

## IDC101-Introduction to computers (Shell scripting and Python programming)

### Lab tasks – Session 04

December 5-6 2022

- Name your program as rollNo-WS-No-QNo (for example, if you are writing program for Q1, then, you should name it as rollNo-WS-04-Q1.sh)

Q 1. Find the objective of shell script given below. Write the code and fill in appropriate values with echo.

```
#!/bin/bash
read -p 'Enter natural number: ' num
state=0
for i in `seq 2 $((num-1))`; do
    if [[ $num%i -eq 0 ]] ;then
        state=$((state+1))
    fi
done
if [[ $state -eq 0 ]]; then
    echo '_____'
else
    echo '_____'
fi
```

Finish any pending Shell script and submit it within during this week practical sessions.

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### Learning Python

- Set up Google colab (See installation on Google classroom under Lecture Notes)
- Open a new python notebook by clicking 'File->New Notebook'. Rename the file (see the top left-most part (Untitled.ipynb)). Change Untitled to your roll number-WS4.
- Learn to use How to write 'Text' and 'Code'
- Use python as calculator. Try various mathematical operators given below:
  - Multiplication (\*)
  - Division (/)
  - Addition (+)
  - Subtraction (-)
  - Power (\*\*) For example:  $2^3$  is written as  $2^{**}3$
  - Floor or Integer division (//) returns Integer for any division
- Use assignment operator and print statement. The print statement is same as 'echo' in python but more powerful than 'echo'. Try following given statements given below. (Observe and learn, how to assign variables).

```
a = 2
print(a)
a = b = 2
print(a,b)
a, b = 2,3
print(a,b)
```

Q 2. Write the output of following python program:

```
x=0  
x=x+1  
x=x+2  
x=x+3  
print(x)
```

Q 3. Find sum and average of 5 numbers as entered by you.