#the list of atoms

atom=["Hydrogen","Helium","lithium","beryllium","boron","carbon","nitrogen","oxygen","fluorine","neon","sodium","magnesium","aluminum","silicon","phosphorus","sulfur","chlorine","argon","potassium","calcium","scandium","titanium","vanadium","chromium","manganese","iron","cobalt","nickel","copper","zinc","gallium","germanium","arsenic","selenium","bromine","krypton","rubidium","strontium","yttrium","zirconium","niobium","molybdenum","technetium","ruthenium","rhodium","palladium","silver","cadmium","indium","tin","antimony","tellurium","iodine","xenon","cesium","barium","lanthanum","cerium","praseodymium","neodymium","promethium","samarium","europium","gadolinium","terbium","dysprosium","holmium","erbium","thulium","ytterbium","lutetium","hafnium","tantalum","tungsten","rhenium","osmium","tridium","platinum","gold","mercury","thallium","lead","bismuth","polonium","astatine","radon","francium","radium"]

#main program

choice=""

while choice !="x":

print("\*+\*+\*+\*+\*+\*+\*+\*+\*+\*+\*+\*+\*+\*+\*+\*+\*+\*+\*+\*+\*+\*+\*+\*+\*+\*+\*+\*+\*+\*+\*")

print(" A T O M F I N D E R ")

print("\*+\*+\*+\*+\*+\*+\*+\*+\*+\*+\*+\*+\*+\*\*+\*+\*+\*+\*+\*+\*+\*+\*\*+\*+\*+\*+\*+\*+\*+\*+\*")

print("\n")

print("A:Append an atom to the list")

print("B:Remove an atom from the list")

print("c: Sort the list")

print("D: print the list")

print("E: print the length of the list")

print("F: Find an atom in the list")

print("X: Exit the program")

print("\n")

choice=input("choose an option ")

if choice=="A":

name=input("enter the name of an atom to add")

atom.append(name)

print(name,"has been added to the list")

if choice=="B":

name=input("enter the name of an atom to remove from the list")

atom.remove(name)

print(name,"has been removed from the list")

if choice=="C":

atom.sort()

print(atom)

if choice=="D":

print(atom)

if choice=="E":

print(len(atom))

if choice=="F":

print(atom)

i=int(input("which atom do you want to change?"))

atoms[i]=input("enter a new atom")

print(atom)