

Enrollment No:=230823007 | Name:-Jainish Barbhaya

Practice Set-5

(1.)Create a list containing several strings. Take
input from the user (search string); display whether
entered string is available in the list or not.

```
l = [1, 2.0, 'have', 'a', 'good', 'day']
s = 'god is the best'

if s in 1:
    print("This is present in the list")
else:
    print("This is not present in the list")

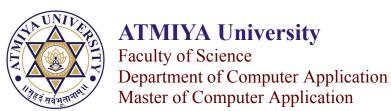
# output:=
This is not present in the list
```

(2.) Accept the string from the user; display the message whether the entered string is palindrome or not.

```
my_str = 'iHaVEgOOdday'
# my str = 'aIbohPhoBiA'
```



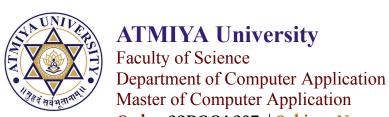
```
my str = my str.casefold()
rev str = reversed(my str)
if list(my str) == list(rev str):
   print("The string is a palindrome.")
else:
  print("The string is not a palindrome.")
# output:=
The string is not a palindrome.
   #OR
The string is a palindrome.
(3.) Accept the string from the user; display the string
in the reverse order.
user input = input("Enter a string: ")
# Display the string in reverse order
reversed string = user input[::-1]
print("Reversed string:", reversed string)
```



```
# output:=
Enter a string: hi hello how are you.
Reversed string: .uoy era woh olleh ih
(4.) Accept the string from the user; allow user to
choose from the following options and perform the task
as per user's choice. i). Convert to the upper case,
ii). Convert to the lower case, iii).
Convert to the swap case, iv). Convert to the title
case
# Accept input from the user
user input = input("Enter a string: ")
# Display options to the user
print("Choose an option:")
print("1. Convert to upper case")
print("2. Convert to lower case")
print("3. Convert to swap case")
print("4. Convert to title case")
# Get user's choice
choice = input("Enter your choice (1/2/3/4): ")
```



```
# Perform the chosen operation
if choice == "1":
    result = user input.upper()
elif choice == "2":
    result = user input.lower()
elif choice == "3":
    result = user input.swapcase()
elif choice == "4":
    result = user input.title()
else:
    result = "Invalid choice"
# Display the result
print("Result:", result)
# output:=
Enter a string: ja is the best friend
Choose an option:
1. Convert to upper case
2. Convert to lower case
3. Convert to swap case
4. Convert to title case
Enter your choice (1/2/3/4): 1
Result: JA IS THE BEST FRIEND
Enter a string: hi mahesh good evenig
```



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Choose an option:

- 1. Convert to upper case
- 2. Convert to lower case
- 3. Convert to swap case
- 4. Convert to title case

Enter your choice (1/2/3/4): 2

Result: hi mahesh good evenig

Enter a string: hi mehesh is good evening Choose an option:

- 1. Convert to upper case
- 2. Convert to lower case
- 3. Convert to swap case
- 4. Convert to title case

Enter your choice (1/2/3/4): 3

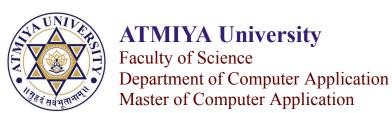
Result: HI MEHESH IS GOOD EVENING

Enter a string: hi mehesh is good evening Choose an option:

- 1. Convert to upper case
- 2. Convert to lower case
- 3. Convert to swap case
- 4. Convert to title case

Enter your choice (1/2/3/4): 4

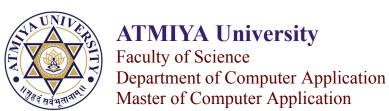
Result: Hi Mehesh Is Good Evening



you

Code:-23PGCA207 | Subject-Name:- Programming With Python

```
(5.) Allow users to enter multiple strings in the list;
arrange the entered string into alphabetical order and
display.
input string = input("Enter multiple strings separated
by spaces: ")
strings list = input string.split()
sorted list = sorted(strings list)
print("Sorted strings:")
for string in sorted list:
    print(string)
# output:=
Enter multiple strings separated by spaces: the more
that you read, things you will know.
Sorted strings:
know.
more
read, things
that
the
will
you
```



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(6.) Create a tuple and display it. Enter 25 at the third position and display it again.

```
my_tuple = (1, 2, 3, 4, 5)

tuple_list = list(my_tuple)

tuple_list.insert(2, 25)

modified_tuple = tuple(tuple_list)

print("Modified Tuple:", modified_tuple)

# output:=
Modified Tuple: (1, 2, 25, 3, 4, 5)
```

- (7.) Create a dictionary named library with following keys (Bookid, Title, Author, Price, Publisher).
- a. Display the dictionary, b. Display the name of Author, c. Display the Bookid
- d. Display the length of the dictionary, e. Update the price, f. Insert year as the new key and display the dictionary again. Create the dictionary

library = {



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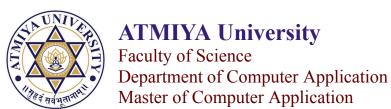
Faculty of Science

Department of Computer Application

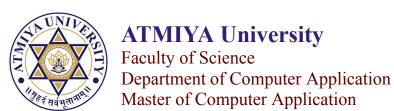
Master of Computer Application

Code :-23PGCA207 | Subject-Name:- Programming With Python

```
'Bookid': '001',
    'Title': 'Python Programming',
    'Author': 'John Smith',
    'Price': 29.99,
    'Publisher': 'ABC Publications'
}
print("Library Dictionary:")
print(library)
print("\nAuthor:", library['Author'])
print("Bookid:", library['Bookid'])
print("Length of the Dictionary:", len(library))
library['Price'] = 34.99
library['Year'] = 2024
print("\nUpdated Library Dictionary:")
print(library)
# output:=
Library Dictionary:
```



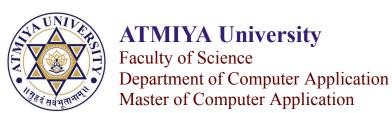
```
{'Bookid': '001', 'Title': 'Python Programming',
'Author': 'John Smith', 'Price': 29.99, 'Publisher':
'ABC Publications'}
Author: John Smith
Bookid: 001
Length of the Dictionary: 5
Updated Library Dictionary:
{'Bookid': '001', 'Title': 'Python Programming',
'Author': 'John Smith', 'Price': 34.99, 'Publisher':
'ABC Publications', 'Year': 2024}
(8.) Create a numeric array and perform following
operations on it: Add 2 to each elements,
Subtract 3 from each element, Multiply each element
with 3, Divide each element by 2, Find max and min,
find the average of all elements.
numeric array = [5, 10, 15, 20, 25]
numeric array added = [num + 2 for num in
numeric array]
numeric array subtracted = [num - 3 for num in
numeric array]
```



```
numeric array multiplied = [num * 3 for num in
numeric array]
numeric array divided = [num / 2 for num in
numeric array]
maximum = max(numeric array)
minimum = min(numeric array)
average = sum(numeric array) / len(numeric array)
print("Original array:", numeric array)
print("Added 2:", numeric array added)
print("Subtracted 3:", numeric array subtracted)
print("Multiplied by 3:", numeric array multiplied)
print("Divided by 2:", numeric array divided)
print("Maximum:", maximum)
print("Minimum:", minimum)
print("Average:", average)
# output:=
# Original array: [5, 10, 15, 20, 25]
# Added 2: [7, 12, 17, 22, 27]
# Subtracted 3: [2, 7, 12, 17, 22]
# Multiplied by 3: [15, 30, 45, 60, 75]
```



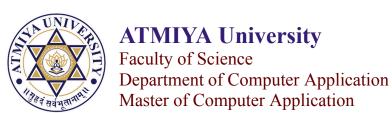
```
# Divided by 2: [2.5, 5.0, 7.5, 10.0, 12.5]
# Maximum: 25
# Minimum: 5
# Average: 15.0
(9). Create a numeric array and do the following: append
the element, pop the element, insert an element at the
desired postion, reverse the elements in the array,
convert the array to list.
numeric array = [1, 2, 3, 4, 5]
numeric array.append(6)
print("After appending:", numeric array)
popped element = numeric array.pop()
print("Popped element:", popped_element)
print("After popping:", numeric array)
desired position = 2
element to insert = 10
numeric array.insert(desired position,
element to insert)
print("After inserting", element to insert, "at
position", desired position, ":", numeric array)
```



```
numeric array.reverse()
print("After reversing:", numeric array)
numeric list = list(numeric array)
print("Converted to list:", numeric list)
#output:=
After appending: [1, 2, 3, 4, 5, 6]
Popped element: 6
After popping: [1, 2, 3, 4, 5]
After inserting 10 at position 2 : [1, 2, 10, 3, 4, 5]
After reversing: [5, 4, 3, 10, 2, 1]
Converted to list: [5, 4, 3, 10, 2, 1]
(10.) Accept numeric elements from the user, store it
to the array and display. Ask user to enter search
element. Display the position of the searched element.
numeric array = []
num elements = int(input("Enter the number of elements:
"))
```



```
for i in range(num elements):
    element = float(input("Enter element {}:
".format(i+1)))
    numeric array.append(element)
print("Array:", numeric array)
search element = float(input("Enter the element to
search for: "))
try:
    position = numeric array.index(search element)
    print("Position of the search element:", position)
except ValueError:
    print("Search element not found in the array.")
# output:=
Enter the number of elements: 5
Enter element 1: 78
Enter element 2: 89
Enter element 3: 80
Enter element 4: 90
Enter element 5: 56
Array: [78.0, 89.0, 80.0, 90.0, 56.0]
Enter the element to search for: 80
Position of the search element: 2
```



```
(11.) Take two arrays enter 5 digits in both arrays.
Compare the corresponding element from each array and
display only the bigger number.
array1 = []
array2 = []
print("Enter 5 digits for array1:")
for i in range(5):
    digit = int(input("Enter digit {}: ".format(i +
1)))
    array1.append(digit)
print("Enter 5 digits for array2:")
for i in range(5):
    digit = int(input("Enter digit {}: ".format(i +
1)))
    array2.append(digit)
print("Comparing corresponding elements:")
for i in range(5):
    if array1[i] > array2[i]:
        print("Bigger number:", array1[i])
   elif array1[i] < array2[i]:</pre>
        print("Bigger number:", array2[i])
```



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else:

```
print("Both numbers are equal at index", i)
```

```
# output:=
Enter 5 digits for array1:
Enter digit 1: 23
Enter digit 2: 40
Enter digit 3: 70
Enter digit 4: 60
Enter digit 5: 43
Enter 5 digits for array2:
Enter digit 1: 96
Enter digit 2: 44
Enter digit 3: 33
Enter digit 4: 22
Enter digit 5: 88
Comparing corresponding elements:
Bigger number: 96
Bigger number: 44
Bigger number: 70
Bigger number: 60
Bigger number: 88
```

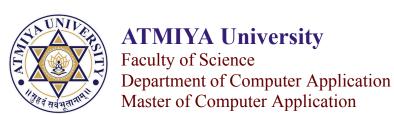
(12.) Accept dimension of the array and its values from the user, create an array as desired.



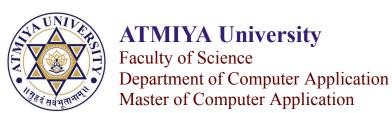
```
rows = int(input("Enter the number of rows: "))
cols = int(input("Enter the number of columns: "))
array = []
print("Enter values for the array:")
for i in range(rows):
    row = []
    for j in range(cols):
        value = input("Enter value for position ({}),
{}): ".format(i, j))
        row.append(value)
    array.append(row)
print("Array:")
for row in array:
    print(row)
#output:=
Enter the number of rows: 2
Enter the number of columns: 4
Enter values for the array:
Enter value for position (0, 0): 2
Enter value for position (0, 1): 5
Enter value for position (0, 2): 6
Enter value for position (0, 3): 7
```



```
Enter value for position (1, 0): 8
Enter value for position (1, 1): 9
Enter value for position (1, 2): 8
Enter value for position (1, 3): 5
Array:
['2', '5', '6', '7']
['8', '9', '8', '5']
(13.) Create a function to calculate the simple
interest.
principal = float(input("Enter the principal amount:
"))
rate = float(input("Enter the rate of interest (in
percentage): "))
time = float(input("Enter the time period (in years):
"))
simple interest = (principal * rate * time) / 100
print("Simple Interest:", simple interest)
# output:=
Enter the principal amount: 700
Enter the rate of interest (in percentage): 60
Enter the time period (in years): 4
```



```
Simple Interest: 1680.0
(14.) Create a function to perform basic arithmetic
operations on the number.
num1 = float(input("Enter the first number: "))
num2 = float(input("Enter the second number: "))
addition result = num1 + num2
print("Addition Result:", addition result)
subtraction result = num1 - num2
print("Subtraction Result:", subtraction result)
multiplication result = num1 * num2
print("Multiplication Result:", multiplication result)
if num2 != 0:
    division result = num1 / num2
    print("Division Result:", division result)
else:
    print("Cannot divide by zero.")
# output:=
Enter the first number: 60
Enter the second number: 70
```



```
Addition Result: 130.0
Subtraction Result: -10.0
Multiplication Result: 4200.0
Division Result: 0.8571428571428571
(15.) Accept multiple strings and store it into the
list using function.
def lste(no):
    lst=[]
    for i in range(no):
        lst.append(input('Enter value of string : '))
    print(lst)
no=int(input('Enter number of strings you want to
insert : '))
lste(no)
#Output
Enter number of strings you want to insert : 2
Enter value of string: 46
Enter value of string: 89
['46', '89']
(16.) Find the biggest number from three values using
lambda.
```



```
def big in three(*args):
    return sorted(args, key=lambda x: x)[-1]
# Example usage
num1 = 10
num2 = 25
num3 = 15
result = big in three(num1, num2, num3)
print(f"Maximum Number: {result}")
# output:=
Maximum Number: 25
(17.) Demonstrate the use of: i). break and ii). pass.
# break:=
for num in range(0,10):
    if num == 5:
        break
    print(f'no: {num}')
# output:=
# no: 0
```



```
# no: 1
# no: 2
# no: 3
# no: 4
# pass:=
for num in range(0,10):
    if num == 5:
        pass
    print(f'no: {num}')
# output:=
no: 0
no: 1
no: 2
no: 3
no: 4
no: 5
no: 6
no: 7
no: 8
no: 9
```

