#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","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 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")
        atoms.append(name)
        print(name,"has been added to the list")

    if choice=="B":
        name=input("enter the name has been removed")
        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)