#list of atoms

atoms=["Hydrogen","Helium","Lithium","Beryllium","Boron","Carbon","Nitrogen","Oxygen","Fluorine","Neon",

"Sodium","Magnesium","Aluminum","Silicon","Phosphorus","Sulfur","Chlorine","Argon","Potassium","Calcium",

"Scandium","Titanium","Vanadium","Chromium","Chromium","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"]

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("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 to 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 you want to change?"))

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

 print(atoms)