বরেন্দ্র বিশ্ববিদ্যালয়
VARENDRA UNIVERSITY

Dept. of CSE
Varendra University

Department of Computer Science and Engineering

29th Batch

Lab Report 2

Course title : Artificial Intelligence Lab
Course Code : CSE - 414

Submitted By	Submitted To
Name : Md. Nahid Hasan ID : 221311131 Section : D Semester : 8th Batch : 29th	Name : Md. Mahfujur Rahman Designation : Lecturer, Varendra University, Rajshahi. Name : D.M. Asadujjaman Designation : Lecturer, Varendra University, Rajshahi.

Signature

Signature

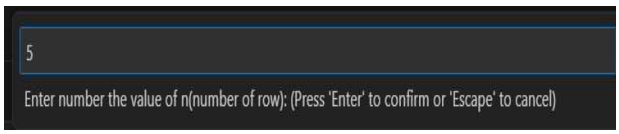
➢ **Question:** Constructing a factorial pyramid with respect to palindrome pyramid and find out if your id last 2 digits come under the factorial pyramid

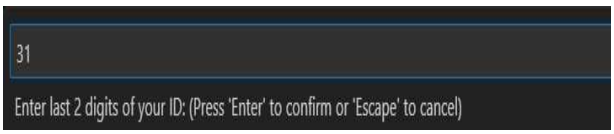
❖ **Solution(Code):**

```
n = int(input("Enter number the value of n(number of row): "))
print("Find factorial for the value:", n)
def factorial_cal(num):
    value = 1
    for i in range(1, num + 1):
        value *= i
    return value

factorial_numbers = []
for i in range(1, n + 1):
    for j in range(n, i, -1):
        print(' ', end=" ")

    temp = []
    for number in range(1, i + 1):
        factorial = factorial_cal(number)
        temp.append(factorial)
        factorial_numbers.append(factorial)
        print(factorial, end=" ")

    temp.sort(reverse=True)
    for i in range(1, len(temp)):
        print(temp[i], end=" ")
    print()

print()
```

```
id = input("Enter last 2 digits of your ID: ")
print("Last 2 digit of id is", id)
if id in factorial_numbers:
    print("Last 2 digits of id =", id, "found!")
else:
    print("Last 2 digits of id =", id, "not found!")
```

❖ Input & Output:






```
Find factorial for the value: 5
        1
      1 2 1
    1 2 6 2 1
  1 2 6 24 6 2 1
1 2 6 24 120 24 6 2 1

Last 2 digit of id is 31
Last 2 digits of id = 31 not found!
```