# 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"]

#main program

choice=""

while choice !="X":

print("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*")

print("Atom Finder")

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 from the list")

if choice =="B":

name=input("enter the nane 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":

print (atoms)

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

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

print (atoms)

Run:

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Atom Finder

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

A: Append an atom to the list

B: Remove an atom from the list

C: print the list

D: Sort the list

E: the length of the list

F: edit an atom

X: Exit the program

Choose an option:A

enter the name of an atom to add:K

K has been added from the list

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Atom Finder

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

A: Append an atom to the list

B: Remove an atom from the list

C: print the list

D: Sort the list

E: the length of the list

F: edit an atom

X: Exit the program

Choose an option:c

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Atom Finder

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

A: Append an atom to the list

B: Remove an atom from the list

C: print the list

D: Sort the list

E: the length of the list

F: edit an atom

X: Exit the program

Choose an option:C

['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', 'K']

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Atom Finder

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A: Append an atom to the list

B: Remove an atom from the list

C: print the list

D: Sort the list

E: the length of the list

F: edit an atom

X: Exit the program

Choose an option:d

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Atom Finder

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A: Append an atom to the list

B: Remove an atom from the list

C: print the list

D: Sort the list

E: the length of the list

F: edit an atom

X: Exit the program

Choose an option:e

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Atom Finder

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A: Append an atom to the list

B: Remove an atom from the list

C: print the list

D: Sort the list

E: the length of the list

F: edit an atom

X: Exit the program

Choose an option:f

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Atom Finder

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A: Append an atom to the list

B: Remove an atom from the list

C: print the list

D: Sort the list

E: the length of the list

F: edit an atom

X: Exit the program

Choose an option:b

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Atom Finder

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

A: Append an atom to the list

B: Remove an atom from the list

C: print the list

D: Sort the list

E: the length of the list

F: edit an atom

X: Exit the program