

# Experiment no. 2 :- Data types and String operations

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## Data types in python :-

```
In [1]: # Integers
rollNo = 73
print("Type of variable :",type(rollNo))

# String
string = "Altaf" print("Type of variable :
",type(string))

# Float
float = 17.0
print("Type of variable :", type(float))

# Boolean
bool = True
print("Type of variable :",type(bool))

# Complex
complex = 2+3j
print("Type of variable :",type(complex))
```

Type of variable : <class 'int'>  
Type of variable : <class 'str'>  
Type of variable : <class 'float'>  
Type of variable : <class 'bool'>  
Type of variable : <class 'complex'>

## String operations in python :-

```
In [2]: #String repetition
name = " Altaf " repetition =
name*3 print(repetition)

# String indexing
name = "Altaf "
a = name[0]
print("First letter of
string :",a)

# String slicing
name = " Altaf " a =
name[:7]
print(" First 7 characters of string :", a)

# String slicing
name = " Altaf " a =
name[::-1]
print(" Reverse the string :", a)

# 2 step in slicing
name = " Altaf " a =
name[::2]
print("2 steps slicing string output:",a)

#indexing
name = " Altaf " a =
name[-4]
print("Indexing :",a)
```

```
# slicing
name = " Altaf" a =
name [0:6]
print( "slicing:",a)
```

Altaf Altaf Altaf First letter of string : p  
 First 7 characters of string : pratham  
 Reverse the string : hsemahtarp  
 2 steps slicing string output: pahms  
 Indexing : m  
 slicing: pratha

## String functions in python :-

```
In [3]: # uppercase function
a= " Altaf" b=
a.upper()
print("upper_case :",b)

# Lowercase function
a= " ALTAF"
b= a.lower()
print("Lower_case :",b)

# count function
a= " Altaf" b=
a.count("a")
print("Count of a :",b)

#index function
a= " Altaf" b=
a.index("e")
print("Index of e :",b)

#find function
a="Altaf" b=
a.find("e")
print("find index of e :",b)

# replace function
a=" Altaf"
b=a.replace("a","b")
print("In string a replace by b :",b)

# split function
a="Altaf" b=a.split()
print("split string :", b)

# strip fuction
a= "hello"
b= a.strip()
print ("Strip :",b)
```

upper\_case : ALTAF  
 Lower\_case : Altaf Count of a  
 : 2  
 Index of e : 7  
 find index of e : 7  
 In string a replace by b : Altaf Shaikh  
 split string : ['ALTAF', ' Shaikh'] Strip  
 : hello

## Whole Program

```
In [4]: # Integers
rollNo = 16
print("Type of variable : ",type(rollNo))

# String
string = "Altaf" print("Type of variable :
",type(string))

# Float
float = 16.0
print("Type of variable :", type(float))

# Boolean
```

```
bool = True
print("Type of variable :",type(bool))

# Complex
complex = 2+3j
print("Type of variable : ",type(complex))

#String repetition
name = " Altaf " repetition =
name*3 print(repetition)

# String indexing
name = " Altaf" a =
name[0]
print("First letter of string :",a)

# String slicing
name = " Altaf" a =
name[:7]
print(" First 7 characters of string :", a)

# String slicing
name = " Altaf" a =
name[::-1]
print(" Reverse the string :", a)

# 2 step in slicing
name = " Altaf" a =
name[:2]
print("2 steps slicing string output:",a)

#indexing
name = " Altaf" a =
name[-4]
print("Indexing :",a)

# slicing
name = " Altaf" a =
name [0:6]
print( "slicing:",a)

# uppercase function
a = " Altaf" b=
a.upper()
print("upper_case :",b)

# Lowercase function
a = "ALTAF"
b = a.lower()
print("Lower_case :",b)

# count fuction
a = " Altaf" b=
a.count("a")
print("Count of a :",b)

#index function
a = " Altaf" b=
a.index("e")
print("Index of e :",b)

#find fuction
a = " Altaf" b=
a.find("e")
print("find index of e :",b)

# replace function
a = " Altaf" b=a.replace("a","b")
print("In string a replace by b :",b)

# split function
a ="Altaf" b=a.split()
print("split string :", b)

# strip fuction
a = "hello"
b = a.strip()
print ("Strip :",b)
```

Type of variable : <class 'int'>  
Type of variable : <class 'str'>  
Type of variable : <class 'float'>  
Type of variable : <class 'bool'>  
Type of variable : <class 'complex'>  
Altaf Altaf Altaf First letter of string : p  
First 7 characters of string : pratham  
Reverse the string : hsemahtarp  
2 steps slicing string output: pahms  
Indexing : m  
slicing: pratha  
upper\_case : ALTAF  
Lower\_case : Altaf Count a:2  
Index of e : 7  
find index of e : 7  
In string a replace by b : A Altaf split  
string : ['ALTAF', ' Shaikh '] Strip :  
hello