

## Lecture Hub (Basic Python Exercise)

1. Write a Python program that prints your name

### Calculations

2. Make a program that solves and shows the summation of  $64 + 32$
3. Write a Python program that takes the radius of a circle as input from the user and calculates its area. Use the formula:  $\text{area} = \pi * \text{radius}^2$ .

### String

- 1 Write a Python program to reverse this string '*Lecture Hub*' to *buh erutcel*.
- 2 Remove '*Hub*' from '*Lecture Hub*'

Given alphabet = "abcdefghijklmnopqrstuvwxyz".

- 3 Write a python program that converts this to uppercase (hint: .upper)
- 4 Count how many items in alphabet (hint: len)

Given

paragraph = "As the sun rose over the horizon, a sense of excitement filled the air. Today was the day they had been waiting for, the day they would embark on their great adventure. They packed their bags with provisions and set out on the open road, ready to embrace whatever challenges lay ahead. Each step brought them closer to the unknown, each turn in the path promising a new adventure waiting to be discovered. With hearts full of anticipation and minds open to the possibilities, they journeyed onward, eager to write the next chapter of their adventure."

- 5 Count how many times '*adventure*' appears in the *paragraph* (hint: .count)
- 6 Replace *adventure* with *journey* in paragraph (hint .replace)

### List

country\_names= ['United States', 'Canada', 'Brazil', 'India', 'Japan', 'Australia', 'Germany', 'France', 'Italy', 'South Africa']

country\_abrev= ['US', 'Can', 'Bra', 'Ind', 'Jap', 'Aus', 'Ger', 'Fra', 'Ita', 'SA']

- 1 count number of items in *country\_names* and *country\_abrev*
- 2 sort *country\_names* and *country\_abrev* in alphabetical order (hint .sort)
- 3 sort *country\_names* and *country\_abrev* in reverse order (hint .sort)
- 4 create a dictionary that map *country\_abrev* as key and *country\_names* as values (hint: dict())

### Loops & If statements

- 1 Create a loop that counts from 0 to 100
- 2 Make a multiplication table using a loop
- 3 Create two (2) lists called *even\_num* and *odd\_num*, create a loop between 1 and 100 store all the even numbers in *even\_num* and odd numbers in *odd\_num*.
- 4 Sum all items in *even\_num*
- 5 sum all items in *odd\_num*

### Functions

- 6 Create a function that takes in two (2) number and returns a sum of both numbers
- 7 Create a function that takes a number and returns the number multiplied by 5