

1)

2)

```
a = 9j
b = 10
print("a = ",a)
print("b= ", b)
c = 0
c = b + c
b = a
a = c
print("swapped values")
print ( "a =",a)
print ( "b =",b)
```

Output:

```
a = 9j
b= 10
swaped values
a = 10
b = 9j
```

3)

With third variable :

```
#3.a)using third variable
q = 10
r = 6
h = 0
print("q =",q)
print("r =",r)
h = h + q
q = r
r = h
print("r = ",r)
print("q=",q)
```

Output:

```
q = 10
r = 6
r = 10
q= 6
```

```
#3.b)without using third variable
q = 10
```

```

r = 6
print("q =",q)
print("r =",r)
q = r+q
r = q-r
q=q-r
print("r = ",r)
print("q=",q)

```

Output:

```

Structure
■ q = 10
■ r = 6
■ r = 10
rites q= 6

```

4)

```

a= input("enter the user ID: ")
print("User ID is ",a)
# in PYTHON 2
b= input("enter code : ")
print ('code %s' %(b))

```

Output:

```

Structure
enter the user ID: ad2
User ID is  ad2
■ enter code : 1e1
rites code 1e1

```

5)

```

a = int(input("Enter any no between 1 to 10 :"))
b= int(input("Enter any no between 1 to 10 :"))
if 0 < a < 11 or 0 < b < 11:
    print('a= {0}, b={1}'.format(a, b))
else:
    print("wrong no,restart")
    exit()
z = a + b
final = z + 30
print("Final sum", final)

```

Output:

```

Enter any no between 1 to 10 :213
Enter any no between 1 to 10 :34
wrong no,restart

```

```
Enter any no between 1 to 10 :2
Enter any no between 1 to 10 :3
a= 2, b=3
Final sum 35
```

6)

```
m = input("enter a value: ")
print("The data type of the input value is : int/float/string/etc", type(m))
output:
```

```
enter a value: ar
The data type of the input value is : int/float/string/etc <class 'str'>
```

7)

```
1 UpperCamelCase = "TheFirstLetterIsUpper"
2 print("UpperCamelCase : ",UpperCamelCase)
3 LowerCamelCase = "theFirstLetterIsLower"
4 print("LowerCamelCase : ",LowerCamelCase)
5 SnakeCamelCase = "all_letters_are_lower_with_hyphen_in_between"
6 print("SnakeCamelCase : ",SnakeCamelCase)
7 UpperCase = "UPPERCASE LETTERS"
8 print("UpperCase : ",UpperCase)
9 |
```

Output:

```
Terminal: Local x +
(venv) C:\Users\Vaishnavi\PycharmProjects\pythonProject2>python task2.py
UpperCamelCase : TheFirstLetterIsUpper
LowerCamelCase : theFirstLetterIsLower
SnakeCamelCase : all_letters_are_lower_with_hyphen_in_between
UpperCase : UPPERCASE LETTERS
```

8. If one data type value is assigned to 'a' variable and then a different data type value is assigned to 'a' again. Will it change the value? If Yes then Why

A) Yes, it gets over written.

TASK TWO OPERATORS AND DECISION MAKING STATEMENT:

1)

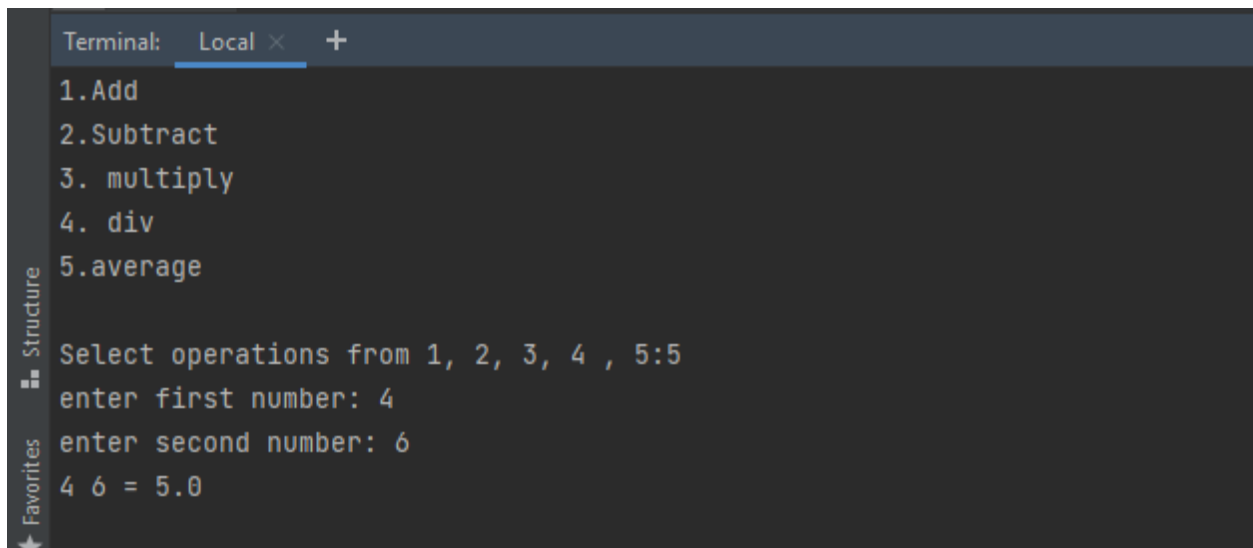
```
a = int(input("enter a number : "))
if a % 3 == 0:
    print("Consultadd")
if a % 5 == 0:
    print("Python Training")
if a % 3 == 0 & a % 5 == 0:
    print("Consultadd-Python Training")
```

Output:

```
enter a number : 70
Python Training

(venv) C:\Users\Vaishnavi\PycharmProjects\pythonProject>python assignment1.py
enter a number : 60
Consultadd
Python Training
Consultadd-Python Training
```

2)



The screenshot shows a PyCharm IDE with a terminal window titled 'Terminal: Local x +'. The terminal displays a menu with five options: 1.Add, 2.Subtract, 3.multiply, 4.div, and 5.average. Below the menu, the user is prompted to 'Select operations from 1, 2, 3, 4 , 5:5'. The user enters '4', followed by 'enter first number: 4' and 'enter second number: 6'. The final output is '4 6 = 5.0'. On the left side of the IDE, the 'Structure' and 'Favorites' toolbars are visible.

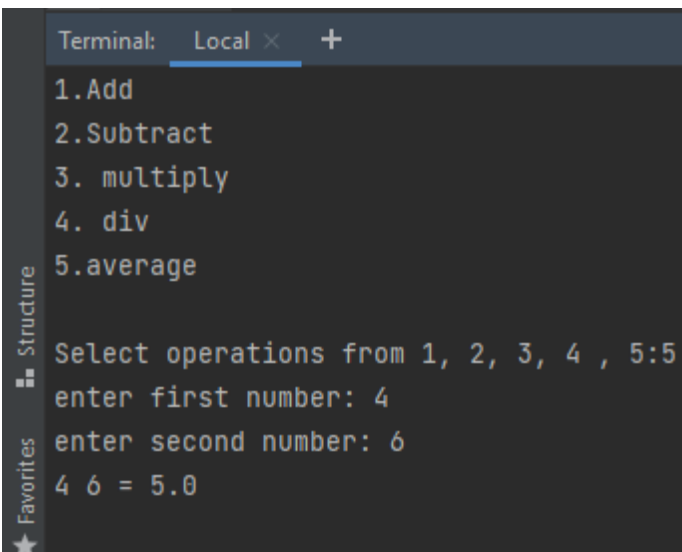
```
Terminal: Local x +
1.Add
2.Subtract
3.multiply
4.div
5.average
Select operations from 1, 2, 3, 4 , 5:5
enter first number: 4
enter second number: 6
4 6 = 5.0
```

Output:

```
1.Add
2.Subtract
3. multiply
4. div
5.average

Select operations from 1, 2, 3, 4 , 5:2
enter first number: 35
enter second number: 96
35 - 96 = -61
its negative
```

Average :



The screenshot shows a terminal window with a dark background. On the left side, there is a sidebar with icons for 'Structure' and 'Favorites'. The terminal content is as follows:

```
Terminal: Local x +
1.Add
2.Subtract
3. multiply
4. div
5.average

Select operations from 1, 2, 3, 4 , 5:5
enter first number: 4
enter second number: 6
4 6 = 5.0
```

3)

```
a = 10.0
b = 20.0
c = 30.0
avg = (a + b + c) / 3
print("avg=", avg)
if avg > a and avg > b and avg > c:
    print("avg is higher than a, b, c")
elif avg > a and avg > b:
    print("avg is higher than a,b,c")
elif avg > a and avg > c:
    print("avg is higher than a and c")
elif avg > b and avg > c:
    print("avg is higher than b,c")
elif avg > a:
    print(" avg is just higher than a")
elif avg > b:
```

```
    print("avg is jus higher than b")
elif avg > c:
    print("avg is just higher than c")
```

output:

```
avg= 20.0
avg is just higher than a
```

4)

5)

6)

```
x=123
for i in x:
    print(i)
```

output:

```
File "C:\Users\Vaishnavi\PycharmProjects\pythonProject\assignment1.py", line 2, in <module>
    for i in x:
TypeError: 'int' object is not iterable
```

->

```
i = 0
while i < 5:
    print(i)
    i += 1
    if i == 3:
        break
    else:
        print("error")
```

output:

```
0
error
1
error
2
```

->

```
count = 0
while True:
    print(count)
    count += 1
    if count >= 5:
        Break
```

output:

```
File "C:\Users\Vaishnavi\PycharmProjects\pythonProject\assignment1.py", line 6, in <module>
    Break
NameError: name 'Break' is not defined
```

->

```
count = 0
while True:
    print(count)
    count += 1
    if count >= 5:
        break
```

output:

```
0
1
2
3
4
```

7)

```
for x in range(6):
    if x == 3 or x == 6:
```

```
        continue
    print(x, end=' ')
```

out put:

```
(venv) C:\Users\Vaishnavi\PycharmProjects\pythonProject>python assignment1.py

0 1 2 4 5
C:\Users\Vaishnavi\PycharmProjects\pythonProject>
```

8)

```
r = input("enter an Alphanumeric string : ")
al = 0
dig = 0
for i in r:
    if i.isalpha():
        al = al + 1
    elif i.isdigit():
        dig = dig + 1
    else:
        pass
print(" letters : ", al)
print("numbers : ", dig)
```

output:

```
enter an Alphanumeric string : consult72
letters : 7
numbers : 2
```

9)

```
while True:
    lno = 456
    n = int(input("guess the number : "))
    if n == lno:
        print(" this is the lucky no : ", n)
        break
    else:
        print("retry")
```

output:


```
(venv) C:\Users\Vaishnavi\PycharmProjects\pythonProject>python assignment1.py
guess the number : 76
guess the number : 9
guess the number : 456
this is the lucky no : 456
```

```
while True:
    lno = 456
    ans = "no"
    ans2 = "yes"
    n = int(input("guess the number : "))
    if lno == n:
        print(" guessed it right")
        break
    else:
        p = input(" if you want to keep guessing till you get it type yes or
no to quit: ")
        if p == ans:
            print("out")
            break
        if p == ans2:
            continue
        else:
            print("wrong option")
            p = input("enter yes or no : ")
```

output:

```
(venv) C:\Users\Vaishnavi\PycharmProjects\pythonProject>python assignment1.py
guess the number : 23
if you want to keep guessing till you get it type yes or no to quit: 87
wrong option
enter yes or noyes
guess the number : 78
if you want to keep guessing till you get it type yes or no to quit: no
out
```

```
guess the number : 78
if you want to keep guessing till you get it type yes or no to quit: no
out

(venv) C:\Users\Vaishnavi\PycharmProjects\pythonProject>python assignment1.py
guess the number : 45
if you want to keep guessing till you get it type yes or no to quit: yes
guess the number : 456
guessed it right
```

10)

```

c = 0
for i in range(5):
    lno = int(input("guess a luck no "))
    if c == 5:
        print("Game over")
    if lno == lucky:
        print("Good guess!", i)
    else:
        print("try again !")
        continue

```

output:

```

guess a luck no 67
try again !
guess a luck no 8
try again !
guess a luck no 678
Good guess! 2
guess a luck no 8
try again !
guess a luck no 9
try again !

```

With WHILE loop:

```

lucky = 678
c = 0
while c <= 4:
    c = c + 1
    lno = int(input("guess a luck no "))
    if c == 5 and lno == lucky:
        print("good guess! game over !")
        break
    if c == 5:
        print("Game over")
        break
    if lno == lucky:
        print("Good guess!", c)
    else:
        print("try again !")
        continue

```

output:

```
guess a luck no 659
try again !
guess a luck no 89
try again !
guess a luck no 678
Good guess! 3
guess a luck no 54
try again !
guess a luck no 678
good guess! game over !
```

11)

```
1  num = 22
2
3  print("Guess the number in 5 chances : ")
4  count = 1
5  while count <= 5:
6      number = int(input("Type in the {} number ".format(count)))
7      if number == num:
8          print("Good guess!")
9          break
10     elif count < 5:
11         print("Try again!")
12     count += 1
13
14 if count == 6:
15     print("Sorry but that was not very successful")
16     print("Correct number :", num)
```

output:

```
(venv) C:\Users\Vaishnavi\PycharmProjects\pythonProject2>python task2.py
Guess the number in 5 chances :
Type in the 1 number 34
Try again!
Type in the 2 number 2
Try again!
Type in the 3 number 4
Try again!
Type in the 4 number 22
Good guess!
```