



EAST WEST UNIVERSITY

Department of CSE Lab Report

Course Code and Name: CSE303 – Statistics for Data Science	
Lab: 02 Intermediate Python Programming	
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Section: 02	Date of Submission: 21/10/2022

Source code: [CSE303-Statistics-for-Data-Science-LAB/Lab2 at main · IntesarEWU/CSE303-Statistics-for-Data-Science-LAB \(github.com\)](#)

LABHW:

1.

```
Python
a = int(input("Enter 1st number: "))
b = int(input("Enter 2nd number: "))
c = b*a
print('1st input: ',a,'\n2nd input: ',b)
if (c > 1000):
    print(a+b)
else:
    print(c)

1st input: 12
2nd input: 30
360
```

2.

```
Python
import math
radius = float(input('Enter radius of a circle: '))
print('Radius: ',radius)
area = math.pi*radius*radius
perimeter = 2*math.pi*radius
print('Area: ',area,'\nPerimeter: ',perimeter)

Radius: 23.0
Area: 1661.9025137490005
Perimeter: 144.51326206513048
```

3.

```
Python
p = float(input("Enter the principal amount: "))
r = float(input("Enter the rate of interest: "))
t = float(input("Enter the number of years: "))
print('principal: ',p,'\nRate of interest: ',r,'\nNumber of years:',t)
ci = p * (pow((1 + r / 100), t))

print("Compound Interest : ",ci)

principal: 20.0
Rate of interest: 25.0
Number of years: 2.0
Compound Interest : 31.25
```

4.

```
Python
n = int(input("Enter Any Positive Number: "))
print("Entered Number: ",n)
sum=0
for i in range(n):
    i=i+1
    sum=sum+(i*i)
print(sum)

Entered Number: 5
55
```

5.

```
def prime_find_2019160043(N):
    for x in range(2,N):
        if(N%x == 0):
            return 'Not Prime'
        else:
            return 'prime'
N = int(input('Enter a number: '))
print('Entered Number: ',N)
print(N,'is',prime_find_2019160043(N))
```

[34] ✓ 12s Python

... Entered Number: 6
6 is Not Prime

6.

```
def fibonacci(n):
    if(n==0):
        return 0
    elif(n==1 or n==2):
        return 1
    else:
        return fibonacci(n-1)+fibonacci(n-2)
n=int(input('Enter integer: '))
print('Entered Number: ',n)
print(n,'\bth Fibonacci:',fibonacci(n))
```

[3] ✓ 4.7s Python

... Entered Number: 9
9th Fibonacci: 34

7.

```
list = [1,2,3]
sum = 0
for x in list:
    sum=sum+x
print(sum)
```

[11] ✓ 0.5s Python

... 6

8.

```
list = [1,3,1,3,1,3]
sum=0
j=0
for x in list:
    if j % 2 == 0:
        sum+=x
        j+=1
    print(sum)
```

[18] ✓ 0.4s Python

... 3

Python String capitalize(): Converts first character to Capital Letter

```
Python String capitalize(): Converts first character to Capital Letter

> ~
str = 'this is a line'
print(str.capitalize())
[28] ✓ 0.4s Python
... This is a line
```

Python String casefold(): converts to case folded strings

```
Python String casefold(): converts to case folded strings

> ~
str = 'This is a LINE'
print(str.casefold())
[23] ✓ 0.3s Python
... this is a line
```

Python String center(): Pads string with specified character

```
Python String center(): Pads string with specified character

> ~
str = 'This is a LINE'
print(str.center(21, "#"))
[33] ✓ 0.4s Python
... #####This is a LINE###
```

Python String count(): returns occurrences of substring in string

```
Python String count(): returns occurrences of substring in string

> ~
str = 'This is a LINE'
print(str.count('is'))
print(str.count('is',4))
[38] ✓ 0.4s Python
... 2
... 1
```

Python String encode(): returns encoded string of given string

```
Python String encode(): returns encoded string of given string

> ~
str = 'This is a LINE'
print(str.encode())
[56] ✓ 0.4s Python
... b'This is a LINE'
```

Python String endswith(): Checks if String Ends with the Specified Suffix

```
Python String endswith(): Checks if String Ends with the Specified Suffix

> ~
str = 'This is a LINE'

print('Text ends with "E": ',str.endswith("E"))
print('Text ends with ".": ',str.endswith("."))

[4] ✓ 0.3s Python

... Text ends with "E": True
Text ends with ".": False
```

Python String expandtabs(): Replaces Tab character With Spaces

```
Python String expandtabs(): Replaces Tab character With Spaces

> ~
str = 'T\this is a LINE'

print('Text ends with "E": ',str.expandtabs(0))
print('Text ends with "E": ',str.expandtabs()) #by default 8
print('Text ends with "E": ',str.expandtabs(16))

[13] ✓ 0.3s Python

... Text ends with "E": This is a LINE
Text ends with "E": T his is a LINE
Text ends with "E": T his is a LINE
```

Python String find(): Returns the index of first occurrence of substring

```
Python String find(): Returns the index of first occurrence of substring

> ~
str = 'This is a LINE'

print(str.find("a"))

[17] ✓ 0.5s Python

... 9
```

Python String format(): formats string into nicer output

```
Python String format(): formats string into nicer output

> ~
a= int(input("Enter a number: "))
b= input("Enter any string: ")

print('1st input "{}"\n2nd input {}'.format(a,b))

[19] ✓ 5.1s Python

... 1st input "32"
2nd input "Hello world"
```

Python String format_map(): Formats the String Using Dictionary

```
Python String format_map(): Formats the String Using Dictionary

+ Code + Markdown

> ~
a = {'x': 'Intesar','y': 'Khan'}

print("{}'s last name is {}".format_map(a))

[57] ✓ 0.3s Python

... Intesar's last name is Khan
```

Python String index(): Returns Index of Substring

```
Python String index(): Returns Index of Substring

> ~
str = 'This is a line'
print("position of 'a': ",str.index("a"))
[23] ✓ 0.2s Python
... position of 'a': 8
```

Python String isalnum(): Checks Alphanumeric Character

```
Python String isalnum(): Checks Alphanumeric Character

> ~
str = input("Enter anything: ")
print('You Entered: ',str)
print('Alphanumeric: ',str.isalnum())
[26] ✓ 5.5s Python
... You Entered: #ok
Alphanumeric: False
```

Python String split(): Splits String from Left

```
Python String split(): Splits String from Left

> ~
str = input("Enter anything: ")
print('You Entered: ',str)
list = str.split()
print(list)
[30] ✓ 11.4s Python
... You Entered: this is a line
['this', 'is', 'a', 'line']
```

Python String join(): Returns a Concatenated String

```
Python String join(): Returns a Concatenated String

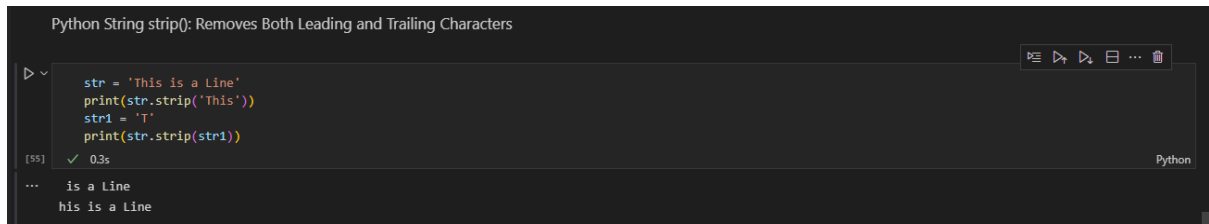
> ~
list = ('This','is','a','line')
print(" ".join(list))
[31] ✓ 0.3s Python
... This is a line
```

Python String replace(): Replaces Substring Inside

```
Python String replace(): Replaces Substring Inside

> ~
str = 'This is a a Line'
print('Before Replace: ',str)
str = str.replace('Line', 'sentence')
print('After Replace: ',str)
[33] ✓ 0.4s Python
... Before Replace: This is a a Line
After Replace: This is a a sentence
```

Python String strip(): Removes Both Leading and Trailing Characters



The screenshot shows a Python IDE window titled "Python String strip(): Removes Both Leading and Trailing Characters". The code editor contains the following Python code:

```
str = 'This is a Line'  
print(str.strip('This'))  
str1 = 'T'  
print(str.strip(str1))
```

Below the code editor, the output is displayed:

```
[55] ✓ 03s Python  
... is a Line  
his is a Line
```

The output demonstrates that the first call to `strip('This')` removes the leading 'T' and trailing 's' from the string 'This is a Line', resulting in 'is a Line'. The second call to `strip(str1)` where `str1` is 'T' removes only the leading 'T', resulting in 'his is a Line'.