#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", "Rhojdium", "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"]

#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 atoms in 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 from the list")

if choice == "C":

print(atoms)

if choice == "D":

atoms.sort()

print(atoms)

if choice == "E":

print(len(atoms))

if choice=="F":

i=int(input("which atom do you want to change?"))

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

print(atoms)