

# **ARTIFICIAL INTELLIGENCE**

## **LAB 4**



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**BS (SE-5th) MORNING**

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### LAB TASK 1:

**Write Python Program to Calculate the Length of a String Without Using Built-In len() Function.**

**Code:**

```
string = input("Enter a string: ")
count=0
for x in string:
    count+=1
print("Length of the input string is:" ,count)
```

**output:**

```
string = input("Enter a string: ")
count=0
for x in string:
    count+=1
print("Length of the input string is:" ,count)
```

```
Enter a string: hello
Length of the input string is: 5
```

### LAB TASK 2:

**Write a program that creates a list of 10 random integers. Then create two lists by name odd\_list and even\_list that have all odd and even values of the list respectively.**

**Code:**

```
import random
randomlist = []
for i in range(0,10):
    n = random.randint(1,30)
    randomlist.append(n)
print(randomlist)
even_list = [10, 21, 4, 45, 66, 93, 11]

even_ = list(filter(lambda x: (x % 2 == 0), list1))
```

```
print("Even numbers in the list: ", even_nos)
```

```
odd_list = [10, 21, 4, 45, 66, 93, 11]
```

```
odd_nos = list(filter(lambda x: (x % 2 != 0), list1))
```

```
print("odd numbers in the list: ", odd_nos)
```

## Output:

```
: import random
randomlist = []
for i in range(0,10):
    n = random.randint(1,30)
    randomlist.append(n)
print(randomlist)
```

```
[6, 16, 2, 25, 27, 22, 4, 9, 28, 18]
```

```
: even_list = [10, 21, 4, 45, 66, 93, 11]
even_ = list(filter(lambda x: (x % 2 == 0), list1))
print("Even numbers in the list: ", even_nos)
```

```
Even numbers in the list: [10, 4, 66]
```

```
: odd_list = [10, 21, 4, 45, 66, 93, 11]
odd_nos = list(filter(lambda x: (x % 2 != 0), list1))
print("odd numbers in the list: ", odd_nos)
```

```
odd numbers in the list: [21, 45, 93, 11]
```

```
num1=int(input("Enter First Number:"))
num2=int(input("Enter Second Number:"))
p=basic_calc(num1,num2)
print("The sum of Two Number is:")
p.add()
print("The subtraction of Two Number is:")
p.sub()
print("The Multiplication of Two Number is:")
p.mul()
print("The division of Two Number is:")
p.div()
```

```
Enter First Number:5
Enter Second Number:8
The sum of Two Number is:
13
The subtraction of Two Number is:
-3
The Multiplication of Two Number is:
40
The division of Two Number is:
0.625
```

**For viewing code, please link on the link below**

**[https://github.com/Enggadil/-AI-LAB-\\_BSSE-5-M-](https://github.com/Enggadil/-AI-LAB-_BSSE-5-M-)**