Intro to 'Strings'

- Inbuilt Functions:
- len
- capitalize
- title
- count
- replace
- split

```
# Quiz

# ord function prints corresponding int value

ord('a')
```

```
97
```

```
ord('z')
```

```
122
```

```
ord('y')
```

```
121
```

```
ord('A')
```

```
65
```

```
ord('Z')
```

```
90
```

```
'a' == 97
```

```
False
```

```
s = "Rahul"

len(s)

s1 = "rahul janghu"

len(s1)
```

```
12
```

```
s = """Rahul janghu"""
```

```
type(s)
```

```
str
```

```
# Multiline string
```

```
# m = "
# Rahul
# "
```

```
m = """
Rahul is
a
nice
boy
"""
```

```
type(m)
```

```
str
```

```
m
```

```
'\nRahul is \na \nnice\nboy\n'
```

```
print(m)
```

```
Rahul is
a
nice
boy
```

```
# chr function is used to get the character value associated with
integer
```

```
chr(97)
```

```
'a'
```

```
chr(300)
```

```
'Ĭ'
```

```
ord('ए')
```

```
2319
```

```
# capitalize
s = 'rahul janghu'
s.capitalize()
'Rahul janghu'
"rAHuL".capitalize()
'Rahul'


# title
s
'rahul janghu'
s.title()
'Rahul Janghu'



# count
# quiz
s
'rahul janghu'
s.count('A')
0
s.count('a')
2
s.count("ra")
1
```

```
s.count('rahul janghu')
1

# replace
# replace(old, new)
s
'rahul janghu'
id(s)
140273922331504
s = s.replace('a', 'A')
type(s)
str
s
'rAhul jAnghu'
id(s)
140273930556656

# This is power of immutability

# split
s
'rAhul jAnghu'
s = 'Rahul Janghu'
type(s)
str
s.split()
['Rahul', 'Janghu']
"1 2 3 4 5".split()
```

```
['1', '2', '3', '4', '5']
```

```
"Rahul".split()
```

```
['Rahul']
```

```
s.split('a')
```

```
['R', 'hul J', 'nghu']
```

```
s
```

```
'Rahul Janghu'
```

```
s.split('Ra')
```

```
['', 'hul Janghu']
```

```
s.split('s')
```

```
['Rahul Janghu']
```

Challenge: Warmup

- Given a string as input, print it 3 times without any space. (can't use a loop)
- Input: "India"
- Ouput: "IndiaIndiaIndia"

```
# String concatenation
```

```
# +, *
```

```
country = input()
```

```
 India
```

```
country
```

```
'India'
```

```
country + country + country
```

```
'IndiaIndiaIndia'
```

```
country * 3
```

```
'IndiaIndiaIndia'
```

```
# Quiz

city = "Phoenix"
print(len(city*3))
```

```
21
```

```
len("Phoenix")
```

```
7
```

```
len(city)
```

```
7
```

Challenge 1:

- Take a string as input and print all the characters in a newline.
- Input: "India"
- Output:
- I
- n
- d
- i
- a

```
# strings are iterable

country
```

```
'India'
```

```
# print(dir(country))

for i in country:
    print(i)
```

```
I
n
d
i
a
```

Challenge 2:

- Given a string as input, print the first and the last character of the string
- Input: "India"

- Output:
- I
- a

```
country
```

```
'India'
```

```
country[0]
```

```
'I'
```

```
country[1]
```

```
'n'
```

```
country[0]
```

```
'I'
```

```
country[-1]
```

```
'a'
```

```
# Hw: Print 0th and last index values using iteration
```

Challenge Palindrome

```
# Quiz

check = input()

if check == check[::-1]:
    print("Yes")
else:
    print("No")
```

```
 radar
```

```
Yes
```

Challenge 3:

- Take a string as input and print the ASCII value of the characters in it.

```
# chr

# ord

string = input()
```

```
 Rahul
```

```
ord(string[0])
```

```
82
```

```
ord(string[1])
```

```
97
```

```
for i in string:
    print(ord(i))
```

```
82
97
104
117
108
```

```
for i in string:
    print(i, ord(i), sep=" -> ")
```

```
R -> 82
a -> 97
h -> 104
u -> 117
l -> 108
```

```
# Find total of ASCII value of string: "Rahul Janghu"
```

Challenge: Last

- Given a string convert all caps alphabets into lower case

```
s = "RahUl"
```

```
for i in s:
    print(i, ord(i))
```

```
R 82
a 97
h 104
U 85
l 108
```

```
# Get all the cap
```

```
for i in s:
    # Getting upper case values only
    if ord(i) >= 65 and ord(i) <= 90:
        print(i)
```

```
R
U
```

```
# Convert them into lower case
```

```
for i in s:
    # Getting upper case values only
    if ord(i) >= 65 and ord(i) <= 90:
        asci = ord(i)
        smal_asci = asci + 32
        print(chr(smal_asci))
```

```
r
u
```

```
# Get a new string with all the letters in lower case
```

```
s
```

```
'RahUl'
```

```
for i in s:
    # Getting upper case values only
    if ord(i) >= 65 and ord(i) <= 90:
        asci = ord(i)
        smal_asci = asci + 32
        print(chr(smal_asci))
    else:
        print(i)
```

```
r
a
h
u
l
```

```
# Final code

new = ""

for i in s:
    # Getting upper case values only
    if ord(i) >= 65 and ord(i) <= 90:
        asci = ord(i)
        smal_asci = asci + 32
        new += chr(smal_asci)
    else:
        new += i
print(new)
```

```
rahul
```

```
def convert_lower(s):
    new = ""

    for i in s:
        # Getting upper case values only
        if ord(i) >= 65 and ord(i) <= 90:
            asci = ord(i)
            smal_asci = asci + 32
            new += chr(smal_asci)
        else:
            new += i
    return new

convert_lower("RaHuL JanGhu")
```

```
'rahul janghu'
```

```
"r" + "a"
```

```
'ra'
```

```
# lower
```

```
s.lower()
```

```
'rahul'
```

```
# HW: Make functions to check if a character is in upper case, lower
```

```
65
```

```
65
```

```
'A'
```

```
'A'
```