#the list of items

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](https://byjus.com/chemistry/krypton/)", "[Rubidium](https://byjus.com/chemistry/rubidium/)", "[Strontium](https://byjus.com/chemistry/strontium/)", "[Yttrium](https://byjus.com/chemistry/yttrium/)", "[Zirconium](https://byjus.com/chemistry/zirconium/)", "[Niobium](https://byjus.com/chemistry/niobium/)", "[Molybdenum](https://byjus.com/chemistry/molybdenum/)", "[Technetium](https://byjus.com/chemistry/technetium/)", "[Ruthenium](https://byjus.com/chemistry/ruthenium/)", "[Rhodium](https://byjus.com/chemistry/rhodium/)", "[Palladium](https://byjus.com/chemistry/palladium/)", "[Silver](https://byjus.com/chemistry/silver/)", "[Cadmium](https://byjus.com/chemistry/cadmium/)", "[Indium](https://byjus.com/chemistry/indium/)", "[Tin](https://byjus.com/chemistry/tin/)", "[Antimony](https://byjus.com/chemistry/antimony/)" , "[Tellurium](https://byjus.com/chemistry/tellurium/)" , "[Iodine](https://byjus.com/chemistry/iodine/)", "[Xenon](https://byjus.com/chemistry/xenon/)" , "[Cesium](https://byjus.com/chemistry/cesium/)", "[Barium](https://byjus.com/chemistry/barium/)", "[Lanthanum](https://byjus.com/chemistry/lanthanum/)" , "[Cerium](https://byjus.com/chemistry/cerium/)", "[Praseodymium](https://byjus.com/chemistry/praseodymium/)" , "[Neodymium](https://byjus.com/chemistry/neodymium/)" , "[Promethium](https://byjus.com/chemistry/promethium/)" , "[Samarium](https://byjus.com/chemistry/samarium/)" , "[Europium](https://byjus.com/chemistry/europium/)" , "Gadolinium" , "Terbium" , "[Dysprosium](https://byjus.com/chemistry/dysprosium/)", "[Holmium](https://byjus.com/chemistry/holmium/)" , "[Erbium](https://byjus.com/chemistry/erbium/)" , "[Thulium](https://byjus.com/chemistry/thulium/)" , "[Ytterbium](https://byjus.com/chemistry/ytterbium/)" , "[Lutetium](https://byjus.com/chemistry/lutetium/)" , "[Hafnium](https://byjus.com/chemistry/hafnium/)", "[Tantalum](https://byjus.com/chemistry/tantalum/)" , "[Tungsten](https://byjus.com/chemistry/tungsten/)" , "[Rhenium](https://byjus.com/chemistry/rhenium/)" , "[Osmium](https://byjus.com/chemistry/osmium/)", "[Iridium](https://byjus.com/chemistry/iridium/)", "[Platinum](https://byjus.com/chemistry/platinum/)" , "[Gold](https://byjus.com/chemistry/gold/)", "[Mercury](https://byjus.com/chemistry/mercury/)" , "[Thallium](https://byjus.com/chemistry/thallium/)" , "[Lead](https://byjus.com/chemistry/lead/)" , "[Bismuth](https://byjus.com/chemistry/bismuth/)", "[Polonium](https://byjus.com/chemistry/polonium/)", "[Astatine](https://byjus.com/chemistry/astatine/)", "[Radon](https://byjus.com/chemistry/radon/)" , "[Francium](https://byjus.com/chemistry/francium/)", "Radium"]

#Main program

choice=""

while choice !="X":

    print("==============================")

    print("A T O M   F I N D E R")

    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 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 from the list")

            if choice=="C":

                print(atoms)

                if choice=="D":

                    atoms.sort()

                    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)