#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"]

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 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 u want to change?"))

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

       print(atoms)