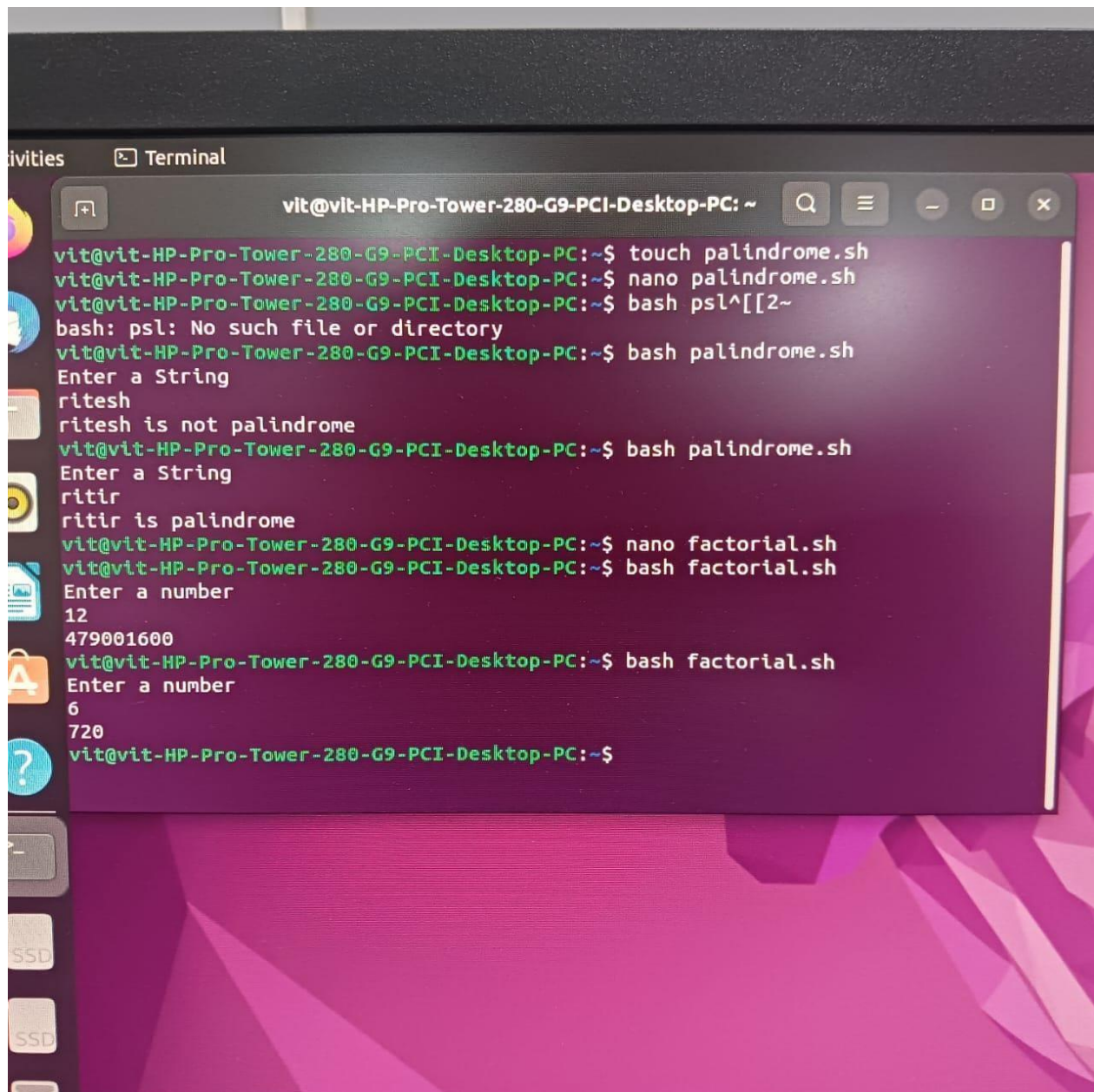
Code :-

```
GNU nano 6.2 factorial.sh
echo "Enter a number"
read num
fact=1
for((i=2;i<=num;i++))
{
    fact=$((fact * i))
}
echo $fact
```

[Read 14 lines]

^G Help	^O Write Out	^W Where Is	^K Cut	^T Execute	^C Location
^X Exit	^R Read File	^_ Replace	^U Paste	^J Justify	^_ Go To Line

Execution :-



The image shows a terminal window titled "Terminal" with the prompt "vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC: ~". The user has created a file named "palindrome.sh" and executed it. The script prompts for a string and checks if it is a palindrome. The user enters "ritesh", and the script outputs "ritesh is not palindrome". The user then enters "ritir", and the script outputs "ritir is palindrome". The user then creates a file named "factorial.sh" and executes it. The script prompts for a number and calculates its factorial. The user enters "12", and the script outputs "479001600". The user then enters "6", and the script outputs "720".

```
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC: ~  
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ touch palindrome.sh  
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ nano palindrome.sh  
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ bash psl^[[2~  
bash: psl: No such file or directory  
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ bash palindrome.sh  
Enter a String  
ritesh  
ritesh is not palindrome  
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ bash palindrome.sh  
Enter a String  
ritir  
ritir is palindrome  
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ nano factorial.sh  
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ bash factorial.sh  
Enter a number  
12  
479001600  
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ bash factorial.sh  
Enter a number  
6  
720  
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$
```

3. Palindrome Code :-

Code :-

```
GNU nano 6.2      palindrome.sh
#!/bin/bash
echo "Enter a String"
read input
reverse=""

len=${#input}
for (( i=$len-1; i>=0; i-- ))
do
    reverse="$reverse${input:$i:1}"
done
if [ $input == $reverse ]
then
    echo "$input is palindrome"
else
    echo "$input is not palindrome"
fi
```

Read 17 lines

^G Help	^O Write Out	^W Where Is	^K Cut	^T Execute	^C Location
^X Exit	^R Read File	^Y Replace	^U Paste	^J Justify	^_ Go To Line

Execution :-

ties Terminal

```
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC: ~  
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ touch palindrome.sh  
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ nano palindrome.sh  
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ bash psl^[[2~  
bash: psl: No such file or directory  
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ bash palindrome.sh  
Enter a String  
ritesh  
ritesh is not palindrome  
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ bash palindrome.sh  
Enter a String  
ritir  
ritir is palindrome  
vit@vit-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$
```