ASSIGNMENT-5

LEVEL WISE QUESTIONS(Sample)

1.Write a program for Function to add two numbers

```
# Function to add two numbers
def add_numbers(a, b):
    return a + b


# Example usage
num1 = float(input("Enter first number: "))
num2 = float(input("Enter second number: "))


result = add_numbers(num1, num2)
print("The sum is:", result)
```

Output

```
Enter first number: 5
Enter second number: 6
The sum is: 11.0
```

2. Write a program for Function to find factorial of a number

```
# Function to find factorial of a number
def factorial(n):
    if n < 0:
        return "Factorial does not exist for negative numbers."
    elif n == 0 or n == 1:
        return 1
    else:
        result = 1
        for i in range(2, n + 1):
```

```
        result *= i
    return result

# Example usage
num = int(input("Enter a number: "))
print("Factorial of", num, "is:", factorial(num))
```

```
Output

Enter a number: 6
Factorial of 6 is: 720
```

3. Write a program for Function to check even or odd

```
# Function to check if a number is even or odd
def check_even_odd(n):
    if n % 2 == 0:
        return "Even"
    else:
        return "Odd"

# Example usage
num = int(input("Enter a number: "))
result = check_even_odd(num)
print("The number is", result)
```

```
Output

Enter a number: 8
The number is Even
```

4. Write a program for Function to find power of a number

```
# Function to find the power of a number
```

```
def power(base, exponent):
    return base ** exponent

# Example usage
base = float(input("Enter the base: "))
exponent = float(input("Enter the exponent: "))

result = power(base, exponent)
print(f"{base} raised to the power {exponent} is: {result}")
```

```
Output

Enter the base: 7
Enter the exponent: 3
7.0 raised to the power 3.0 is: 343.0
```

5. Write a program for Function to swap two numbers

```
# Function to swap two numbers
def swap_numbers(a, b):
    return b, a

# Example usage
num1 = int(input("Enter first number: "))
num2 = int(input("Enter second number: "))

print("Before swapping: num1 =", num1, "num2 =", num2)
num1, num2 = swap_numbers(num1, num2)
print("After swapping: num1 =", num1, "num2 =", num2)
```

```
Output

Enter first number: 2
Enter second number: 3
Before swapping: num1 = 2 num2 = 3
After swapping: num1 = 3 num2 = 2
```

6. 1. len() - Get string length

#Python Program

#Simple string program using built in function

text = "Hello, #Python"

print(len(text)) # Output: 14

```
Output

14
```

2. upper() - Convert to uppercase

#Python Program

#Simple string program using built in function

text = "hello"

print(text.upper()) # Output: HELLO

Python Program

Simple string program using built-in function

text = "hello"

print(text.upper()) # Output: HELLO

3. lower() - Convert to lowercase

#Python Program

#Simple string program using built in function

text = " #Python Program"

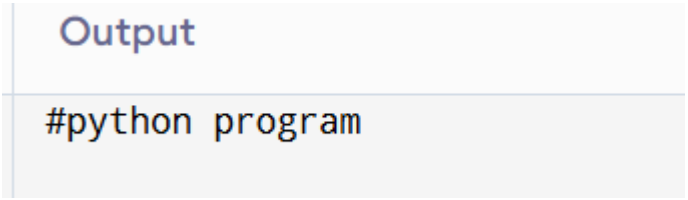
print(text.lower()) # Output: #Python Program

Python Program

Simple string program using built-in function

text = " #Python Program"

print(text.lower()) # Output: #python program



4. title() - Convert to title case

#Python Program

#Simple string program using built in function

text = "hello #Python Program"

print(text.title()) # Output: Hello #Python Program

Python Program

Simple string program using built-in function

```
text = "hello #Python Program"
print(text.title())  # Output: Hello #Python Program
```

```
Output
Hello #Python Program
```

5. capitalize() - Capitalize first letter

#Python Program

#Simple string program using built in function

text = "hello #Python Program"

print(text.capitalize()) # Output: Hello #Python Program

```
# Python Program
# Simple string program using built-in function

text = "hello #Python Program"
print(text.capitalize())  # Output: Hello #python program
```

```
Output
Hello #python program
```

6. strip() - Remove leading and trailing spaces

#Python Program

#Simple string program using built in function

text = " "

print(text.strip()) # Output: #Python Program

```
# Python Program
# Simple string program using built-in function

text = "  #Python Program  "
print(text.strip())  # Output: #Python Program
```

```
Output
#Python Program
```

7. lstrip() - Remove leading spaces

```
#Python Program
#Simple string program using built in function
text = &amp;quot; Hello&amp;quot;
print(text.lstrip()) # Output: Hello

# Python Program
# Simple string program using built-in function

text = " Hello"
print(text.lstrip())  # Output: Hello
```

```
Output
Hello
```

8. rstrip() - Remove trailing spaces

```
#Python Program
#Simple string program using built in function
```

text = " "

print(text.rstrip()) # Output: #Python Program

Python Program

Simple string program using built-in function

text = " #Python Program "

print(text.rstrip())

 # Output: " #Python Program"

```
Output

#Python Program
```

9. replace() - Replace substring

#Python Program

#Simple string program using built in function

text = "Hello, world!"

print(text.replace("world", " #Python Program")) # Output: Hello, #Python Program!

Python Program

Simple string program using built-in function

text = "Hello, world!"

print(text.replace("world", "#Python Program")) # Output: Hello, #Python Program!

```
Output

Hello, #Python Program!
```

10. split() - Split string into list

#Python Program

#Simple string program using built in function

text = "apple,banana,orange"

print(text.split(",")) # Output: ['apple', 'banana', 'orange']

```
# Python Program
# Simple string program using built-in function

text = "apple,banana,orange"
print(text.split(","))  # Output: ['apple', 'banana', 'orange']
```

```
Output
['apple', 'banana', 'orange']
```

11. join() - Join list into string

#Python Program

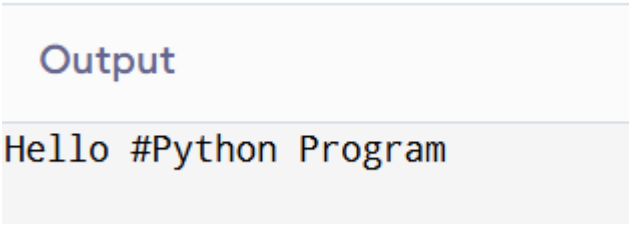
#Simple string program using built in function

words = ["Hello", " #Python Program"]

print(" ".join(words)) # Output: Hello #Python Program

```
# Python Program
# Simple string program using built-in function

words = ["Hello", "#Python Program"]
print(" ".join(words))  # Output: Hello #Python Program
```



12. find() - Find substring index

#Python Program

#Simple string program using built in function

text = "programming"

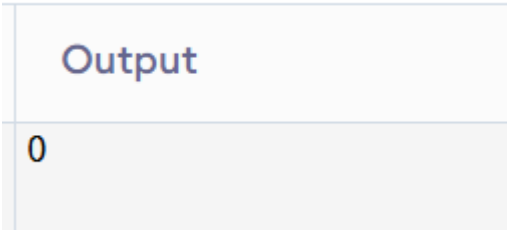
print(text.find("program")) # Output: 7

 # Python Program

Simple string program using built-in function

text = "programming"

print(text.find("program")) # Output: 0



13. count() - Count occurrences of substring

#Python Program

#Simple string program using built in function

text = "banana banana"

print(text.count("banana")) # Output: 2

Python Program

Simple string program using built-in function

```
text = "banana banana"
print(text.count("banana"))  # Output: 2
```

```
Output
2
```

14. startswith() - Check if string starts with substring

#Python Program

#Simple string program using built in function

text = "Hello, #Python Program!"

print(text.startswith("Hello")) # Output: True

```
# Python Program
# Simple string program using built-in function

text = "Hello, #Python Program!"
print(text.startswith("Hello"))  # Output: True
```

```
Output
True
```

15. endswith() - Check if string ends with substring

#Python Program

#Simple string program using built in function

text = "is fun!"

print(text.endswith("fun!")) # Output: True

```
# Python Program
# Simple string program using built-in function
```

```
text = "is fun!"
print(text.endswith("fun!"))  # Output: True
```

```
Output
True
```

16. isalpha() - Check if all characters are alphabets

#Python Program

#Simple string program using built in function

text = "Hello"

print(text.isalpha()) # Output: True

```
# Python Program
# Simple string program using built-in function

text = "Hello"
print(text.isalpha())  # Output: True
```

```
Output
True
```

17. isdigit() - Check if all characters are digits

#Python Program

#Simple string program using built in function

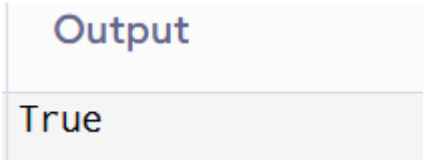
num = "12345"

print(num.isdigit()) # Output: True

```
# Python Program
# Simple string program using built-in function

num = "12345"
```

print(num.isdigit()) # Output: True



18. isalnum() - Check if string is alphanumeric

#Python Program

#Simple string program using built in function

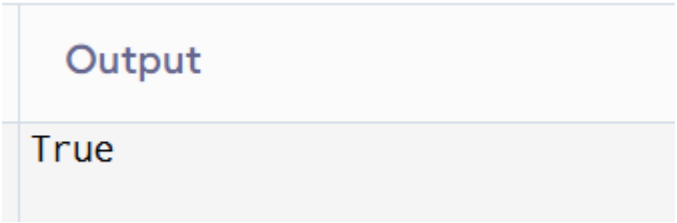
text = "Hello123"print(text.isalnum()) # Output: True

Python Program

Simple string program using built-in function

text = "Hello123"

print(text.isalnum()) # Output: True



19. swapcase() - Swap case of characters

#Python Program

#Simple string program using built in function

text = "Hello #Python Program"

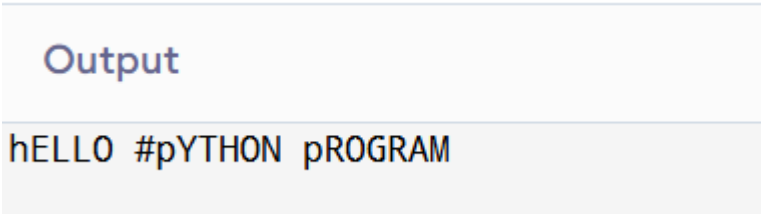
print(text.swapcase()) # Output: hELLO #Python Program

Python Program

Simple string program using built-in function

text = "Hello #Python Program"

print(text.swapcase()) # Output: hELLO #pYTHON pROGRAM



20. zfill() - Pad string with zeros

#Python Program

#Simple string program using built in function

text = "42"

print(text.zfill(5)) # Output: 00042

```
# Python Program
# Simple string program using built-in function

text = "42"
print(text.zfill(5))  # Output: 00042
```