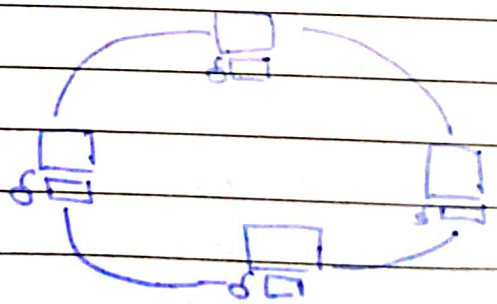
Date 27/06/2022 PYthon Saathi

import keyword
Print ("Hello")
Print ("TyBsc")
Print (keyword.kwlist) ⇒ showing all keyw
Print (keyword.iskeyword('word')) ⇒ for check
x=1; Print (x); y=10; Print (y) valid word.

⇒ Multiple variable in a single line.
⇒ a,b,c = "A", 8, "Raj"
Print (b)
Output = 8

⇒ Repeated command.
Eg ⇒ Print ('TYBSc', 1, 3, 4, 'KBS', 'college', sep=@, '\n')

Output ⇒ TyBsc
1
2
3
KBS
college



⇒ String format() method in Python

x=10
y=20
Print ("x={} and y={}".format(x,y))

Output ⇒ x=10 and y=20

Date 29 / 06 / 2022 Python

Saathi

eval(

x = input ("Enter Anything :- "))

print ("x = ", x, " and type of x = ", type(x))

output ⇒ x = 100 and type of x = <class 'str'>

eval() ⇒ def for define class.

y = int ('c', 16)

print ("y = ", y, and type of y = ", type(y))

c ⇒ this is hexagonal number

output = 12 c = 12

ord ⇒ asci value

e

x = inp

x = eval('input ("Enter Anything :"))

Page No.

Date 6/7/22

Saathi

Python

1) write a python program (+, -, *, /) menudriven

2) " " menudriven function with following choices

i) even odd
Prime / not Prime
Reverse

3) write python program and generate fibonacci

```
ch = 1
while (ch != 4):
    Print ("1. EVEN/ODD", "2. Prime", "3. Reverse", "4. Exit
           sep = "\n")
    ch = eval(input("Enter your choice:-"))
    if (ch >= 1 and ch <= 3):
        num = int(input("Enter a Number-"))
    if (ch == 1):
        Print ("1. Even/ODD")
    elif (ch == 2):
        Print ("2. PRIME")
    elif (ch == 3):
        Print ("3. Reverse")
    elif (ch == 4):
        exit()
    else:
        Print ("wrong choice")
```

Page No.

```
for i in range(1,10):
    Print("i= ", i)
else:
    Print("i >= 10")
```

output
```
i = 1
i = 2
i = 3
- - -
i = 10
```

* Prime number

```
num = eval(input("Enter a number"))
for i in range(2,num):
    if (num % i == 0):
        break
if (i != num-1):
    Print(num, "is not Prime")
else:
    Print(num, "is Prime")
```

* reverse number

```
num = eval(input("Enter a number"))
ans = 0
while (num > 0):
    r = num % 10
    ans = ans * 10 + r
    num = num // 10
Print("ans =", ans)
```

Date __/__/____

for checked location

s = "KBS"
Print ("s = ", s, " and type = ", type(s), " address is ", id(s))

String	

s = 'KBSCOLLEGE'
Print ("s[0] = ", s[0])
Print ("s[-1] = ", s[-1])
Print ("len(s) = ", len(s))

Date 20/7/22 Python

Saathi

```
def myfun():
    Print('inside function')
    Print('myfun')
Print('outside function')
myfun()
def fun2(name='KBS'):
    Print('inside fun2', name)
fun2()
fun2('computee')

def fact(n=1):  # function return value
    ans = 1
    for i in range(1,n+1):
        ans = ans * i
    return ans
Print('ans = ', fact[5]) # function calling
Print('fact() ans = ', fact())

def Printobject(x):  # Object as Parameter
    for val in x:
        Print(val)
Printobject('KBS College')
Printobject([10,20,30,40])
Printobject(1)
```

Saan

Date __/__/____

* Variable number of arguments

```
def dynamicargument (*args):
    for val in args:
        Print ("val = ", val)

dynamicargument (1)
dynamicargument (1,2,3,4,"A","BS")

def rangesum (start, end):
    ans = 0
    if (start == end):
        return start
    else:
        ans = start + rangesum (start+1, end)
    temp = 0
    if start > end:
        temp = start
        start = end
        end = temp
    ans = 0
    if (start == end):
        return start
    else:
        ans = end + rangesum (start, end-1)
    return ans

Print ("rangesum(2,4) = ", rangesum(2,4))
```

Python

Saathi

~~from My~~

```
# import MyMathModule
# Print (MyMathModule.rangesum (2,4))

#import MyMathModule as lib
# Print (lib.rangesum (2,4))

from MyMathModule
```

Date 22/07/22

Python

~~Computer Graphics~~

Saathi

```
mat = [[1,2,3], [3,4], [5,4,3,1], 2]
Print (mat[1][0])
for ele in mat:
    if (type(ele) == type([])):
        for val in ele:
            Print('val =', val)
    else:
        Print (ele)
```

⇒ POP → use for index

count → using for addition (1)

Date 25/7/22 Python

```
x = (100,2,30,4,1)
Print ("type of x = ", type (x))
Print ("x = ", x)
Print ("x[0] = ", x[0])
Print ("x[0:2] = ", x[0:2])
Print ("x = ", x)
Print (
```

Python

* Demo Dictionary.Py

```
d = {0 1: 'vapi', 2: 'valsad' 3: surat }
Print ("type of d = ", type (d))
Print ("d = ", d)
d['a2'] = [5,4,3,2,1]
Print ["after Insert Element"]
Print ["d = ",d]
Students = {1: {'name': 'Rajesh', 'm1': 35, 'm2': 40}
            2: {'name': 'Rajesh', 'm1': 35, 'm2': 40
            3: {'name': 'Nimesh', 'marks': [35,40,45,30,33]}
Print ("students[1] = ", students[1])
Print ("student[1]['name'] = ", students[1]['name'])
Print ("students.get('2') = ", students.get('2'))
```

Page No.

* what is clear method and applica...

Saathi

Date __/__/____

Demo Dictionary-2.py

```
x = {1: 'A', 2: 'B', 3: 'C'}
y = x.copy()
print("x = ", x, "and id() = ", id(x))
x[1] = 'D'
print("y = ", y, "and id(y) = ", id(y))
#y.clear()
y = {}
print("y = ", y, "and id(y) = ", id(y))
print("y.pop() = ", y.pop(2))
d
y.values()
print("y.values() = ", y.values()) #for all value
```

Page No.

Saathi

Date 27 / 7 / 22 Python

⇒ Python Package name ⇒ __init__.py

* a __init__.py *

```
Import MyPackage.Math
Print("1. Factorial", "2. Sum", "3. RangeMul", "4. RangSum",
      "5. Exit", sep='\n')
ch=1
while (ch!=5):
    ch=eval(input("Enter Your choice:-"))
    if (ch==1):
        no=eval(input("Enter a Number:-"))
        Print("Factorial of ", no, MyPackage.Math.
              fact(no))
    elif(ch==2):
        no=eval(input("Enter a number:-"))
        Print("Summation of ", no, MyPackage.Math.
              (no))
elif
```

Date 1/7/22

Python

* DemoArray.py

```
import array as a

mat = a.array('i', [10,20,30])
Print("type of mat = ", type(mat))
mat.append(40)
mat.insert(2, 200)
Print(mat)
Print("mat.index(200) = ", mat.index(200))
```

* DemoArray2.py

```
import numpy as np
x1 = np.array(10)                    # one Dimension Array
x2 = np.array([10,20,30])            # 2 D
x3 = np.array([[1,2,3],[4,5,6]])     # 3 D
x4 = np.array([[[1,2,3],[4,5,6]],[[7,8,9],[10,11,12]]])

Print("x1.ndim = ", x1.ndim)         # ndim => dimension
"     x2.  "   ",  x2.  "
"     x3   "   x3.  "
"     x4   "   "
```

```
Print("x4 = ", x4, "type of x4 = ", type(x4))
Print("x4[0] = ", x4[0])
```

Page No.

Python

* Demo array.py (notepad coding)

```
import numpy as np
x=np.array([0,1,2,3,4,5,6,7,8,9,10,12])
y = x.reshape(3,2,2)
print(y)
for ele in y:
    for c in ele:
        for val in c:
            print(val)
```

*

```
import numpy as np
mydtype =[('eno',int),('name','S15'),('city','S10')]
values = [(2,'Nimesh','Kapi'),(1,'Nitesh','Valsad'),
          (3,'abc','xyz')]
x=np.array(values,dtype=mydtype)
print(np.sort(x,order='eno'))
```

Python

* DemoException.py

```
x = []
try:
    y=1
    # Print("x/0 = ", y/0)
    Print(x[1])
    Print("hello")
except ZeroDivisionError as e:
    Print("Problem in division :- ", e)
except IndexError as e:
    Print("Problem in index :- ", e)
except IndexError as e:
    Print("Problem in index :- ", e)
except Exception as e:
    Print("Problem in Access Data :- ", e)
```