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6	Write a python program to create two 3X3 random matrixes and perform following operation: (a) Addition (b) subtraction		

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7	Write a Python program to read a given .txt file and count total number of 'the' in the given file, find total words and total lines in the file.		

EXPERIMENT NO : 02

TITLE OF EXPERIMENT: Implement Basics of python:

a. Write a program to read (input ()) Celsius temperature and print (print ()) equivalent Fahrenheit temperate on screen.
b. Write three functions that calculate the remainder of two integers by using: (a)the basic operators of +, -, * and / (why is // not required?) (b)the divmod function(c)the % operator
c. Copy-paste this super-nested Python list-dictionary**:** Test=[{'Arizona': 'Phoenix', 'California': 'Sacramento', 'Hawaii': 'Honolulu'}, 1000,2000,3000,['hat', 't-shirt', 'jeans', {'socks1': 'red', 'socks2': 'blue'}]](a)Return 2000 on your screen. (b)Return the dictionary of the cities and states on your screen. (This=[{'Arizona': 'Phoenix', 'California': 'Sacramento', 'Hawaii': 'Honolulu'}. (c)Return the list of the clothes on your screen! (This,['hat', 't-shirt', 'jeans', {'socks1': 'red', 'socks2': 'blue'}]) (d) Return the word 'Phoenix' on your screen. (e) Return the word 'jeans' on your screen. (f)Return the word 'blue' on your screen.

EXPERIMENT NO: 02

Aim: Implement Basics of python:

a. Write a program to read (input ()) Celsius temperature and print (print ()) equivalent Fahrenheit temperate on screen.

b. Write three functions that calculate the remainder of two integers by using:
(a)the basic operators of +, -, * and / (why is // not required?)
(b)the divmod function
(c)the % operator

c. Copy-paste this super-nested Python list-dictionary**:** Test=[{'Arizona': 'Phoenix', 'California': 'Sacramento', 'Hawaii': 'Honolulu'}, 1000,2000,3000,['hat', 't-shirt', 'jeans', {'socks1': 'red', 'socks2': 'blue'}]]
(a)Return 2000 on your screen.
(b)Return the dictionary of the cities and states on your screen.
(c)Return the list of the clothes on your screen!
(d) Return the word 'Phoenix' on your screen.
(e) Return the word 'jeans' on your screen.
(f)Return the word 'blue' on your

2a)

Program:

```
tempC=float(input("Enter the Temperature Celsius:" ))
tempF=tempC*1.8+32
print("Temperature in Celsius =",tempC,"°C")
print("Temperature in Farn =",tempF," °F")
```

Output:

```
Enter the Temperature Celsius:36.5
Temperature in Celsius = 36.5 °C
Temperature in Farn = 97.7  °F
```

2b)

Program:

```
a=int(input("Enter Number1=:"))
b=int(input("Enter Number2="))
print("Quotient=",int(a/b),"Reminder=",a-b*(int(a/b)))
print("Quotient=",a//b,"Reminder=",a%b)
print("Quotient=",divmod(a,b)[0],"Reminder=",divmod(a,b)[1])
```

Output:

```
Enter Number1=:47
Enter Number2=5
Quotient= 9 Reminder= 2
Quotient= 9 Reminder= 2
Quotient= 9 Reminder= 2
```

2c)

Program:

```
Test=[{'Arizona': 'Phoenix', 'California': 'Sacramento',
'Hawaii':'Honolulu'},
1000,2000,3000,['hat', 'shirt', 'jeans', {'socks1': 'red',
'socks2':'blue'}]]
print(Test[2])
print("The Dictionary of cities & states:",Test[0])
print("List of clothes:",Test[4])
print("Word:",Test[0]["Arizona"])
print("Word:",Test[4][2])
print("Word:",Test[4][3]["socks2"])
```

Output:

```
2000
The Dictionary of cities & states: {'Arizona': 'Phoenix',
'California': 'Sacramento', 'Hawaii': 'Honolulu'}
List of clothes: ['hat', 'shirt', 'jeans', {'socks1': 'red',
'socks2': 'blue'}]
Word: Phoenix
Word: jeans
Word: blue
```


EXPERIMENT NO : 03

TITLE OF EXPERIMENT: Write a Python program to check whether a Character is uppercase or lowercase alphabet.

EXPERIMENT NO: 03

Aim: Write a Python program to check whether a character is uppercase or lowercase alphabet.

1)

Program:

```
ch=input("Enter the character:")
if (ch >="A"and ch <="Z"):
  print(ch,"Character is of upper case")
else:
  print(ch,"Character is of lower case")
```

Output:

```
Enter the character:b
b Character is of lower case
```

2)

Program:

```
ch=input("Enter the character")
if(ch >="A" and ch<="Z"):
  print(ch, "is of upper case")
elif (ch>="a" and ch<="z"):
  print(ch, "is of lower case")
else:
  print(ch,"is not a lower case or upper case alphabet")
```

Output:

```
Enter the character$
$ is not a lower case or upper case alphabet
```

3)

Program:

```
ch=input("Enter the Character: ")
if(ch>= "A" and ch <="Z"):
   print(ch, "is upper case alphabet")
elif (ch>="a" and ch <="z"):
   print(ch, "is lower case alphabet")
elif (ch>="0" and ch <="9"):
   print(ch, "is no. between 0 to 9")
else: print(ch, "Is not an alphabet")
```

Output:

```
Enter the Character: c
c is lower case alphabet
```

4)

Program:

```
ch=input("Enter the character: ")
x=ord(ch) #return the unicode code point for a one character
string.
print(x)

if(x>=65 and x<=90):
  print(chr(x),"is upper case alphabet")
elif(x>=97 and x<=122):
  print(chr(x),"is lower case alphabet")
elif(x>=48 and x<=57):
  print(chr(x), "is a digit")
else:
  print(chr(x),"is other character or special symbol")
```

Output:

```
Enter the character: R
82
R is upper case alphabet
```

EXPERIMENT NO : 05
TITLE OF EXPERIMENT: Write a Python program to find factorial of given number (using fact() function).

EXPERIMENT NO: 05

Aim: Write a Python program to find factorial of given number (using fact() function).

Program: (Students write program by hand/ type program/ Copy past screen shot)

1)

```
import math
n = int(input("Enter the number : " , ))
if n <0:
  print("Factorial dosen't exist")
else :
  print("Factorial of ", n , "is" ,math.factorial(n))
```

Output: (Students write program output by hand/ type program output/ Copy past screen shot)

```
Enter the number : 9
Factorial of  9 is 362880
```


Program: (Students write program by hand/ type program/ Copy past screen shot)

```
number = int(input("enter a number: ", ))
factorial = 1
if number<0:
   print("Factorial doesn't exist ")
if number == 0:
   print("the factorial of 0 is 1")
elif number>0:
    for i in range(1, number + 1):
     factorial = factorial * i
    print("factorial of ", number , " is ", factorial)
```

Output: (Students write program output by hand/ type program output/ Copy past screen shot)

```
enter a number: 9
factorial of  9  is  362880
```


EXPERIMENT NO : 04

TITLE OF EXPERIMENT: Create a Python script that finds out your age in a maximum of 10 tries. The script can ask you only one type of question: guessing your age! (e.g. "Are you 67 years old?") And you can answer only one of these three options: (a)Less (b)More (c)Correct

EXPERIMENT NO: 04

Aim: Create a Python script that finds out your age in a maximum of 10 tries. The script can ask you only one type of question: guessing your age! (e.g. "Are you 67 years old?") And you can answer only one of these three options: (a) Less (b) More (c) Correct

Program: (Students write program by hand/ type program/ Copy past screen shot)

```
down = 0
up = 100
for i in range(1,11):
    guessed_age = int((up + down)/2)
    answer = input('Are You'+ str(guessed_age) +
"years old?")
    if answer.lower() == 'correct':
        print("Good,have a nice day.")
        break
    elif answer.lower() == 'less':
         up = guessed_age
    elif answer.lower() == 'more':
         down = guessed_age
    else:
        print('wrong answer')
```

Output: (Students write program output by hand/ type program output/ Copy past screen shot)

```
Are You50years old?less
Are You25years old?less
Are You12years old?more
Are You18years old?correct
Good,have a nice day.
```