Laboratory Report Cover Sheet

SRM Institute of Science and Technology College of Engineering and Technology Department of Electronics and Communication Engineering
18ECO109J Embedded System Design using **Raspberry Pi** **Sixth Semester, 2022-23 (Even semester)**

Name   :

Register Number
:
Day Order   :

Venue   :

Title of the Experiment :

Date of conduction
:
Date of Submission
:

Particulars	Max. Marks	Marks Obtained
Pre-lab / Algorithm	10	
Lab Performance	20	
Post-lab	10	
Total	**40**	

REPORT VERIFICATION

Date

:
Faculty Name   :
Signature   :

LAB 1 Arithmetic and String Operation

Aim:

To explore Arithmetic and string operations using python 3

Task

1. Write a Python program to perform arithmetic operations on two integers.
2. Write a Python Program to find area of a triangle.
3. Write a Python code to remove 6 characters from start of given string "Embedded Systems"
4. Write the Python code to find length of String "Computer Science". Replace science with Electronics.
5. Write the Python program to reverse a string from user input

Algorithm:

Programs:

```python
def arithematic(a,b):
    print(f"Multiply: {a*b}")
    print(f"Additon: {a+b}")
    print(f"Subtract: {a-b}")
    print(f"Division: {a/b}")

def areaOfTriangle(s,a,b,c):
    z = s*(s-a)*(s-b)*(s-c)
    print(f"Area: {z**(0.5)}")




if __name__ == "__main__":
    a=int(input())
    b=int(input())
    c=int(input())
    arithematic(a,b)
    s = (a+b+c)/2
    areaOfTriangle(s,a,b,c)
```

```
String.py > ...
1    def remove6(a):
2        print(f"Output: {a[6:]}")
3
4    def replace(b):
5        print(f"Output: {b[:8]} Electronics")
6
7    def reverse(a):
8        print(f"Reversed String: {a[::-1]}")
9
10
11   if __name__ =="__main__":
12       a=input()
13       remove6(a)
14
15       b=input()
16       replace(b)
17       reverse(a)
```

Output:

```
PS C:\Users\hy717\Documents\java> & C:/Users/h
2
3
4
Multiply: 6
Additon: 5
Subtract: -1
Division: 0.6666666666666666
Area: 2.9047375096555625
```

```
PS C:\Users\hy717\Documents\java> & C:/Use
Embedded System
Output: ed System
Computer Science
Output: Computer Electronics
Reversed String: metsyS deddebmE
```

Pre Lab Questions:

1. Which notation you will use to extract part of a string?

2. Convert all the characters in the string "Raspberry" to upper case using python code.

3. List the comparison and arithmetic operators used in python.

Post Lab Questions:

1. Write Python program to find area of a circle.
2. >>> str1 = 'Hello '
   >>>str2 = ' World!'
   print (str1 + str2)
   What is the output?

```python
PostLab-1.py > ...
1    def circle(r):
2        print(f"Area:{3.14*(r**2)}")
3
4    def output(s1,s2):
5        print("Output: " +s1+s2)
6
7    if __name__=="__main__":
8        r = int(input())
9        circle(r)
10       s1 = input()
11       s2 = input()
12       output(s1,s2)
13
```

PROBLEMS 41   OUTPUT   DEBUG CONSOLE   TERMINAL

Windows PowerShell
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Install the latest PowerShell for new features

PS C:\Users\hy717\Documents\java> & C:/Users/hy
3
Area:28.26
Hi
Hello
Output: HiHello

Result: