

# PYTHON – STRING FUNCTIONS

## **String:**

Set of unicode characters

Includes Letters, Numbers, Special Characters or combination of these types

## **Representation**

with in single / double/triple single/triple double quotes

ex: 'apple' "apple" 'apple' """"apple""""

'A140'

Initialization: Syntax: **Var\_name='text'**

Ex: Name="India"

I	n	d	i	a
0	1	2	3	5

Accessing : **var\_name[index]**

Str1="india"

print(str1)

print(str1[3])

print(str1[1:3])

India

i

nd

>>>

|

# String Operations

- **Slicing**

- Used to access a range of string

- **strvar[start:finish-1]**

- Ex: `print(str1[1:3])`

- **Concatenation**

- Used to combine the strings

- **var-=strvar1+strvar2+....+strvarN**

- **Replication**

- Used to repeat a string N number of times (\*)

- **Var1=Strvar\*N**

```
>>> s1="HAI"
```

```
>>> s2="WELCOME"
```

```
>>> print(s1+s2)
```

```
HAIWELCOME
```

```
>>> print(s1*3)
```

```
HAIHAIHAI
```

# String Operations

- **Escape sequence**

- Control characters, not displayed on screen
- Performs specific task
- Used to design the output
- ‘\n’ ‘\a’ ‘\t’

```
>>> print("hai\t\twelcome")
hai                               welcome
>>> |
```

- **Format method**

- Used to format / design output
- **Syntax: format(value , format specifier)**
- **Ex:alignment**

```
str1="hai"
print(format(str1,'<20'))
print(format(str1,'>20'))
print(format(str1,'^20'))
```

```
hai
hai
hai
>>> |
```

---

# String Built in Functions

- 1. len()** **len(strvar)**  
Returns No. of chars
- 2. capitalize()** **strvar.capitalize()**  
Capitalize the string (turn first char into upper case)
- 3. upper()** **strvar.upper()**  
Convert lower case into upper case
- 4. lower()** **strvar.lower()**  
Convert upper case into lower case
- 5. title()** **strvar.title()**  
Convert the string into title case

```
s1="hai" length=len(s1)
```

```
print("\t\t Length is=\t\t",length)
```

```
print("\t\tCapital=\t\t",s1.capitalize())
```

```
s2="HAI"
```

```
print("\t\tLower=\t\t",s2.lower ())
```

```
print("\t\tUpperr=\t\t",s1.upper())
```

```
s3="i am an indian"
```

```
print("\t\tTitle=\t\t",s3.title())
```

```
Length is=          3
Capital=           Hai
Lower=            hai
Upperr=           HAI
Title=            I Am An Indian
```

# String Built in Functions

- 1. isalnum()** **strvar.isalnum()**  
returns true if the string contains alphabet,numeric
- 2. isalpha()** **strvar.isalpha()**  
returns true if the string contains only alphabet
- 3. isdigit()** **strvar.isdigit()**  
returns true if the string contains only digits
- 4. isupper()** **strvar.isupper()**  
returns true if string is in upper case
- 5. islower()** **strvar.islower()**  
returns true if string is in lower case



```
s1="A130"
```

```
s2="apple"
```

```
s3="1234"
```

```
print("Alnum\t\t=",s1.isalnum())
```

```
print("Alnum\t\t=",s2.isalnum())
```

```
print("Alpha\t\t=",s2.isalpha())
```

```
print("Alpha\t\t=",s1.isalpha())
```

```
print("Digit\t\t=",s1.isdigit())
```

```
print("Digit\t\t=",s3.isdigit())
```

```
print("Upper=\t\t",s2.isupper())
```

```
print("Lower=\t\t",s2.islower())
```

```
Alnum = True
```

```
Alnum = True
```

```
Alpha = True
```

```
Alpha = False
```

```
Digit = False
```

```
Digit = True
```

```
Upper= False
```

```
Lower= True
```

```
>>>
```

# String Built in Functions

## 1. `istitle()`

**`strvar.count(sub(str))`**

returns true if string is in title case

## 2. `isspace()`

**`strvar.isspace()`**

returns true if string is a space

**Ex:**

```
s1="hai Welcome"
```

```
print("Title=\t\t",s1.istitle())
```

```
print("space=\t\t",s1.isspace())
```

---

```
Title=                False
space=                False
>>>
```

# String Built in Functions

## 1. `count()`

**`strvar.count(substr)`**

returns total number of occurrences of the given substring

## 2. `index()`

**`strvar.index(sub[start,end])`**

returns the lowest index of the substring present in the string (first occurrence)

# String Built in Functions

## 1. `endswith()`

**`strvar.endswith(substr)`**

**`strvar.endswith(substr,start,end)`**

returns a boolean value

True- if strvar ends with the substr

False- otherwise

## 2. `find()`

**`strvar.find(substr)`**

returns the lowest index of the substring (first occurrence)

## 3. `split()`

**`strvar.split(str)`**

returns the list of all words in the string using str as a separator

```
s1="String string String string String"
```

```
print(s1.count("string"))
```

```
=====
```

```
2
```

```
print(s1.count("String"))
```

```
3
```

```
print(s1.endswith("string"))
```

```
False
```

```
print(s1.endswith("String",0,27))
```

```
False
```

```
print(s1.endswith("String",0,35))
```

```
True
```

```
print(s1.find("string"))
```

```
7
```

```
['String', 'string', 'String', 'string']
```

```
print(s1.split(' '))
```

```
>>> |
```