#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)