

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 number 78

45

78

123

1. Addition

2. Subtraction

3. multiply

4. Division

enter your choice 2

enter first number 9

enter second number 8

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)
```