1. Write a Python Program to Display Fibonacci Sequence Using Recursion?
2. Write a Python Program to Find Factorial of Number Using Recursion?
3. Write a Python Program to calculate your Body Mass Index?
4. Write a Python Program to calculate the natural logarithm of any number?
5. Write a Python Program for cube sum of first n natural numbers?

class assignment6:

def logger1(s,y):

import logging as lg

lg.basicConfig(filename="Assignment6.txt",level=lg.DEBUG,format="%(asctime)s %(name)s %(levelname)s %(message)s")

cl = lg.StreamHandler()

cl.setLevel(lg.INFO)

format=lg.Formatter("%(asctime)s %(name)s %(levelname)s %(message)s")

cl.setFormatter(format)

lg.getLogger('').addHandler(cl)

a=lg.getLogger("Assignment6")

a.info(y)

def logger2(s,y):

import logging as l

l.basicConfig(filename="Assignment6.txt",level=l.DEBUG,format="%(asctime)s %(name)s %(levelname)s %(message)s")

c = l.StreamHandler()

c.setLevel(l.ERROR)

format=l.Formatter("%(asctime)s %(name)s %(levelname)s %(message)s")

c.setFormatter(format)

l.getLogger('').addHandler(c)

a=l.getLogger("Assignment6.error")

a.error(y)

def \_\_fibo(s,n):

try:

if n <=1:

return n

else:

return s.\_\_fibo(n-1) + s.\_\_fibo(n-2)

except Exception as e:

s.logger2(str(e))

def fibo\_rec(s):

try:

n=int(input("Enter a number to print the fibonacci series: "))

if n<=0:

s.logger1("enter a positive number greater than 0")

else:

s.logger1("Fibonacci Sequence")

for i in range(n):

s.logger1(str(s.\_\_fibo(i)))

except Exception as e:

s.logger2(str(e))

def \_\_fact(s,n):

try :

if n ==1:

return n

else:

return (n\*s.\_\_fact(n-1))

except Exception as e:

s.logger2(str(e))

def factorial(s):

try :

n= int(input("Enter a number to find the factorial of it: "))

if n<=0:

s.logger1("Factorial of number doesnot exist for number less than 1 ")

else:

s.logger1("Factorial of given number is "+str(s.\_\_fact(n)))

except Exception as e :

s.logger2(str(e))

def BMI(s):

try:

kg=float(input('Enter the body mass in kg: '))

m=float(input('Enter height in meter: '))

bmi= kg/(m\*m)

s.logger1("The Body Mass Index for "+str(kg)+" Body mass and body height "+str(m)+" is " +str(bmi))

except Exception as e :

s.logger2(str(e))

def natural\_log(s):

try:

import math

n =float(input("Enter a number to find the natural logarithm: "))

l= math.log(n)

s.logger1("The natural logarithm is : "+str(l))

except Exception as e :

s.logger2(str(e))

def cube\_sum\_of(s):

try:

n=int(input("Enter a number to find the sum of cube of all the natural number upto it : "))

sum = 0

for i in range(1,n+1):

sum = sum + (i\*i\*i)

s.logger1("The sum of cube of all the natural numbers are : "+str(sum))

except Exception as e :

s.logger2(str(e))

def \_\_str\_\_(s):

return "End of Assignment 6"