```
#package and module
#Module.py
person = {
	"name":"john",
	"age":34,
	"country":"norway"
}
#file1.py
import Module
a = Module.person["name"]
print(a)


#class object and inheritance
class animal:
	def speak(self):
		print("animal is speaking")
class dog(animal):
	def bark(self):
		print("dog is barking")
d = dog()
d.bark()
d.speak()


#button widget
from tkinter import *
jayesh = Tk()
jayesh.geometry("300x500")
def akshay():
	print("your button is clicked")
B = Button(jayesh,text="hello",command=akshay)
B.place(x=50,y=50)

jayesh.mainloop()



#string joining
def ask(list_string):
	string="-".join(list_string)
	return string

str1='vishal patil'
list_string=ask(str1)
print(list_string)

#OR
def ask(list_string):
	string="-".join(list_string)
	return string

str1=["vishal","patil"]
list_string=ask(str1)
print(list_string)
```

```
#arithmatic operators
num1 =int(input("enter the first no:"))
num2 =int(input("enter the second no:"))
add = num1+num2
sub = num1-num2
div = num1/num2
mul = num1*num2
print(add)
print(sub)
print(div)
print(mul)


#Tuple
my_tuple = ()
print(my_tuple)

# Tuple having integers
my_tuple = (1, 2, 3)
print(my_tuple)

# tuple with mixed datatypes
my_tuple = (1, "Hello", 3.4)
print(my_tuple)

# nested tuple
my_tuple = ("mouse", [8, 4, 6], (1, 2, 3))
print(my_tuple)


#novision looping statement
#for loop
for i in range(0,5):
    print(i)
#while loop
count=0
while count<5:
    print(count)
    count=count+1
#nested for loop
for i in range(1, 7):
    for j in range(i):
        print(i, end=' ')
    print()

#function
#simple function
def newl():
    print("hello my name is akshay")
d=newl()

#function with parameters
def newl2(shila):
    return shila*2

jawani=newl2(7)
```

```
print(jawani)

#function with parameters which having default value
def newl2(shila=14):
    return shila*2

jawani=newl2()
print(jawani)


#funiction in a function
def outerFunction(text):

    def innerFunction():
        print(text)
    innerFunction()

outerFunction("hey!")

#simple class and objects
class Animal:
    def dog(self):
        print("dog is barking")
d=Animal()
d.dog()

#list
list1=[1,2,3,4,5,6,8]
print(list1)
type(list1)#min,len,sum,type

#dictionaries
dict={}
dict[0]="hiii"
dict[10]="bye"
tinydict={"name":"akshay","age":23}
print(dict)
print(dict[0])
print(dict[10])
print(tinydict)
print(tinydict["name"])
print(tinydict["age"])


#range function
x = range(3, 20, 2)
for n in x:
    print(n)

#len function
a=len("python")
print(a)

#lambda function
x=lambda x:x*2
a=x(7)
print(a)
```

```
#max function
max(1,2,3,4,5,7,5,10)


#min function
min(1,2,3,4,5,7,5,10)

#sum function
sum([1,2,3,4,5,6])

#config and resize
from tkinter import *
m =Tk()
m.geometry("400x300")
def on_button_click():
	label.config(text="Hello, " + entry.get())
# Create the main window
m.title("GUI Example")
#m.minsize(200,100)
# Create a Label widget
label = Label(m, text="Welcome to Tkinter!")
label.pack(pady=10)
# Create an Entry widget
entry = Entry(m, width=30)
entry.pack(pady=10)
# Create a Button widget
button = Button(m, text="Click Me", command=on_button_click)
button.pack(pady=10)
# Configure options for resizing
m.resizable(True,True)#0,0
  # Set the initial size of the window
# Run the main loop
m.mainloop()

#filter function
def maxi(x):
	return x>4
l1=[2,3,4,5,6,7,8]
newl=list(filter(maxi,l1))
print(newl)

l1=[11,2,23,44,3,45]
print(l1)


#button widget
from tkinter import *
akshay=Tk()
akshay.geometry("300x500")
def file():
	print("hello my name is akshay")
B=Button(akshay,text="submit",command=file)
B.place(x=50,y=50)

akshay.mainloop()
```

```
#entry widget
from tkinter import *
mayur=Tk()
mayur.geometry("500x400")
l1=Label(mayur,text="this is new program")
l1.pack(side=LEFT)
e1=Entry(mayur,bd=3)
e1.pack(side=LEFT)
mayur.mainloop()


#frame widget
from tkinter import *
mayur=Tk()
mayur.geometry("500x400")
frame=Frame(mayur)
frame.pack(side=BOTTOM)
Blue=Button(frame,text="hello",fg="white",bg="blue")
Blue.pack(side=LEFT)
Green=Button(frame,text="hello",fg="white",bg="green")
Green.pack(side=LEFT)
Red=Button(frame,text="hello",fg="white",bg="red")
Red.pack(side=LEFT)
yellow=Button(frame,text="hello",fg="white",bg="yellow")
yellow.pack(side=LEFT)
mayur.mainloop()


#checkbutton widget
from tkinter import *
drive=Tk()
drive.geometry("400x300")
checkvar1=IntVar()
checkvar2=IntVar()
ch1=Checkbutton(drive,text="pizza",variable=checkvar1,height=5,width=5)
ch2=Checkbutton(drive,text="fries",variable=checkvar2,height=5,width=5)
ch1.pack()
ch2.pack()
drive.mainloop()


#canvas widget
from tkinter import *
flight=Tk()
flight.geometry("400x300")
C=Canvas(flight,bg="cyan",height=100,width=100)
coord=10,50,90,70
arc=C.create_arc(coord,start=0,extent=97,fill="black")
line=C.create_line(10,10,50,70,fill="white")
C.pack()
flight.mainloop()

#list widget
from tkinter import *
listy=Tk()
```

```
#listy.geometry("400x500")
lb1=Listbox(listy)
lb1.insert(1,"hindi")
lb1.insert(2,"english")
lb1.insert(3,"marathi")
lb1.insert(4,"germany")
lb1.pack()
listy.mainloop()


#armstrong number
num=int(input("enter the number:"))
temp=num
sum=0
while temp>1:
	digit=temp%10
	sum+=digit**3
	temp//=10
if num==sum:
	print("armstrong")
else:
	print("not")
```