Practical 2:

(A) Develop python Programs to compute total amount after simple interest and print it. Write a function that assigns default value .09 to rate of interest. Computes the interest and returns total amount. Test the program for keyword arguments also.

Code:

```python
def SimpleInterest(p, n, r=0.09):
    return p*r*n

a=int(input("Enter principle amount: "))
b=int(input("Enter number of years: "))

print("Simple interest is: ", SimpleInterest(a,b))
print("Total amount: ", SimpleInterest(a,b) + a)

#testing using keyword argument
print("Simple interest using keyword argument is: ", SimpleInterest(r=0.05, n=
3, p=50000))
```

Output:

```
TERMINAL    PROBLEMS    OUTPUT    DEBUG CONSOLE


E:\Python CODE\Semester 8>python Practical2.py
Enter principle amount: 5000
Enter number of years: 2
Simple interest is:  900.0
Total amount:  5900.0
Simple interest using keyword argument is:  7500.0
```

(B) **Develop a python program to test scope of variables. Write function that has same variables as main scope and print all in their scope. Write your observations**

Code:

```
x="Yagnik"

def myFun1():
    x="Gohil"
    print("Inside myFun: " + x)

myFun1()

print("outside function: " + x)

a="Out"
def myFun2():
    global a
    a="In"

myFun2()
print(a)
```
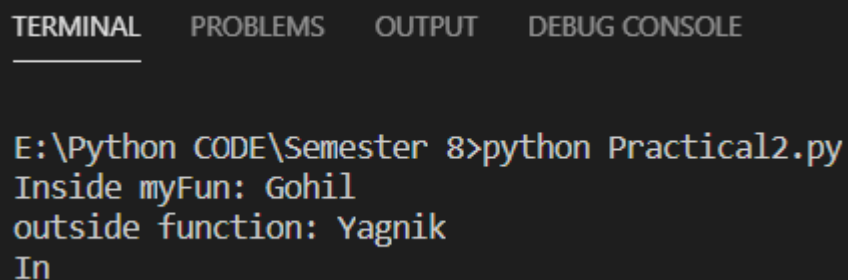
Output :

```
TERMINAL    PROBLEMS    OUTPUT    DEBUG CONSOLE


E:\Python CODE\Semester 8>python Practical2.py
Inside myFun: Gohil
outside function: Yagnik
In
```

Observation:

- For the local variables defined in functions the scope of the variable is only limited inside the function while the for the variable outside the function has scope throughout the program.
- And for variable declared using "global" keyword even if declared inside a function it's value can be accessed outside the function.

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Observation: