Experiment :1

**Que:** Write a program that asks the user for a weight in kilograms and converts it to pounds. There are 2.2 pounds in a kilogram.

**Aim:** To write a program that asks the user for a weight in kilograms and converts it to pounds. There are 2.2 pounds in a kilogram.

**Program Code:**

weight=int(input("Enter the weight:"))

pounds=weight \* 2.2

print("Weight in pounds:",pounds)

**Apparatus:**

* Computer
* Python Software

**Output:**

Enter the weight: 35

Weight in pounds: 77

Experiment:2

**Que:** Write a program that asks the user to enter three numbers (use three separate inpustatements). Create variables called total and average that hold the sum and averageof the three numbers and print out the values of total and average.

**Aim:** write a program that asks the user to enter three numbers (use three separate inpu statements). Create variables called total and average that hold the sum and average of the three numbers and print out the values of total and average.

**Program Code:**

a=int(input("Enter 1st Number:"))

b=int(input("Enter 2nd Number:"))

c=int(input("Enter 3rd Number:"))

total=a+b+c

average=(a+b+c)/3

print("Total=",total)

print("Average=",average)

**Apparatus:**

* Computer
* Python Software

**Output:**

Enter 1st Number:2

Enter 2nd Number:5

Enter 3rd Number:7

Total= 14

Average= 4.666666666666667

Experiment:3

**Que:** Write a program that uses a for loop to print the numbers 8, 11, 14, 17, 20, . . . , 83,86,89.

**Aim:** To rite a program that uses a for loop to print the numbers 8, 11, 14, 17, 20, . . . , 83, 86,89.

**Program Code:**

for i in range(8,90,3):

print(i)

**Apparatus:**

* Computer
* Python Software

**Output:**

8

11

14

17

20

23

26

29

32

35

38

41

44

47

50

53

56

59

62

65

68

71

74

77

80

83

86

89

Experiment:4

**Que**: Write a program that asks the user for their name and how many times to print it. The program should print out the user’s name the specified number of times.

**Aim:** To write a program that asks the user for their name and how many times to print it. The programshould print out the user’s name the specified number of times

**Program Code:**

name= input(‘enter the name:’)

repeat=int(input(‘enter the count:’))

print(name\*repeat)

**Apparatus:**

* Computer
* Python Software

**Output:**

enter the name:python

enter the count:3

pythonpythonpython

Experiment:5

**Que:** Use a for loop to print a triangle like the one below. Allow the user to specify howhigh the triangle should be.

\*

\*\*

\*\*\*

\*\*\*\*

**Aim:** To write a program that Uses a for loop to print a triangle like the one below. Allow the user to specify how high the triangle should be.

\*

\*\*

\*\*\*

\*\*\*\*

**Program Code:**

n=int(input("Enter number of rows:"))

for i in range(0,n):

for j in range(0,i+1):

print("\*",end=" ")

print()

**Apparatus:**

* Computer
* Python Software

**Output:**

Enter number of rows:3

\*

\* \*

\* \* \*

Experiment:6

**Que:** Generate a random number between 1 and 10. Ask the user to guess the numberand print a message based on whether they get it right or not.

**Aim:** To write a program to generate a random number between 1 and 10. Ask the user to guess the number and print a message based on whether they get it right or not.

**Program Code:**

import random

a=random.randint(0,9)

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

if a==n:

print("guess is right")

else:

print("guess is wrong")

**Apparatus:**

* Computer
* Python Software

**Output:**

Enter the Numbers:3

guess is wrong

Experiment:7

**Que:** Write a program that asks the user for two numbers and prints Close if the numbersare within .001 of each other and Not close otherwise.

**Aim:** To write a program that asks the user for two numbers and prints Close if the numbers are within .001 of each other and Not close otherwise.

**Program Code:**

a=float(input("Enter first number:"))

b=float(input("Enter second number"))

if a>b:

d=a-b

else:

d=b-a

if d<=0.001:

print("Close")

else:

print("Not close")

**Apparatus:**

* Computer
* Python Software

**Output:**

Enter first number:2

Enter second number4

Not close

Experiment:8

**Que:** Write a program that asks the user to enter a word and prints out whether that wordcontains any vowels.

**Aim:** To write a program that asks the user to enter a word and prints out whether that word contains any vowels.

**Program Code:**

string=input("Enter the string:")

count=0

for i in string:

if i=='a' or i=='e' or i=='i' or i=='o' or i=='u':

count+=1

if count==0:

print("No Vowels found")

else:

print("Total vowels"+str(count))

**Apparatus:**

* Computer
* Python Software

**Output:**

Enter the string: aeiou

Total vowels5

Experiment:9

**Que:** Write a program that asks the user to enter two strings of the same length. Theprogram should then check to see if the strings are of the same length. If they arenot, the program should print an appropriate message and exit. If they are of thesame length, the program should alternate the characters of the two strings. Forexample, if the user enters abcde and ABCDE the program should printout AaBbCcDdEe.

**Aim:** To write a program that asks the user to enter two strings of the same length. The program should then check to see if the strings are of the same length. If they are not, the program should print an appropriate message and exit. If they are of the same length, the program should alternate the characters of the two strings. Forexample, if the user enters abcde and ABCDE the program should print out AaBbCcDdEe.

**Program Code:**

string1=input("Enter string 1:")

string2=input("Enter string 2:")

string3=""

if len(string1)==len(string2):

print("same length")

for i in range(len(string1)):

string3=string3+string2[i]+string1[i]

else:

print("not of same length")

print(string3)

**Apparatus:**

* Computer
* Python Software

**Output:**

Enter string 1:plant

Enter string 2:apple

Same length

applpalnet

Experiment:10

**Que:** Write a program that asks the user for a large integer and inserts commas into itaccording to the standard American convention for commas in large numbers. Forinstance, if the user enters 1000000, the output should be1,000,000.

**Aim:** To write a program that asks the user for a large integer and inserts commas into it according to the standard American convention for commas in large numbers. For instance, if the user enters 1000000, the output should be1,000,000.

**Program Code:**

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

print("americancoversioln output is {:,}".format(n))

**Apparatus:**

* Computer
* Python Software

**Output:**

Enter a number:10000

americancoversioln output is 10,000

Experiment:11

**Que:** In algebraic expressions, the symbol for multiplication is often left out, as in 3x+4yor 3(x+5). Computers prefer those expressions to include the multiplicationsymbol, like 3\*x+4\*y or 3\*(x+5). Write a program that asks the user for analgebraic expression and then inserts multiplication symbols where appropriate.

**Aim:** In algebraic expressions, the symbol for multiplication is often left out, as in 3x+4y or 3(x+5). Computers prefer those expressions to include the multiplication symbol, like 3\*x+4\*y or 3\*(x+5). Write a program that asks the user for an algebraic expression and then inserts multiplication symbols where appropriate.

**Program Code:**

a= input("Enter algebric expression: ")

b = ''

for ch in a:

if ch>='0' and ch<='9':

b = b + ch

elifch=='(':

b = b + '\*' + ch

elifch>='a' and ch<='z' and b[-1]!='(':

b = b + '\*' + ch

else:

b = b + ch

print("Converted expression is :",b)

**Apparatus:**

* Computer
* Python Software

**Output:**

Enter algebric expression:3x

Converted expression is :3\*x

Experiment:12

**Que:** Write a program that generates a list of 20 random numbers between 1 and100.

(a) Print the list.

(b) Print the average of the elements in the list.

(c) Print the largest and smallest values in the list.

(d) Print the second largest and second smallest entries in the list

(e) Print how many even numbers are in the list.

**Aim:**To write a program that generates a list of 20 random numbers between 1 and100.

(a) Print the list.

(b) Print the average of the elements in the list.

(c) Print the largest and smallest values in the list.

(d) Print the second largest and second smallest entries in the list

(e) Print how many even numbers are in the list.

**Program Code:**

import random

l1=[]

for i in range(20):

l2=random.randint(1,100)

l1.append(l2)

print("list is ",l1)

average=sum(l1)/20

print("average is ", average)

sorted(l1)

print("Largest element is",l1[-1],"and smallest element is",l1[0])

print("Second largest element is",l1[-2],"and second smallest element is",l1[1])

c=0

for e in l1:

if e%2==0:

c=c+1

print("Total number of even elements are :",c)

**Apparatus:**

* Computer
* Python Software

**Output:**

list is [76, 7, 6, 72, 84, 77, 16, 82, 99, 27, 41, 39, 98, 48, 42, 13, 100, 22, 95, 65]

average is 55.45

Largest element is 65 and smallest element is 76

Second largest element is 95 and second smallest element is 7

Total number of even elements are : 11

Experiment:13

**Que:** Write a program that asks the user for an integer and creates a list that consists ofthe factors of that integer.

**Aim:** To write a program that asks the user for an integer and creates a list that consists of the factors of that integer.

**Program Code:**

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

l=[]

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

if n % i == 0:

l.append(i)

print(l)

**Apparatus:**

* Computer
* Python Software

**Output:**

Enter a number : 5

[1, 5]

Experiment:14

**Que:** Write a program that generates 100 random integers that are either 0 or 1.Then find the longest run of zeros, the largest number of zeros in a row. Forinstance, the longest run of zeros in [1,0,1,1,0,0,0,0,1,0,0] is4.

**Aim:** To write a program that generates 100 random integers that are either 0 or 1. Then find the longest run of zeros, the largest number of zeros in a row. For instance, the longest run of zeros in [1,0,1,1,0,0,0,0,1,0,0] is 4.

**Program Code:**

import random

List=[]

for i in range(100):

List.append(random.randint(0,1))

nz=0

z=0

print(List)

for i in range(100):

if List[i]==0:

z+=1

else:

if z>nz:

nz=z

z=0

print("Longest run of zeros is",nz)

**Apparatus:**

* Computer
* Python Software

**Output:**

[0, 1, 0, 1, 0, 1, 0, 0, 0, 1, 1, 1, 1, 1, 0, 1, 1, 0, 0, 0, 0, 0, 1, 1, 1, 0, 1, 0, 0, 1, 1, 1, 0, 0, 1, 0, 1, 0, 0, 0, 1, 0, 1, 0, 1, 0, 1, 1, 1, 0, 0, 1, 1, 0, 1, 1, 0, 1, 0, 1, 1, 0, 0, 1, 1, 1, 1, 1, 0, 1, 1, 1, 1, 0, 1, 0, 1, 0, 1, 0, 0, 1, 1, 0, 1, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0]

Longest run of zeros is 11

Experiment:15

**Que:** Write a program that removes any repeated items from a list so that each itemappears at most once. For instance, the list [1,1,2,3,4,3,0,0] wouldbecome[1,2,3,4,0].

**Aim:** To write a program that removes any repeated items from a list so that each item appears at most once. For instance, the list [1,1,2,3,4,3,0,0] would become [1,2,3,4,0].

**Program Code:**

import random

l=[]

for i in range(20):

l.append(random.randint(0,20))

print("list with duplicates is ")

print(l)

s=set(l)

print("duplicates removed list is")

print(s)

**Apparatus:**

* Computer
* Python Software

**Output:**

list with duplicates is

[16, 13, 3, 7, 12, 10, 3, 11, 16, 14, 6, 11, 5, 0, 15, 12, 5, 8, 18, 1]

duplicates removed list is

{0, 1, 3, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 18}

Experiment:16

**Que:** Write a program that asks the user to enter a length in feet. The program shouldthen give the user the option to convert from feet into inches, yards, miles,millimeters, centimeters, meters, or kilometers. Say if the user enters a 1, then theprogram converts to inches, if they enter a 2, then the program converts to yards,etc. While this can be done with if statements, itis much shorter with lists and it isalso easier to add new conversions if you use lists.

**Aim:** Write a program that asks the user to enter a length in feet. The program should then give the user the option to convert from feet into inches, yards, miles, millimeters, centimeters, meters, or kilometers. Say if the user enters a 1, then the program converts to inches, if they enter a 2, then the program converts to yards, etc. While this can be done with if statements, itis much shorter with lists and it is also easier to add new conversions if you use lists

**Program Code:**

n=float (input ("Enter Feet"))

list = []

list.append(n\*12)

list.append(n\*0.133333)

list.append(n\*0.00018939)

list.append(n\*304.8)

list.append(n\*30.48)

list.append(n/3.2808)

list.append(n/3280.8)

print(list)

print("0. Convert feet to Inches ")

print("1. Convent feet to yards")

print("2. Convert Feet to Miles")

print("3. Convert feet to millimeters")

print("4. Convert feet to centimeters")

print("5. Convent feet to meters")

print("6. Convent Feet to kilometers")

op = int (input ("Choose options from Above"))

Print (list [op])

**Apparatus:**

* Computer
* Python Software

**Output:**

Enter Feet10

[120.0, 1.3333300000000001, 0.0018939, 3048.0, 304.8, 3.0480370641306997, 0.0030480370641307]

0. Convert feet to Inches

1. Convent feet to yards

2. Convert Feet to Miles

3. Convert feet to millimeters

4. Convert feet to centimeters

5. Convent feet to meters

6. Convent Feet to kilometers

Choose options from Above

Experiment:17

**Que:**Write a function called sum\_digits that is given an integer num and returns the sumof the digits of num.

**Aim:** Write a function called sum\_digits that is given an integer num and returns the sum of the digits of num.

**Program Code:**

def sum(n):

sum=0

for i in n:

sum+=int(i)

return sum

n = input ("enter value: ")

print ("sum of digits is: ", sum(n))

**Apparatus:**

* Computer
* Python Software

**Output:**

enter value: 30

sum of digits is: 3

Experiment:18

**Que:** Write a function called first\_diff that is given two strings and returns the firstlocation in which the strings differ. If the strings are identical, it should return-1.

**Aim:** To write a function called first\_diff that is given two strings and returns the first location in which the strings differ. If the strings are identical, it should return-1.

**Program Code:**

def first\_diff (str1, str2):

if str1==str 2:

return -1

else:

return str1. find (str2)

str1=input("enter string 1 : “)

str2=input("enter String 2: ")

print (first \_diff (str1, str2))

**Apparatus:**

* Computer
* Python Software

**Output:**

enter string 1 : python

enter String 2: programming

-1

Experiment:19

**Que:** Write a function called number\_of\_factors that takes an integer and returns howmany factors the number has.

**Aim:** Write a function called number\_of\_factors that takes an integer and returns how many factors the number has.

**Program Code:**

def number\_of\_factors (n):

list = [1 for i in range (1, n+1) if n %i ==0)

return len(list)

print ("number has %d factors" ,%number\_of\_fators(20))

**Apparatus:**

* Computer
* Python Software

**Output:**

Number has 6 factors

Experiment :20

**Que:**Write a function called is\_sorted that is given a list and returns True if the list is sorted and False otherwise.

**Aim:**Write a function called is\_sorted that is given a list and returns True if the list is sorted and False otherwise.

**Program Code:**

def is\_sorted 1(list 2):

c=0

list 1=list 2(:)

list 1.sort()

if(list 2!=list 1):

c=1

if(not c):

return true

else

return false

list 2=(121,14,15,82,100)

print(is\_sort 1(list 2))

**Apparatus:**

* Computer
* Python Software

**Output:**

false

Experiment :21

**Que:** Write a function called root that is given a number x and an integer n and returns x1/n. In the function definition, set the default value of n to2.

import math

**Aim:** Write a function called root that is given a number x and an integer n and returns x1/n. In the function definition, set the default value of n to2.

**Program Code:**

#method 1  
import math

def root(x,n):  
    return pow(x,1/n)  
n=2  
x=int(input("enter value"))  
print("method 1 using pow",root (x,n),"method 2,if n value is 2 only using sqrt function",math.sqrt())

**Apparatus:**

* Computer
* Python Software

**Output:**

  enter value

10

method 1 using pow 3.1622776601683795 method 2,if n value is 2 only using sqrt function 3.1622776601683795

Experiment :22

**Que:** Write a function called primes that is given a number n and returns a list of the firstn primes. Let the default value of n be100.

**Aim:** To write a function called primes that is given a number n and returns a list of the first n primes. Let the default value of n be100.

**Program Code:**

def primes(n):  
    list=[]  
for num in range (n+1):  
    if num>1:  
        for i in range(2,num):  
            if(num%i)==0:  
                break  
        else:  
            list.append(num)  
            return list  
            n=int(input("enter n val;ue :"))  
            print("list of n priume numbers are:",primes(n))

**Apparatus:**

* Computer
* Python Software

**Output:**

Enter n value: 15

List of n prime numbers are [2,3,5,7,11,13]

Experiment :23

**Que:** Write a function called merge that takes two already sorted lists of possiblydifferent lengths, and merges them into a single sorted list.

1. Do this using the sort method. (b) Do this without using the sort method.

**Aim:** To write a function called merge that takes two already sorted lists of possibly different lengths, and merges them into a single sorted list.

1. Do this using the sort method. (b) Do this without using the sort method.

**Program Code:**

#without sort method  
def merge(list1,list2):  
    list3=list1+list2  
    print(list3)  
    for i in range(len(list3)):  
        for j in range(i+1,len(list3)):  
            if(list3[j]):  
                temp=list3[j]  
                list3[i]=list3[j]  
                list3[j]=temp  
        print(list3)  
list1=[1,2,3,5,6]  
list2=[3,5,9,10]  
merge(list1,list2)  
#sort method  
def merge(list1,list2):  
    list3=list1+list2  
    list3.sort()  
    print("after merging two list in sorted order",list3)  
list1=[1,2,3,5,6]  
list2=[3,5,9,10]  
merge(list1,list2)

**Apparatus:**

* Computer
* Python Software

**Output:**

[1, 2, 3, 5, 6, 3, 5, 9, 10]

[10, 2, 3, 5, 6, 3, 5, 9, 10]

[10, 10, 3, 5, 6, 3, 5, 9, 10]

[10, 10, 10, 5, 6, 3, 5, 9, 10]

[10, 10, 10, 10, 6, 3, 5, 9, 10]

[10, 10, 10, 10, 10, 3, 5, 9, 10]

[10, 10, 10, 10, 10, 10, 5, 9, 10]

[10, 10, 10, 10, 10, 10, 10, 9, 10]

[10, 10, 10, 10, 10, 10, 10, 10, 10]

[10, 10, 10, 10, 10, 10, 10, 10, 10]

after merging two list in sorted order [1, 2, 3, 3, 5, 5, 6, 9, 10]

Experiment :24

**Que:** Write a program that asks the user for a word and finds all the smaller words that can

be made from the letters of that word. The number of occurrences of a letter in asmaller word can’t exceed the number of occurrences of the letter in the user’s word.

**Aim:** Write a program that asks the user for a word and finds all the smaller words that can

be made from the letters of that word. The number of occurrences of a letter in a smaller word can’t exceed the number of occurrences of the letter in the user’s word.

**Program Code:**

from itertools import permutations  
s=input('enter a word:::')  
for i in range(2,len(s)):  
    for p in permutations(s,i):  
        print(''.join(p),end='')

**Apparatus:**

* Computer
* Python Software

**Output:**

enter a word:::r.sai

> 1000

r.rsrari.r.s.a.isrs.sasiara.asaiiri.isiar.sr.ar.irs.rsarsira.rasrairi.risria.rs.ra.ri.sr.sa.si.ar.as.ai.ir.is.iasr.srasris.rs.as.isarsa.saisirsi.siaar.arsaria.ra.sa.iasras.asiairai.aisir.irsirai.ri.si.aisris.isaiaria.iasr.sar.sir.asr.air.isr.iars.ars.irsa.rsairsi.rsiara.sra.iras.rasirai.raisri.sri.aris.risaria.rias.rsa.rsi.ras.rai.ris.ria.sra.sri.sar.sai.sir.sia.ars.ari.asr.asi.air.ais.irs.ira.isr.isa.iar.iassr.asr.isra.sraisri.srias.ras.ris.ars.ais.irs.iasar.sarisa.rsa.isairsai.sir.sirasi.rsi.asiarsia.ar.sar.iars.arsiari.arisa.rsa.ria.sra.sia.ira.isasr.asrias.ras.iasirasi.air.airsai.rai.saisrais.ir.sir.airs.irsaira.irasi.rsi.rai.sri.sai.ari.asisr.israis.ris.aisarisa.iar.iarsia.ria.siasrias.1000

Experiment :25

**Que:** Write a program that reads a file consisting of email addresses, each on its ownline. Your program should print out a string consisting of those email addressesseparated by semicolons.

**Aim:** Write a program that reads a file consisting of email addresses, each on its own line. Your program should print out a string consisting of those email addresses separated by semicolons.

**Program Code:**

fo=open("sample.txt","r+")  
str=fo.read()  
print("read string is:",str)  
lst=re.findall('\s+@\s+',str)  
print(";"+lst[0]+";")  
fo.close()

**Apparatus:**

* Computer
* Python Software

Experiment:26

Que: Write a program that reads a list of temperatures from a file called temps.txt,converts those temperatures to Fahrenheit, and writes the results to a file calledftemps.txt.

Aim: To rite a program that reads a list of temperatures from a file called temps.txt, converts those temperatures to Fahrenheit, and writes the results to a file called ftemps.txt.

**Program Code:**

f=open("hi.txt")  
f1=open("fhi.txt","w+")  
for i in f:  
    c=float(i)  
    f=(9\*c+(32\*5))/5  
f1.write(str(f)+"/n")  
f1.close()  
f.close()

**Apparatus:**

* Computer
* Python Software

Experiment:27

**Que:** Write a class called Product. The class should have fields called name, amount, andholding the product’s name, the number of items of that product in stock, and theregular price of the product. There should be a method get\_price that receives thenumber of items to be bought and returns a the cost of buying that many items,where the regular price is charged for orders of less than 10 items, a 10% discount isapplied for orders of between 10 and 99 items, and a 20% discount is applied fororders of 100 or more items. There should also be a method called make\_purchasethat receives the number of items to be bought and decreases amount by that much.

**Aim:** Write a class called Product. The class should have fields called name, amount, and holding the product’s name, the number of items of that product in stock, and the regular price of the product. There should be a method get\_price that receives the number of items to be bought and returns a the cost of buying that many items, where the regular price is charged for orders of less than 10 items, a 10% discount is applied for orders of between 10 and 99 items, and a 20% discount is applied for orders of 100 or more items. There should also be a method called make\_purchase that receives the number of items to be bought and decreases amount by that much.

**Program Code:**

class Product:  
    def \_\_init\_\_(self,name,amount,price):  
        self.name=name  
        self.amount=amount  
        self.price=price  
    def get\_price(self,number\_item):  
        if number\_item<10:  
            return self.price\*number\_item  
        elif 10<=number.items<100:  
            return 0.9\*self.price\*number\_items  
        else:  
            return 0.8\*self.price\*number\_items  
name=’phone’  
amount=200  
price=10000  
m=Product(name,amount,price)  
n=int(input("enter num"))  
print("cost is")  
print(m.get\_price(n))  
print("remaining stock")  
print(m.make\_purchese(n))

**Apparatus:**

* Computer
* Python Software

**Output:**

Enter the num:8

Cost is 8000

Experiment:28

**Que:** Write a class called Time whose only field is a time in seconds. It should have amethod called convert\_to\_minutes that returns a string of minutes and secondsformatted as in the following example: if seconds is 230, the method should return'5:50'. It should also have a method called convert\_to\_hours that returns a string ofhours, minutes, and seconds formatted analogously to the previous method.

**Aim:** To write a class called Time whose only field is a time in seconds. It should have a method called convert\_to\_minutes that returns a string of minutes and seconds formatted as in the following example: if seconds is 230, the method should return '5:50'. It should also have a method called convert\_to\_hours that returns a string of hours, minutes, and seconds formatted analogously to the previous method.

**Program Code:**

class Time:  
    def \_\_init\_\_(self,seconds):  
        self.seconds=seconds  
    def convert\_to\_minutes(self):  
        mins=self.seconds//60  
        secs=self.seconds\_(min\*60)  
        print(min)  
        print(secs)  
    def convert\_to\_hours(self):  
        secs=self.seconds  
        hours=secs//3600  
        secs=secs\_(hours\*3600)  
        mins=secs//60  
        secs=secs\_(hours\*60)  
        print(hours)  
        print(min)  
        print(secs)  
time=Time(365)  
print(time.convert\_to\_minute())  
print(time.convert\_to\_hours())

**Apparatus:**

* Computer
* Python Software

**Output:**

6

5

None

0

6

5

None

Experiment:29

**Que:** Write a class called Converter. The user will pass a length and a unit whendeclaring an object from the class for example, c = Converter(9,'inches'). Thepossible units are inches, feet, yards, miles, kilometers, meters, centimeters, andmillimeters. For each of these units there should be a method that returns the lengthconverted into those units. For example, using the Converter object created above,the user could call c. feet() and should get 0.75 as the result.

**Aim:** Write a class called Converter. The user will pass a length and a unit when declaring an object from the class for example, c = Converter(9,'inches'). The possible units are inches, feet, yards, miles, kilometers, meters, centimeters, and millimeters. For each of these units there should be a method that returns the length converted into those units. For example, using the Converter object created above, the user could call c. feet() and should get 0.75 as the result.

**Program Code:**

class Conventer:

    def \_\_init\_\_(self,n,name):

        self.valve=n

        self.name=name

    def feet to inches(self):

        inches=self.valve\*12

        print("feet to inches value in",inches)

    def miles to km(self):

        km=self.value/0.62137

        print("miles to km is"km)

    def feet to yards(self):

        yards=self.value\*0.3333

        print("feet to yards is",yards)

    def feet\_to miles(self):

        miles=self.value\*0.00018939

        print("feet to miles value is",miles)

n=float(input("enter value"))

y=Converter(n,'inches')

y.feet to inches()

y.mile to km()

y.feet to yards()

y.feet to miles()

**Apparatus:**

* Computer
* Python Software

**Output:**

Enter value:10

Feet to inches value is 12

Experiment:30

**Que:** Write a Python class to implement pow(x,n).

**Aim:** Write a Python class to implement pow(x,n).

**Program Code:**

class Power:  
    def \_\_init\_\_(self,base,exponent):  
        self.base=base  
        self.exponent=exponent  
    def cal\_power(self):  
        result=pow(self.base,self.exponent)  
        print(result)  
x=int(input("enter base"))  
y=int(input("enter exponent"))  
z=Power(x,y)  
z.cal\_power()

**Apparatus:**

* Computer
* Python Software

**Output:**

enter base 19

enter exponent 2

Experiment:31

**Que:** Write a Python class to reverse a string word by word.

**Aim:** Write a Python class to reverse a string word by word.

**Program Code:**

string="tejesh is a good boy"  
words=string.split()  
words=list(reversed(words))  
print("".join(words))

**Apparatus:**

* Computer
* Python Software

**Output:**

boygoodaistejesh

Experiment:33

**Que:** Write a program to demonstrate Try/except/else.

**Aim:** Write a program to demonstrate Try/except/else.

**Program Code:**

def divide(x,y):  
    try:  
        result=x//y  
        except zero division error:  
            print("zero division error")  
        else:  
            print("result is"),result  
divide(3,2)              
divide(3,0)

**Apparatus:**

* Computer
* Python Software

**Output:**

Result is 1

Zero division error