Green University

CLP

Course Title: Operating System

Course Code: CSE 310

Section: PC DA

Submitted to

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Write a program in a bash script that prints the following patterns using a nested loop if the user input is n = 5.

```
#!/bin/bash
echo "Enter your an integer number to generate the rows: "
read n
count=0
for ((i = $n; i ≥ 1; i--)); do
   for ((j = $i; j ≥ 1; j--)); do
       sum=$(($count + $j))
       echo -n $sum " "
   done
   ((count++))
   echo
done

# number=1
# rows=5
# for ((i = rows; i ≥ 1; i--)); do
#     for ((j = 1; j ≤ i; j++)); do
#         echo -n "$number "
#         number=$((number + 1))
#     done
#     number=1
#     echo
# done
```

Output:

```
┌─naz365@nazmul-hossain ~/University Fall 2021/Operating System/Lab Class/Clp  ‹main*›
└─➤  ./printPatterns.sh
Enter your an integer number to generate the rows:
5
5  4  3  2  1
5  4  3  2
5  4  3
5  4
5
```

Write a bash program to read a number n from a user, calculate the sum of the following series up to n-th term, and print the sum at the end: Sum = 1^2 + 4^2 + 9^2 + 16^2 + ...

```
#!/bin/bash
echo -n "Enter an integer number please: "
read number
sum=0
for (( i=1; i<=$number; i++ ))
do
  sum=$(($sum+($i*$i)**2))
done
echo "The sum of the nth number $number is: $sum"
```

Output:

```
┌─naz365@nazmul-hossain ~/University Fall 2021/Operating System/Lab Class/Clp  ‹main*›
└─➤  ./printSum.sh
Enter an integer number please: 4
The sum of the nth number 4 is: 354
┌─naz365@nazmul-hossain ~/University Fall 2021/Operating System/Lab Class/Clp  ‹main*›
└─➤
```