**#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)**