#the 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","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","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 you would like to add")

 atoms.append(name)

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

 if choice == "B":

 name=input("enter the name of an atom you want 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 you want to change"))

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

 print(atoms)