SOURCE CODE

print("Please choice the way you want to search the details of element:")      # Menu

print("(1) By name ")

print("(2) By atomic number")

choice=int(input("Enter your choice as 1,2 only:"))

# Function definition

def file\_open\_split(file\_name):

     file\_object=open(file\_name,"r")

     variable1=file\_object.read()

     variable2=variable1.split("/")

     file\_object.close()

     return variable2

def change1(list):

    return [[el]for el in list ]

def change2(list):

    res=[]

    for el in list:

        for mm in el:

            sub=mm.split("\t")

            res.append(sub)

    return res

# Function Call

variable1=file\_open\_split("periodic\_table\_details.txt")

variable2=change1(variable1)

variable3=change2(variable2)

if choice==1:

    elementname=str(input("Enter the name of element: "))

    variable4 =elementname.capitalize()

    for i in range(1,len(variable3)+1):

         if i<=len(variable3)-1 and variable3[i][3]==variable4 :

                 print("Details of the Element is ==>")

                 print("Atomic Number :",i)

                 print("Atomic Weight :" , variable3[i][2] )

                 print("Name :" , variable3[i][3])

                 print("Symbol :",variable3[i][4])

                 print("Melting Point (In Celsius) :", variable3[i][5] )

                 print("Boiling Point (In Celsius) :",variable3[i][6])

                 print("Density (g/cm ^3) :",variable3[i][7])

                 print("Percentage Present in Earth :",variable3[i][8] )

                 print("Group :",variable3[i][9])

                 print("Electronic Configuration :",variable3[i][10])

                 break

         elif i<=len(variable3)-1 and variable3[i][3]!=variable4 :

             continue

         else:

             i==len(variable3)

             print("Invalid name of element . ")

             break

if choice==2:

     elementno=int(input("Enter the atomic number (not greater than 109): "))

     if elementno>109:

         print("Element with Atomic number ",elementno,"is not yet discovered properly that is its properties are not known clearly.")

     else:

        print("Details of the Element is ==>")

        print("Atomic Number :",elementno)

        print("Atomic Weight :" , variable3[elementno][2] )

        print("Name :" , variable3[elementno][3])

        print("Symbol :",variable3[elementno][4])

        print("Melting Point (In Celsius) :", variable3[elementno][5] )

        print("Boiling Point (In Celsius) :",variable3[elementno][6])

        print("Density (g/cm ^3) :",variable3[elementno][7])

        print("Percentage Present in Earth :",variable3[elementno][8] )

        print("Group :",variable3[elementno][9])

        print("Electronic Configuration :",variable3[elementno][10])

# End of Code