#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)