

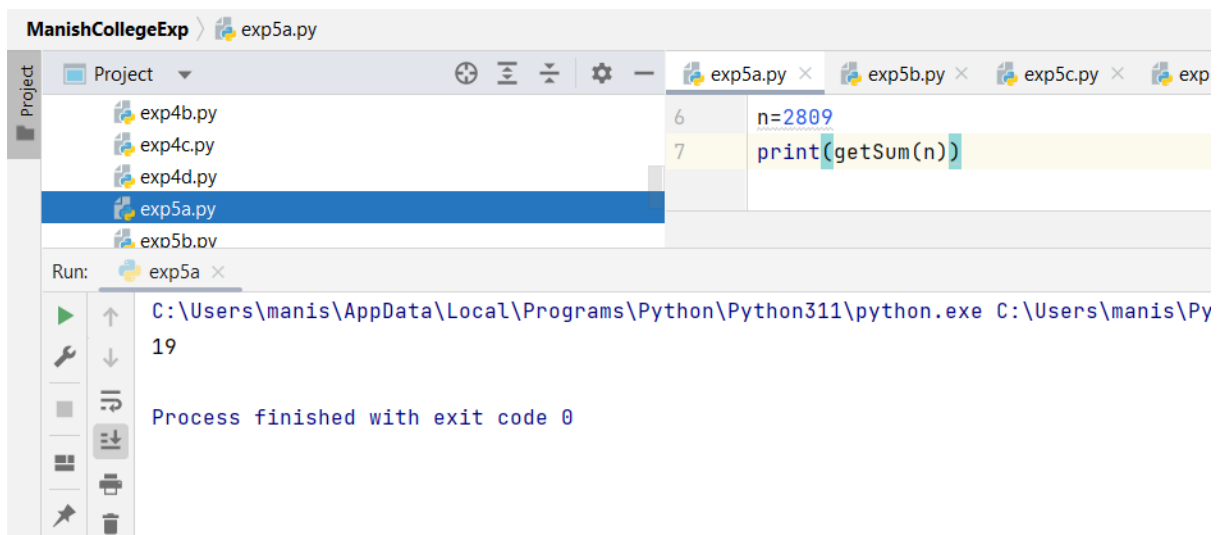
## Experiment No.5

**Aim:** Edit/compile/run a program to read a four digit number through the keyboard and calculate the sum of its digit.

### Program A:

```
def getSum(n) :
    sum=0
    for digit in str(n):
        sum += int(digit)
    return sum
n=2809
print(getSum(n))
```

### Output:



### Program B:

```
def getSum(n) :
    sum =0
    while (n!=0) :
        sum=sum+(n%10)
        n=n//10
    return sum
n=2542
print(getSum(n))
```

## Output:

ManishCollegeExp > exp5b.py

```

1 def getSum(n):
2     sum = 0
3     while(n!=0):
4         sum = sum + n%10
5         n = n//10
6     return sum
7
8 getSum()

```

Run: exp5b

C:\Users\manis\AppData\Local\Programs\Python\Python311\python.exe C:\Users\manis\AppData\Local\Programs\Python\Python311\python.exe C:\Users\manis\AppData\Local\Programs\Python\Python311\python.exe C:\Users\manis\AppData\Local\Programs\Python\Python311\python.exe 13

Process finished with exit code 0

## Program C:

```

def sumDigits(no):
    return 0 if no==0 else int(no%10)+sumDigits(int(no/10))

no= 6842
print(sumDigits(no))

```

## Output:

ManishCollegeExp > exp5c.py

```

2 return 0 if no==0 else
3
4 no= 6842

```

Run: exp5c

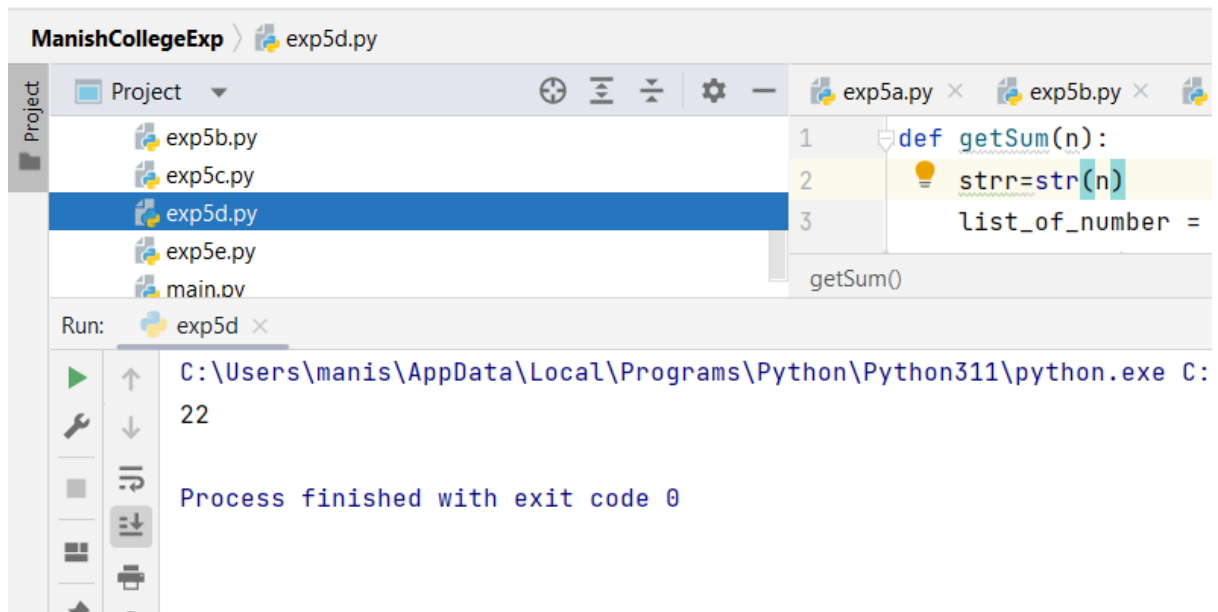
C:\Users\manis\AppData\Local\Programs\Python\Python311\python.exe C:\Users\manis\AppData\Local\Programs\Python\Python311\python.exe C:\Users\manis\AppData\Local\Programs\Python\Python311\python.exe C:\Users\manis\AppData\Local\Programs\Python\Python311\python.exe 20

Process finished with exit code 0

**Program D:**

```
def getSum(n):
    strr=str(n)
    list_of_number = list(map(int, strr.strip()))
    return sum(list_of_number)

n = 2587
print(getSum(n))
```

**Output:****Program E:**

```
number = input("Enter a four-digit number: ")
if len(number) == 4:
    sum_of_digits = int(number[0]) + int(number[1]) +
int(number[2]) + int(number[3])
    print("The sum of the digits is:", sum_of_digits)
else:
    print("Error: You must enter a four-digit number.")
```

**Output:** If 4 digits are entered correctly:

The screenshot shows a Python IDE with a project named 'ManishCollegeExp'. The file explorer on the left lists several files: exp5b.py, exp5c.py, exp5d.py, exp5e.py (selected), and main.py. The main editor displays the code for exp5e.py:

```
1 number = input("Enter a four-digit number: ")
2 if len(number) == 4:
3     sum_of_digits = int(number[0]) + int(number[1]) + int(number[2]) + int(number[3])
```

The Run console shows the following output:

```
C:\Users\manis\AppData\Local\Programs\Python\Python311\python.exe C:\Users\manis\ManishCollegeExp\exp5e.py
Enter a four-digit number: 9876
The sum of the digits is: 30
Process finished with exit code 0
```

**Output:** If 4 digits are not entered:

The screenshot shows the same Python IDE with the same code as above. The Run console shows the following output:

```
C:\Users\manis\AppData\Local\Programs\Python\Python311\python.exe C:\Users\manis\ManishCollegeExp\exp5e.py
Enter a four-digit number: 28
Error: You must enter a four-digit number.
Process finished with exit code 0
```

Practical Performance (4)	Writeup & Oral (4)	Attendance (2)	Total (10)