**1A hundred years old:**

name=input("Enter your name:")

age=int(input("Enter your Age:"))

sum=(2023-age)+100

print(name,"you will be 100 years old in year:", sum)

**1b even odd:**

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

if num%2==0:

 print("The number is even")

else:

 print("The number is odd")

**1c fibbonacci series**

v=int(input("Enter the number of series:"))

a=0

b=1

for n in range(0,v):

 if n<=1:

 c=n

 else:

 c=a+b

 a=b

 b=c

 print(c)

**1d reverse number**

def revnum(num):

 sum=0

 while num!=0:

 rem=num%10

 sum=rem+sum\*10

 num//=10

 print("reverse number is",sum)

num=int(input("enter number:"))

revnum(num)

**1e Armstrong and palindrome**

def armnum(num):

 sum=0

 temp=num

 while temp>0:

 digit=temp%10

 sum+=digit \*\* 3

 temp//=10

 if num==sum:

 print(num,"is an armstrong number:")

 else:

 print(num,"is not an armstrong number:")

def palnum(num):

 sum=0

 temp=num

 while num!=0:

 rem=num%10

 sum=rem+sum\*10

 num//=10

 if temp==sum:

 print(temp,"is a palindrome number:")

 else:

 print(temp,"is not a palindrome number:")

num=int(input("Enter a num:"))

armnum(num)

palnum(num)

**1f factorial with recursive**

def fact(x):

 if x==1:

 return 1

 else:

 return x\*fact(x-1)

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

print("The factorial of", x , "is", fact(x))

**2a vowel or consonant:**

def vchk(ch):

 if(ch=='a' or ch=='A' or ch=='e' or ch=='E' or ch=='i' or ch=='I' or ch=='o' or ch=='O' or ch=='u' or ch=='U'):

 print(ch,"is vowel")

 else:

 print(ch,"is consonant")

ch=input("Enter a singe character(a-z/A-Z) only:")

vchk(ch)

**2b count length list or string**

def calen(n):

 count=0

 for i in n:

 count=count+1

 return count

print(calen("Student"))

**2c histogram:**

def histogram(items):

 for n in items:

 output=' '

 times=n

 while(times>0):

 output+='\*'

 times=times-1

 print(output)

histogram([4,9,7])

**3a check to sentence it is program**

import string, sys

def ispangram(str1, alphabet=string.ascii\_lowercase):

 alphaset=set(alphabet)

 return alphaset<=set(str1.lower())

print(ispangram("The quick brown fox jumps over a lazy dog"))

**3b print list elemets less than 5**

a=[1,1,2,3,5,8,13,21,34,55,89]

for i in a:

 if i<5:

 print(i)

**4a take 2 list return true if anyone common**

def find\_common(st1,st2):

 res=False

 for x in st1:

 for y in st2:

 if x==y:

 res=True

 return res

print(find\_common([4,6,7],[4,3,13]))

print(find\_common([10,9,8],[5,6,14]))

**4b list after removing specified elem pract 4b**

name=['yashu','vedu','somu','pari','sonu','monu']

name=[x for (i,x) in enumerate(name) if i not in(0,2,4,5)]

print(name)

**4c copy list**

L1=[8,1,2,3,5]

L2=list(L1)

print("L1: ",L1)

print("L2: ",L2)

**5a dictionary ascending and descending**

import operator

d={1:22, 3:13, 4:8, 2:11, 0:27}

print(d)

t=sorted(d.items(), key=operator.itemgetter(0))

print("In ascending order by value:", t)

t=t=sorted(d.items(), key=operator.itemgetter(0), reverse=True)

print("In descending order by value:", t)

**5b concatenate dictionary**

dic1={1:10, 2:20}

dic2={3:30, 4:40}

dic3={5:50, 6:60}

print(dic1)

dic1.update(dic2)

dic1.update(dic3)

print(dic1)

**5c sum of all dic items prac 5c**

d={'t1':10, 't2':20, 't3':30}

print(d)

print("sum:",sum(d.values()))

**6a read entire text file prac 6a**

f=open('abc.txt','r')

t=f.read()

print(t)

f.close()

**6b append text file**

f=open('abc.txt','a+')

f.write('\n Easy to learn')

f=open('abc.txt','r')

t=f.read()

print(t)

f.close()

**6c read last n lines of a file**

f=open('abc.txt','r')

t=f.readlines()

print(t[-1])

f.close

**7a class stores the info of students and display**

class student:

 def \_\_init\_\_(self,name,address,mobile,email):

 self.name=name

 self.address=address

 self.mobile=mobile

 self.email=email

 def display(self):

 print("Name:",name)

 print("Address:",address)

 print("Mobile:",mobile)

 print("Email:",email)

print("Enter your details:")

name=input("Enter your name:")

address=input("Enter your Address:")

mobile=input("Enter your Mobile:")

email=input("Enter your Email:")

s1=student(name,address,mobile,email)

s1.display()

**7b inheritance using python**

class person:

 def \_\_init\_\_(self,name,age):

 self.name=name

 self.age=age

 def getInfo(self):

 return (self.name+" "+str(self.age))

 def isEmployee(person):

 return False

class Employee(person):

 def isEmployee(self):

 return True

emp=person("Piyush",10)

print(emp.getInfo(), emp.isEmployee())

emp=Employee("Pallavi", 20)

print(emp.getInfo(), emp.isEmployee())

**7c MULTIPLIER**

class numbers:

 MULTIPLIER=3.5

 def \_\_init\_\_(self,x,y):

 self.x=x

 self.y=y

 def add(self):

 return self.x + self.y

 @classmethod

 def multiply(cls,a):

 return cls.MULTIPLIER\*a

 @staticmethod

 def subtract(b,c):

 return b-c

 @property

 def value(self):

 return(self.x, self.y)

 #setter

 def set\_value(self,x,y):

 self.x=x

 self.y=y

 #deleter

 def del\_value(self):

 del self.x

 del self.y

obj1=numbers(10,20)

print("add() output=", obj1.add())

print("multiply() output=", numbers.multiply(10))

print("subtract() output=", numbers.subtract(10,5))

print("property output=", obj1.value())

print(obj1.set\_value(100,200))

print("property output=", obj1.value())

print(obj1.del\_value())

print("property output=", obj1.value())

**8a geometry square & circle**

import math

def squre\_area(x):

 return(x\*x)

def circle\_area(y):

 return (math.pi\*r\*r)

import geomatry

def pointyShapeVolume(x,y,squareBase):

 if squareBase==True:

 print("square area=",geometry.square\_area(x))

 else:

 print("circle area=",geometry.circle\_area(x))

print(dir(geometry))

pointyShapeVolume(2,3,True)

pointyShapeVolume(2,4,False)

**8b exception handling**

try:

 number=int(input("Enter a number between 1-10 ="))

 r=100/number

except(ValueError):

 print("Please enter number only:")

except(ZeroDivisionError):

 print("Please enter number greater than 0")

else:

 print("Result:",r)

finally:

 print("You are in finally block:")