

ASSIGNMENT 4

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DOMAIN:DATA SCIENCE

#USER DEFINED FUNCTIONS

```
def add():
    a=89
    b=77
    c=a+b
    print(a)
    print(b)
    print(c)

add()
```

OUTPUT

89
77
166

```
def x1():
    a=89
    b=77
    c=a+b
    print(a)
    print(b)
    print(c)

x1()
```

OUTPUT

89
77
166

#PROGRAM TO ADD AND SUBTRACT

```
def add():
    a=89
    b=77
    c=a+b
```

OUTPUT

89
77
166

```
print(a)
print(b)
print(c)

def subtract():
    a=89
    b=77
    c=a-b
    print(a)
    print(b)
    print(c)

add()
subtract()
```

OUTPUT

```
89
77
12
```

#USER INPUT

```
def add():
    a=int(input("enter first number"))
    b=int(input("enter second number"))
    c=a+b
    print(a)
    print(b)
    print(c)

add()
```

OUTPUT

```
enter first number 45
enter second number 89
45
89
134
```

```
def add():
```

```
    a=float(input("enter first number"))
    b=float(input("enter second number"))
```

```
c=a+b  
print(a)  
print(b)  
print(c)  
  
add()
```

| OUTPUT |
|--------------------------|
| enter first number 45.0 |
| enter second number 89.0 |
| 45.0 |
| 89.0 |
| 134.0 |

```
def name():  
  
    fn=input("enter first number")  
    ln=input("enter second number")  
    c=fn+" "+ln  
  
    print(fn)  
    print(ln)  
    print(c)  
  
name()
```

| OUTPUT |
|-----------------------|
| enter first number 1 |
| enter second number 2 |
| 1 |
| 2 |
| 1 2 |

#ADDITION SUBTRACTION MULTIPLICATION DIVISION

```
def add():  
  
    a=int(input("enter first number"))  
    b=int(input("enter second number"))  
  
    c=a+b  
  
    print(a)  
    print(b)  
    print(c)  
  
def subtract():  
  
    a=int(input("enter first number"))
```

```
b=int(input("enter second number"))

c=a-b

print(a)

print(b)

print(c)

def multiply():

    a=int(input("enter first number"))

    b=int(input("enter second number"))

    c=a*b

    print(a)

    print(b)

    print(c)

def divide():

    a=int(input("enter first number"))

    b=int(input("enter second number"))

    c=a/b

    print(a)

    print(b)

    print(c)

add()

subtract()

multiply()

divide()
```

OUTPUT

```
enter first number 2
enter second number3
2
3
5
enter first number4
enter second number5
4
5
-1
enter first number6
enter second number7
6
7
42
enter first number8
enter second number4
8
4
2.0
```

```
#SWITCH DEMONSTRATION USING IF ELSE
```

```
def add():  
    a=int(input("enter first number"))  
    b=int(input("enter second number"))  
    c=a+b  
    print(a)  
    print(b)  
    print(c)
```

```
def subtract():  
    a=int(input("enter first number"))  
    b=int(input("enter second number"))  
    c=a-b  
    print(a)  
    print(b)  
    print(c)
```

```
def multiply():  
    a=int(input("enter first number"))  
    b=int(input("enter second number"))  
    c=a*b  
    print(a)  
    print(b)  
    print(c)
```

```
def divide():
```

```
1. Addition  
2. Subtraction  
3. multiply  
4. Division  
enter your choice 1  
enter first number 45  
enter second number78  
45  
78  
123
```

```
1. Addition  
2. Subtraction  
3. multiply  
4. Division  
enter your choice2  
enter first number9  
enter second number8  
9  
8  
1
```

```

a=int(input("enter first number"))

b=int(input("enter second number"))

c=a/b

print(a)

print(b)

print(c)

print("1. Addition")

print("2. Subtraction")

print("3. multiply")

print("4. Division")

opt=int(input("enter your choice"))

if (opt==1):

    add()

elif (opt==2):

    subtract()

elif (opt==3):

    multiply()

elif (opt==4):

    divide()

else:

    print("Invalid choice")

```

```

1. Addition

2. Subtraction

3. multiply

4. Division

enter your choice3

enter first number7

enter second number9

7

9

63

```

```

1. Addition

2. Subtraction

3. multiply

4. Division

enter your choice4

enter first number90

enter second number9

90

9

10.0

```

```

1. Addition

2. Subtraction

3. multiply

4. Division

enter your choice 8

Invalid choice

```

```
#find highest no
def f1():
    x = int(input("enter first number"))
    y = int(input("enter second number"))
    if (x > y):
        print("the first number is highest")
    else:
        print("the second number is highest")
f1()
```

```
enter first number6
enter second number7
the second number is highest
```

```
#FOR LOOP INSIDE FUNCTION
def f1():
    for i in range(1,11):
        print(i)
f1()
```

```
1
2
3
4
5
6
7
8
9
10
```

```
def f1():
    s1=[23,45,55,66,77]
    for i in s1:
        print(i)
f1()
```

```
23
45
55
66
77
```

```
def f1():
    s1=(11,22,33,55,88,33,66)
    print(s1)
f1()
```

```
23
45
55
66
77
```

```
def student():
    rno=int(input("enter any roll number"))
    name=input("enter student name")
    phy=int(input("enter physics marks"))
    mat=int(input("enter maths marks"))
    che=int(input("enter chemistry marks"))
    total=phy+mat+che
    avg=total/3
    print(rno)
    print(name)
    print(phy)
    print(mat)
    print(che)
    print(total)
    print(avg)
student()
```

```
enter any roll number 44
enter student name prathiksha
enter physics marks 89
enter maths marks90
enter chemistry marks78
44
prathiksha
89
90
78
257
85.66666666666667
```

DJ10A file

```
def student(name):
    print(name)
```

```
vikas
```

```
student("vikas")
```

```
def student(name,age):
```

```
    print(name)
```

```
    print(age)
```

```
student("vikas",23)
```

vikas

23

```
def student(name,age,mrks):
```

```
    print(name)
```

```
    print(age)
```

```
    print(mrks)
```

```
student("vikas",23,67.45)
```

vikas

23

67.45

```
def f(num):
```

```
    return num**2 + 1
```

```
print(f(4))
```

17

```
def f(num):
```

```
    return num**2 + 1
```

```
x=f(4)
```

```
print(x)
```

17

```
def f(num):
```

```
    return num ** 2 + 1
```

```
x = f(4)
```

```
z = x + 100  
print(z)
```

117

```
def f(num):  
    return num**2 + 1  
x=f(4)  
w=int(input("enter any number="))  
z=x+w  
print(z)
```

enter any number=4

21

```
def add(x,y):  
    return x+y  
x=add(768,654)  
print(x)
```

1422

```
def add(x,y):  
    return x+y
```

```
a=int(input("enter the first number="))  
b=int(input("enter the second number="))  
x=add(a,b)  
print(x)
```

enter the first number=12

enter the second number=13

25

```
def add(x,y,z):  
    return x+y*z
```

```
a=int(input("enter the first number="))

b=int(input("enter the second number="))

c=int(input("enter the third number="))

x=add(a,b,c)

print(x)
```

```
enter the first number= 12
enter the second number=14
enter the third number=16
236
```

```
def add(x, pi=3.142):
    return x * pi
a = int(input("enter the first number="))
x = add(a)
print(x)
```

```
enter the first number=12
37.704
```

```
def student(name, course, collname="cmr"):
    return name, course, collname
s1 = student("vikas", "mba")
print(s1)
```

```
('vikas', 'mba', 'cmr')
```

```
def student(name, course, collname="cmr"):
    return name, course, collname
s1 = student("vikas", "mba")
s2 = student("sanjay", "btech")
print(s1)
print(s2)
```

```
('vikas', 'mba', 'cmr')
('sanjay', 'btech', 'cmr')
```

```
def student(name, course, collname="cmr"):
    return name, course, collname
s1 = student("vikas", "mba")
s2 = student("sanjay", "btech")
print(s1)
print(s2)
```

```
('vikas', 'mba', 'cmr')
('sanjay', 'btech', 'cmr')
('pooja', 'bcom', 'kle')
('kavya', 'bba', 'kle')
```

```
x1 = student("pooja", "bcom", "kle")
x2 = student("kavya", "bba", "kle")
print(x1)
print(x2)
```