**#the list of items**

**atoms=["Hydrogen","Hellium","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("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 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":**

 **print(atoms)**

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

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

 **print(atoms)**