#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","Rehenium","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 atoms in the list")

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

print("F:edit an element")

print("X:exit the program")

print("\n")

choice=input("Choose an option:")

if choice == "A":

name=input("enter a 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 == "F":

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

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

print(atoms)

if choice == "E":

print(len(atoms))