# Assignment 1:

# 

# Assignment 2:

# 

# 

# 

# 

# Assignment 4:

1.To check whether a given number is even or odd.

Input number

If(number % 2 ==0) then

Display “even”

Else

Display ”odd”

End if

2.To print the multiples of 3 between 1 to 20.

For(i=1;i<=20;i=i+1)

Display (i%3==0)

End for

3. To ﬁnd factorial of a given number.

Input number

Factorial=1

For(i=number;i>0;i--)

Factorial = factorial\*i

End for

Display”factorial of the number is ”, factorial

4.To calculate ‘x’ to the power of ‘n’ using a while loop.

•Assume both ‘x’ and ‘n’ are positive whole number

Input x

Input n

While(n>0) do

x=x\*x

n=n-1

End while

Display”answer is ”, x

# Assignment 5:

>>> 10+15

25

>>> print("hello world")

hello world

>>> 45-34

11

>>> 8\*2

16

>>> print("rahul's age is ", 45)

rahul's age is 45

>>> print("I have ", 10, "mangoes and ", 12, "bananas")

I have 10 mangoes and 12 bananas

>>>

# Assignment 6:

emp\_number = 1233

>>> print("Employee Number:", emp\_number)

Employee Number: 1233

>>> emp\_salary = 16745.50

>>> emp\_name = "Jerry Squaris"

>>> print("Employee Salary and Name:", emp\_salary, emp\_name)

Employee Salary and Name: 16745.5 Jerry Squaris

>>> emp\_salary = 23450.34

>>> print("Updated Employee Salary:", emp\_salary)

Updated Employee Salary: 23450.34

# Assignment 7:

>>> customer\_id = 101

>>> type(customer\_id)

<class 'int'>

>>> customer\_name = "John"

>>> type(customer\_name)

<class 'str'>

>>> bill\_amount = 675.45

>>> type(bill\_amount )

<class 'float'>

>>> x = 5.3 + 0.9j

>>> type(x)

<class 'complex'>

>>> print(customer\_id, customer\_name, bill\_amount)

101 John 675.45

>>> print(x.real)

5.3

>>> print(x.imag + 3)

3.9

>>> Flag = True

>>> type(Flag)

<class 'bool'>

>>>

# Assignment 8:

customer\_id = 9833858057

customer\_name = 'Susan thomas'

Bill\_id = 123

Bill\_amount = 231

print('Name of customer : ', customer\_name)

print('ID of customer : ', customer\_id)

print('Bill ID of customer : ', Bill\_id)

print('Bill amount of customer : ', Bill\_amount)

# Assignment 9:

num = 10

print('value : ', num)

print(type(num))

boolean = True

print(boolean)

print(type(boolean))

boolean = 12

print(boolean)

print(type(boolean))

# Assignment 10:

Input

num1 = input("Enter 1st number: ")  
num2 = input("Enter 2nd number: ")  
num1 = int(num1) + 4  
num2 = int(num2) + 6  
print("Sum: ", num1 + num2)

Output

C:\Users\User\AppData\Local\Programs\Python\Python37\python.exe C:/Users/User/PycharmProjects/untitled/Module1.py  
Enter 1st number: 20  
Enter 2nd number: 30  
Sum:  50  
  
Process finished with exit code 0

# Assignment 11:

**Source Code:**

1. a = 4

b = 5

a=a+b;

b=a-b;

a=a-b;

print(a)

print(b)

1. a = int(input('Enter marks 1: '))

b = int(input('Enter marks 2: '))

c = int(input('Enter marks 3: '))

print((a+b+c)/3)

a = int(input('Enter marks 1 again: '))

print((a+b+c)/3)

Yes, the average has changed.

1. pi = 3.14

r = 10

print('Area = ',pi\*r\*r)

print('Circumference = ',2\*pi\*r)

1. hours = 40

rate = 400

weeks = 4

print('Monthly pay = ',hours\*weeks\*rate)

**Output:**

1. 5

4

1. Enter marks 1: 79

Enter marks 2: 55

Enter marks 3: 98

77.33333333333333

Enter marks 1 again: 88

80.33333333333333

1. Area = 3.14

Circumference = 62.80000000000000004

1. Monthly pay =  64000

# Assignment 12:

**Assignment Question:**

Identify the sections of the given program where the coding standards are not followed and correct them.

itemNo=1005

unitprice = 250

quantity = 2

amount=quantity\*unitprice

print("Item No:", itemNo)

print("Bill Amount:", amount)

* All letters in name of variable have to be in lowercase.
  + So, itemNo is wrong. It will be itemno.
* For two words in name of variable, underscore should be used between internal words.
  + So, itemNo should be changed to item\_no
  + unitprice should be changed to unit\_price
* Spaces should be put around binary operators.
  + So, re writing the code to comply with coding standards:
  + item\_no = 1005
  + unit\_price = 250
  + quantity = 2
  + amount = quantity \* unit\_price
  + print("Item No:", item\_no)

print("Bill Amount:", amount)

# Assignment 13:

**Source Code:**

1. def check(x):

   if(x>=1000):

       x = x - x/20

   elif(x>0 and x<500):

       x = x - x/100

   else:

       x = x - x/50

   print('Total bill after discount = ',x)

x = int(input('Enter bill amount 1: '))

check(x)

x = int(input('Enter bill amount 2: '))

check(x)

x = int(input('Enter bill amount 3: '))

check(x)

1. def check(x):

   if(x>=1000):

       x = x - x/20

   elif(x>0 and x<500):

       x = x - x/100

   else:

       x = x - x/50

   print('Total bill after discount = ',x)

x = int(input('Enter bill amount: '))

check(x)

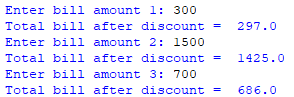
y = int(input('Enter customer ID: '))

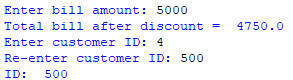
while(y<100 or y>1000):

   y = int(input('Re-enter customer ID: '))

print('ID: ',y)

**Output:**





# Assignment 14:

**Source Code:**

1. for i in range(50,81):

   if(i%2==0):

       print(i)

1. n = int(input('Enter a number: '))

sum = 0

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

   sum +=i

print(sum)

1. n = int(input('Enter a number: '))

flag = 1

for i in range(2,n):

   if(n%i==0):

       flag = 0

if(flag==0):

   print('Not prime')

else:

   print('Prime')

1. n = int(input('Enter a number: '))

a = 1

b = 1

list = []

list.append(a)

list.append(b)

sum = 0

for i in range(2,n):

   sum = a + b

   a = b

   b = sum

   list.append(sum)

print(list)

**Output:**

https://lh5.googleusercontent.com/JU-xIcJK04TJNNQimgAdgJ-2Ptxm8vy5JlqiIVhhMoKOo6OG4vh1Yr3EzACfyu9BOTGMtM1gBFRVSJS9or7LDSziMHqhVC6orNiJlKVdSILjCbxiSVvDO953wxeTEM6TV7AiRCg-VEvothat9g

https://lh6.googleusercontent.com/koCpIUHqkxZhMDUpjDYtyu22SxkVMYwJvLMadOirgX10JcdAPrzedJAuL_qhDaGoAk4j6-iAKrmGgacjHCJYU8qDzWLLL08z0vZiZGUypoDjB55H8IM11p7zoyih-sr09t57RcngAcNVBEalZg

https://lh5.googleusercontent.com/8MHSC7EuIe3qFHMoLua6COlrcc27FDlGBwnuGSOByUnkpmb9IhvwHNz6mY2UyO6thZL3UlbVT-U-_Bo3Wh9zPSe58xItFdjc20rXfOioBvKv6K84kYDdA1dQh0k3YmnpCHjOYieA34hQtDCHFQ

https://lh5.googleusercontent.com/NLXHQeh5kyzBW9JSsDB8q-p08lDaVkFPwB_7XbHX_VP5UgjjDUtkvANTjKwC1aMiZTMtsVZDKfAJBQulzIW05wPbpfXd8XvsbJJwUO68H2W365AptwCI-7_lCsammIuPPDPPypenCU_9kEhtUQ

# Assignment 15:

**Code:**

a="My city is Mexico"

b="Raghu is my friend's brother"

c='My favorite programming language is "Python"'

d="""Python is a widely used high-level, general-purpose, interpreted, dynamic programming language. It's design philosophy emphasizes code readability, and it's syntax allows programmers to express concepts in fewer lines of code than possible in languages such as "C++" or "Java"."""

print(a,'\n',b,'\n',c,'\n',d)

**Output:**  
My city is Mexico

Raghu is my friend's brother

My favorite programming language is "Python"

Python is a widely used high-level, general-purpose, interpreted, dynamic programming language. It's design philosophy emphasizes code readability, and it's syntax allows programmers to express concepts in fewer lines of code than possible in languages such as "C++" or "Java".

# Assignment 16:

**Code**:

inp=input("Enter string: ")

rev=""

for i in inp:

rev=i+rev

print(rev)

if inp.lower() == rev.lower():

print("String is Palindrome")

else:

print("String is not a Palindrome")

**Output**:

Enter string: Mam

maM

String is Palindrome

# Assignment 17:

**Code**:

a = input("String 1: ")

b = input("String 2: ")

ans=""

for i in a:

if i.isupper():

ans+=i

for i in b:

if i.isupper():

ans+=i

print(ans)

**Output:**

String 1: Arpit Kamlesh

String 2: Kubadia

AKK

# Assignment 18:

**Code**:

str=input("Enter String: ")

str=str.lower()

while str!="":

temp\_str = ""

count = 0

for j in str:

if str[0]==j:

count+=1

else:

temp\_str+=j

print(str[0],":",count)

str=temp\_str

**Output:**

Enter String: ABaBCbGc

a : 2

b : 3

c : 2

g : 1

# Assignment 19:

**Code**:

inp=input("Enter String: ")

res=""

inp\_2=""

for i in inp:

if(i==" "):

continue

else:

inp\_2+=i;

for i in range(0,len(inp\_2),2):

res+=inp\_2[i]

out=""

for i in res:

out=i+out

print(out)

**Out**:

Enter String: An apple a day keeps the doctor away

ywrtoetpeydepaA

# Assignment 20:

**Code:**

n=int(input("Enter n: "))

l=[0,1]

for i in range(2,n):

l.append(l[i-1]+l[i-2])

print(l)

**Output**

Enter n: 5

[0, 1, 1, 2, 3]

# Assignment 21:

**Code**

furniture=["Sofa Set","Dining Table","TV Stand","Cupboard"]

cost=[20000,8500,4599,13920]

req=input("Furniture you want: ")

qty=int(input("Quantity: "))

if req in furniture:

print("Furniture: ",req)

print("Amount = ",qty\*cost[furniture.index(req)])

else:

print("Not Found")

**Output:**

Furniture you want: Cupboard

Quantity: 3

Furniture: Cupboard

Amount = 41760

# Assignment 22:

**Code**

courses = ("Python Programming", "RDBMS", "Web Technology", "Software Engg.")

electives = ("Business Intelligence", "Big Data Analytics")

print(len(courses))

print(courses)

print(courses + electives)

Output:

4

('Python Programming', 'RDBMS', 'Web Technology', 'Software Engg.')

('Python Programming', 'RDBMS', 'Web Technology', 'Software Engg.', 'Business Intelligence', 'Big Data Analytics')

# Assignment 23:

**Code**

customer\_details = { 1001 : "John", 1004 : "Jill", 1005: "Joe", 1003 : "Jack" }

print(customer\_details)

print(customer\_details.keys())

print(customer\_details.values())

print([value for (key, value) in sorted(customer\_details.items())])

del(customer\_details[1005])

print(customer\_details)

customer\_details[1003]="Mary"

print(customer\_details)

if 1002 in customer\_details.keys():

print("Available")

else:

print("Unavailable")

**Output:**

{1001: 'John', 1004: 'Jill', 1005: 'Joe', 1003: 'Jack'}

dict\_keys([1001, 1004, 1005, 1003])

dict\_values(['John', 'Jill', 'Joe', 'Jack'])

['John', 'Jack', 'Jill', 'Joe']

{1001: 'John', 1004: 'Jill', 1003: 'Jack'}

{1001: 'John', 1004: 'Jill', 1003: 'Mary'}

Unavailable

# Assignment 24:

**Code:**

student={"John":86.5,"Jack":91.2,"Jill":84.5,"Harry":72.1,"Joe":80.5}

print(student)

print(sorted(student, key=student.get, reverse=True)[:2])

avg=0

for key in student.keys():

avg+=student[key]

avg=avg/len(student)

print(avg)

**Output:**

{'John': 86.5, 'Jack': 91.2, 'Jill': 84.5, 'Harry': 72.1, 'Joe': 80.5}

['Jack', 'John']

82.96

# Assignment 25:

**Source Code:**

**USING LIST OF TUPLES:**

list = []

tup1 = ('sofa set', 'dining table', 'tv stand', 'cupboard')

tup2 = (20000, 8500, 4599, 13920)

list.append(tup1)

list.append(tup2)

print(list)

fur = input('Enter the furniture name: ')

while fur not in list[0]:

   print('Invalid. Enter again.')

   fur = input('Enter the furniture name: ')

quant = int(input('Enter the quantity: '))

while (quant<0):

   print('Invalid. Enter again.')

   quant = int(input('Enter the quantity: '))

j = 0

for i in list[0]:

   if(i==fur):

       j = (list[0]).index(i)

       break

bill = 0

bill = ((list[1])[j])\*quant

print('Your total bill is: ',bill)

**USING DICTIONARIES**

dict = {'sofa set': 20000, 'dining table': 8500, 'tv stand': 4599, 'cupboard': 13920}

fur = input('Enter the furniture name: ')

while fur not in dict.keys():

   print('Invalid. Enter again.')

   fur = input('Enter the furniture name: ')

quant = int(input('Enter the quantity: '))

while (quant<0):

   print('Invalid. Enter again.')

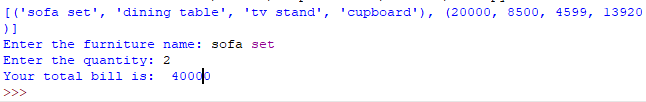
   quant = int(input('Enter the quantity: '))

bill = 0

bill = dict[fur]\*quant

print('Your total bill is: ',bill)

**Output:**



https://lh6.googleusercontent.com/cYV8pYw8VmkQZIQnxDa-hML6ePNfMY7g4WtMOV8t2OfSBN4IT2YRJ95yBsM4b2BwR5NpMkevlcmMEiSFoJJa1NbPpPDiTlj2jm9hl1OMsOtea2zEJ9v_0oc6c1b4-SN0wQUtaRIN9My4fFCcbg

# Assignment 26:

**Source Code:**

java\_course = {"John", "Jack", "Jill", "Joe"}

python\_course = {"Jake", "John", "Eric", "Jill"}

one = java\_course.difference(python\_course)

two = python\_course.difference(java\_course)

print('Students enrolled in python course are: ',python\_course)

print('Students enrolled in java course ONLY are: ',java\_course.difference(python\_course))

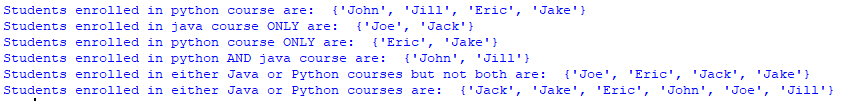
print('Students enrolled in python course ONLY are: ',python\_course.difference(java\_course))

print('Students enrolled in python AND java course are: ',python\_course.intersection(java\_course))

print('Students enrolled in either Java or Python courses but not both are: ',one.union(two))

print('Students enrolled in either Java or Python courses are: ',python\_course.union(java\_course))

**Output:**



# Assignment 27:

**Source Code:**

def natural(n):

   sum = 0

   for i in range(1,n+1):

       sum +=i

   print(sum)

def fib(n):

   a = 1

   b = 1

   list = []

   list.append(a)

   list.append(b)

   sum = 0

   for i in range(2,n):

       sum = a + b

       a = b

       b = sum

       list.append(sum)

   print(list)

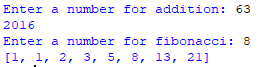
n = int(input('Enter a number for addition: '))

natural(n)

n = int(input('Enter a number for fibonacci: '))

fib(n)

**Output:**



# Assignment 28:

**Source Code:**

def check\_baggage(baggage\_weight):

   if(baggage\_weight>=0 and baggage\_weight<=40):

       return True

   else:

       return False

def check\_immigration(expiry\_year):

   if(expiry\_year>=2001 and expiry\_year<=2025):

       return True

   else:

       return False

def check\_security(noc\_status):

   noc\_status = noc\_status.casefold()

   if(noc\_status=='valid'):

       return True

   else:

       return False

def traveler():

   traveler\_id = 1001

   traveler\_name = 'Jim'

   baggage\_weight = 35

   expiry\_year = 2019

   noc\_status = 'VALID'

   print('ID: ',traveler\_id)

   print('Name: ',traveler\_name)

   if(check\_baggage(baggage\_weight) and check\_security(noc\_status) and check\_immigration(expiry\_year)):

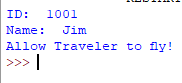
      print("Allow Traveler to ﬂy!")

   else:

       print("Detain Traveler for Re-checking!")

traveler()

**Output:**



# Assignment 29:

**Source Code:**

def fibo(number):

   if (number == 0):

       return(0)

   elif (number == 1):

       return (1)

   else:

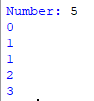
       return (fibo(number - 1) + fibo(number - 2))

number = int(input('Number: '))

for i in range(number):

   print(fibo(i))

**Output:**



# Assignment 30:

**Source Code:**

def mult(n):

   if n == 1:

       return 3

   else:

       return mult(n-1) + 3

n = int(input('Enter a number: '))

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

   print(mult(i))

def reverseSentence(c):

   stri = ''

   if( c !=' '):

       reverseSentence(c)

       stri = stri + c

   print(str)

c = input("Enter a sentence: ")

reverseSentence(c)

def pali(s):

   if len(s) < 1:

       return True

   else:

       if s[0] == s[-1]:

           return pali(s[1:-1])

       else:

           return False

a=str(input("Enter string:"))

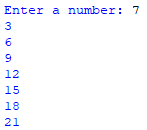
if(pali(a)==True):

   print("String is a palindrome!")

else:

   print("String isn't a palindrome!")

**Output:**



https://lh3.googleusercontent.com/lgxj0LlV5cSQFhT1N3TD79gvr_RKFg6wKFg5BqwFEsO_8EWPzaIDg5imXAMN4dNzixBvyyN2RR6ZyO9yIedewU2fL2F-9EiQkdbvJAGRIWQOcue5YhL8cnDxqnIGJH2TkKfHY1UlT92fUgjg9Q

https://lh3.googleusercontent.com/f_7aiQgnHMUt7WnH2R1_T5zyQ0da93A7r-eEyTFr1WhAfztkG6cI0XRtYAoTZxeFa2nuPuNmZiOi3RHoogTYgL3as99PZH3EiO3zRiGCln24bnGL5pvuXXD5Y8_mkRvpvkfEQCgxB301uWP69w

# Assignment 31:

**Source Code:**

f = open("MyFile1.txt", "r")

g = open("MyFile2.txt", "w+")

contents = f.read()

for i in contents:

   if(i=='"'):

       str = '\\'+i

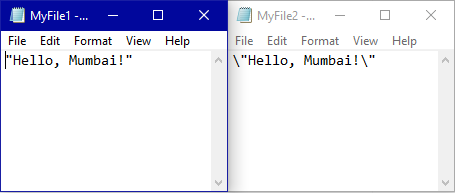
       g.write(str)

   else:

       g.write(i)

g.close()

**Output:**



# Assignment 32:

**Source Code:**

f = open("courses.txt","r")

contents = f.read()

dict = {}

j = 0

str = ''

for i in contents:

   if(i=='\n'):

       dict[j] = str

       str = ''

       j+=1

   else:

       str = str + i

print(dict)

**Output:**

https://lh4.googleusercontent.com/nryyuggYf2YFckAgwUd_ns1gRMHWqddXZ9OBIK-BKQ7orIqKaZJ68sG8qHGxCLhF6Ha_M6b8DsZj34W_Au_0bj4T6v8hxz7j6TFnpasiaNw9rxf5hAfM7yipRBkJy9JxYtTT0gSg1Hc2XBDLXg

# Assignment 33:

**Source Code:**

f = open("student\_details.txt","r")

list = []

lister = []

dict = {}

j = 0

for line in f:

   for word in line.split():

       lister.append(word)

   list.append(lister)

   lister = []

print(list)

j = 0

for i in range(4):

   dict[(list[j])[0]] = (list[j])[1]

   j+=1

print(dict)

**Output:**

https://lh5.googleusercontent.com/XBAfEr6q2kwVjUjsjlCoXbc7F0hMEpa6pOFaNjfxboXqZBoEZMFvYkO9Cc_1AWHqBiwHdQwZwFP3p-gPqm6fJjuW6PsiH5lfVNzsCPiFYWJDf-g15tbkUvod0pjVVlM5gZSpPohx9pTAFWAEIA

# Assignment 34:

**Source Code:**

f = open("rhyme.txt","r")

dict = {}

j = 0

for line in f:

   for word in line.split():

       word = word.casefold()

       if word in dict.keys():

           dict[word]+=1

       else:

           dict[word] = 1

g = open("words.txt","w+")

for keys,values in dict.items():

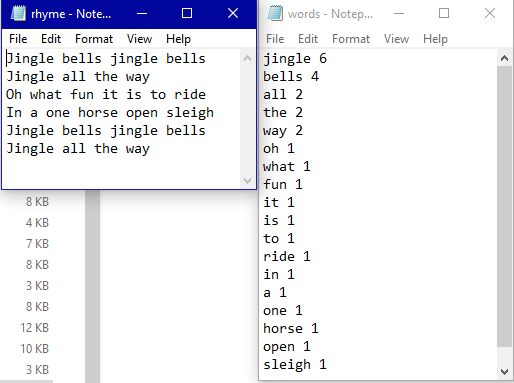
   string = ''

   string = keys + " " + str(values) + "\n"

   g.write(string)

g.close()

**Output:**



# Assignment 35:

**Source Code:**

mylist = [1,2,3,"4",5]

sum = 0

try:

   for i in mylist:

       sum+=i

except TypeError:

   print('Invalid type entered!')

print(sum)

try:

   print(mylist[5])

except IndexError:

   print('Index out of range!')

**Output:**

https://lh6.googleusercontent.com/2KVRTkal4_hNhhmVQdzaJI-bBlfim3eU6atXyH3kZ2w8M868uR4fFbwqyRE_p1WJW9Awii95Z3h6N6Ew8XxKkjWaD9-HoKp1Ux5XzoIosaVxSV0VxvSjDrxR9mTT8ou_r8vIZ_DPF3hjlOGmGg

# Assignment 36:

**Source Code:**

try:

   f = open("MyFile3.txt", "r")

except FileNotFoundError:

   print('Wrong file name entered!')

g = open("MyFile2.txt", "w+")

try:

   contents = f.read()

   for i in contents:

       if(i=='"'):

           str = '\\'+i

           g.write(str)

       else:

           g.write(i)

except NameError:

   print('Function name f not entered!')

g.close()

**Output:**

https://lh5.googleusercontent.com/SGSkb0fzpfz0VhEX0aSqATIJfHQ-QYE_TfOcm6VCG-RrgQntfMjgV_fLGQmfGsqzitsMIJYbPO6MXJr7Kw1w8790iEH5BxMIcGDKTAmYO6rPmsh5Fruig8_gYQrLsTWJU1NYc9U5kOjL2aAb_Q

# Assignment 37:

**Source Code:**

def natural(n):

   sum = 0

   for i in range(1,n+1):

       sum +=i

   print(sum)

try:

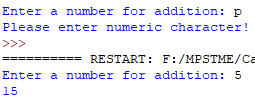
   n = int(input('Enter a number for addition: '))

   natural(n)

except ValueError:

   print('Please enter numeric character!')

**Output:**



# Assignment 38:

**Source Code:**

def check\_baggage(baggage\_weight):

   if(baggage\_weight>=0 and baggage\_weight<=40):

       return True

   else:

       return False

def check\_immigration(expiry\_year):

   if(expiry\_year>=2001 and expiry\_year<=2025):

       return True

   else:

       return False

def check\_security(noc\_status):

   noc\_status = noc\_status.casefold()

   if(noc\_status=='valid'):

       return True

   else:

       return False

def traveler():

   try:

       traveler\_id = int(input('Enter ID: '))

       traveler\_name = 'Jim'

       baggage\_weight = 35

       expiry\_year = 2019

       noc\_status = 'VALID'

   except ValueError:

       print('Input is invalid!')

   try:

       print('ID: ',traveler\_id)

       print('Name: ',traveler\_name)

       if(check\_baggage(baggage\_weight) and check\_security(noc\_status) and check\_immigration(expiry\_year)):

          print("Allow Traveler to ﬂy!")

       else:

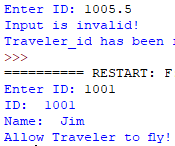
           print("Detain Traveler for Re-checking!")

   except UnboundLocalError:

       print('Traveler\_id has been referenced before assignment')

traveler()

**Output:**



# Assignment 39:

**Source Code:**

Test\_module.py:

from number\_checker import is\_prime

from number\_checker import is\_even

n = int(input('Enter a number: '))

print(is\_prime(n))

print(is\_even(n))

number\_checker.py:

def is\_prime(n):

   flag = 1

   for i in range(2,n):

       if(n%i==0):

           flag = 0

   if(flag==0):

      return ('Not prime')

   else:

       return ('Prime')

def is\_even(n):

   if(n%2==0):

       return ('Even')

   else:

       return ('Not even')

**Output:**

https://lh5.googleusercontent.com/9hoM0HJKuB3y7s-tipHABxx9kfUBBFDI1Rq8gUnTz9KsrRhi5qzyO_8y-UtuXOBZWQVKcSxbik087IGiI0cimJe2dudhxzl6JYTCunzOW-YegPpF_eSlJtvpplFalU3UGM_wMjgcXAsI_l9Erw

# Assignment 40:

**Source Code:**

import random

list = [10,200,300,400,500,600,700,800,900,1000]

for x in range(10):

 print(random.choice(list))

import random

j = 0

while(j<1):

   i = random.randint(10,51)

   if(i%2!=0):

       print(i)

       j+=1

**Output:**

https://lh5.googleusercontent.com/fIV8L-QvGpaG-IYGl9LRyBA7wJqaAAMqjIl26jYJ63JSxrdxrZ_ku0FADV83xePMB0YcuboZcg1sZEoXIl-cljFXaUNLreXffDj085NVszZFxJ610jxkzhzX5JZareL1kVHp_UqwE0ZqIjXEew

https://lh4.googleusercontent.com/2FFo1z9WjRffYRUVtr8wwCAJTpmk7wZYt2zZuxrvf6p5tPrnT452zzXxvQxh_RFnf2asp1k4GfOSrjeJxoW-sThezwm7-hN_R1uHhbsTi1RbcONW9T7Yl8uR0IPG9G_cYmecj6rp7M8lfGJyiA

# Assignment 41:

**Source Code:**

import random

list = [1,2,3,4,5,6]

n = input('Enter: ')

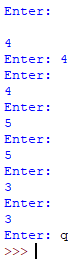
q = ['Q', 'q']

while(n not in q):

   print(random.choice(list))

   n = input('Enter: ')

**Output:**



# Assignment 42:

**Source Code:**

import math

area = 16

side = math.sqrt(area)

print('Area: ',math.sqrt(area))

vol = print('Volume: ',math.pow(side,3))

**Output:**

https://lh6.googleusercontent.com/QHDtxm1HXtDqMdRV53hoxtpd3Y5kwi742hQ44RaDBx1LMdalAYnNzEl4gQHUdPwvvmqi_HmDjwiijjqpjWxFpxHRaGDIEcgYJZVTwVM-nPWx3ZcsV3ULnXpGqOjQBz8qLAYHrfoqGcZhX7EPKA

# Assignment 43:

**Source Code:**

import math

n = int(input('Enter the number of courses: '))

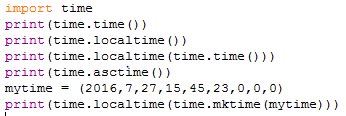
print('No. of course combinations: ',math.factorial(n))

**Output:**

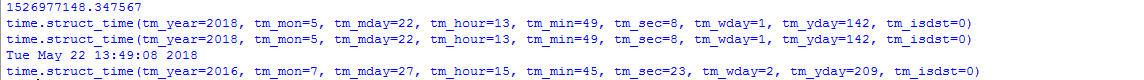
https://lh6.googleusercontent.com/NwdisaNWI7ALA3U_RLMwBbRBrtAPuAY8r3VpgToAeriZy2azBqRJR00-cVonwTGOXFtAyJreEnwTfCwdt6LMgfCo97pppCwS4uF1b1ejmhqNZmVGG1iT5JqIQ0NzLhGSNxCAtTUknjm04xxibw

# Assignment 44:

**Source Code:**



**Output:**



# Assignment 45:

**Source Code:**

import re

cust\_details = "Hello John, your customer id is j181"

l=cust\_details.split()

try:

   re.search('^(Hello|hello)\s[A-Z]',cust\_details).group()

   print('Hello is before customer.')

except AttributeError:

   print("Hello is not before customer.")

try:

   print('Pattern Found: ',re.search('^[a-zA-Z]{1}\d{3}$', l[len(l)-1]).group())

   cust\_details = re.sub(r'j','',cust\_details)

   cust\_details = re.sub(r'id','ID',cust\_details)

   print(cust\_details)

except AttributeError:

   print("Pattern not found.")

**Output:**

https://lh6.googleusercontent.com/GN_XlvxmYDJ-NUbrLkyht4xCqf2GGvjUOKFjS4T3zjX986PVJX89TsW76dnWFoNKSdiyonFO1pFCfYSJWN-b9a2Ps_FKjDRdCgKPnBXn9kVq1-lw5y7-tvRRcIPdzPXnulp3Qt9GLcelyGUMgw

https://lh5.googleusercontent.com/RJQpDKXNF0zBtDej-ztNPno-LWQ-7K-es_cusKlFgutAWRipvGaOE6f9HX5zEXQI4NZAOdnRZO1Kk__jCMZHm5MX0rE0m6Wql2Sw5qwwZiFgCsN7p5TdLeQFlxHaq_x7dbL8sJ1jFPguGVqk1w

https://lh3.googleusercontent.com/ZMnTOhgh8t5wJxtJHQ0ndhGqCjlGAIh7CH_IpywBtbcc0oTlo_IBuAIB0KwxhoDPtCUHIXy8yoWatNNJaXLKPE2elPWT1h9FKYJGB4WYUSyI1gvtDDQNpxpTmq-A8XDP1T_oYY_fu5dXCkRAGw

# Assignment 46:

**Source Code:**

import re

student\_id = input("Enter Student ID: ")

try:

   re.search('^\d{1,}$',student\_id).group()

   student\_name = input("Enter Student Name: ")

   try:

       re.search('^[a-zA-Z]{1,}$',student\_name).group()

       fees\_amount = input("Enter Fee Amount: ")

       try:

           re.search('^\d{1,}.?\d{0,2}$',fees\_amount).group()

           email\_id = re.compile('%s@ABC.com'%student\_name)

           print("\nStudent Details: ")

           print("Student ID: ",student\_id)

           print("Student Name: ",student\_name)

           print("Fee Amount: ",fees\_amount)

           print("Email ID: ",email\_id.pattern)

       except AttributeError:

           print("Only one decimal point allowed and can accept only upto two decimal places")

   except AttributeError:

        print("Student name can contain only alphabets")

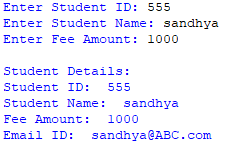
except AttributeError:

   print("Student ID can contain only digits")

**Output:**

https://lh6.googleusercontent.com/quni86jIh6vh_3XuaMxKP9SO2syfO1TpfuMcHGMmFHrtsLWXWpHbTbXyMHZpL4fI8hqQl1ghcQoOX-P475vp3eFqOImooIs_UvCPkyRhy5Ei53jCnFOkwpBwkUs4SpYG_UiDvHm4-St-wPsyZQ

https://lh4.googleusercontent.com/UPGCc05HS7B0oOt17dLbiGH4bbP7b3hrOqIgvGHu7bX2KfiI5AY2UCFboSWfYdTF8lY8-N1epHJ7l03vVEV5Fc8qBeYho-_Y8nwBoeXZFVr1PKCImlh3tlJa373SYTdd59K6pEvh-cIm54z0OQ



# Assignment 47:

**Source Code:**

my\_string = "Strings are amongst the most popular data types in Python. We can create the strings by enclosing characters in quotes. Python treats single quotes the same as double quotes."

list = []

list = my\_string.split()

print(list)

count = 0

for i in list:

   i = i.casefold()

   if(i=='strings'):

       count+=1

print('No. of times strings has occured = ',count)

count = 0

for i in list:

   str = i[-2] + i[-1]

   if(str=='on'):

       count+=1

print('No. of times words ended with "on": ',count)

count = 0

for j in list:

   for k in range(len(j)):

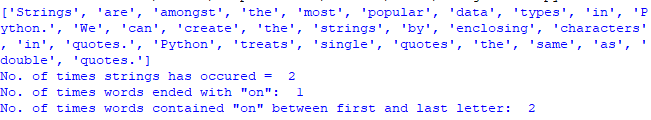
       if((j[k]=='o') and (j[k+1]=='n')):

           if((k+1)!=(len(j)-1)):

               count+=1

print('No. of times words contained "on" between first and last letter: ',count)

**Output:**



# Assignment 48:

**Source Code:**

items\_price = [1050,2200,8575,485,234,150,399]

print('Costliest item: ',max(items\_price))

print('No. of items: ',len(items\_price))

items\_price.sort()

print('Ascending order: ',items\_price)

items\_price.sort(reverse = True)

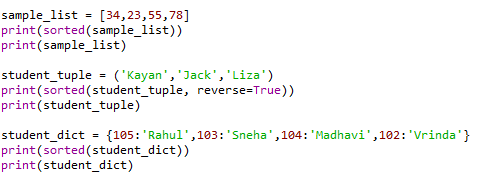
print('Descending order: ',items\_price)

**Output:**

https://lh4.googleusercontent.com/pGeiDvcZQzSFr3WttAyx9xQXPPym8VebwT9pyigq9CMdj-16idfG5ZJhkJk2eIt00wb_z_hMQZYt-sodxqOIJZNPtN9yY1TLi-3pHJIB2GPk8eHWyHCjyMyw6OEIdXEezp__xCt8hDF1rv3Pyw

# Assignment 49:

**Source Code:**



**Output:**

