#the list of atoms

atoms=['Hydrogen', 'Helium', 'Lithium', 'Beryllium', 'Boron', 'Carbon', 'Nitrogen', 'Oxygen', 'Fluorine', 'Neon', 'Sodium', 'Magnesium', 'Aluminium', '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', 'Iridium', '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:Print the list")

 print ("D:sort the list")

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

 print("F:edit an atom")

 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:")

 atoms.append(name)

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

 if choice=="B":

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

 atoms.remove(name)

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

 if choice=="C":

 print (atoms)

 if choice=="D":

 atoms.sort()

 print (atoms)

 if choice=="E":

 print(len(atoms))

 if choice=="F":

 print (atoms)

 i=int(input("which atom do u wanna change?"))

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

 print (atoms)