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Good afternoon, everyone. Today I'm going to show you how to collect the REST API of the periodic table. There are total of 7 methods by which you can fetch the data:

1.  Fetch all the 118 elements from periodic table

    https://neelpatel05.pythonanywhere.com

2.  Fetch the element by atomic number

    Ex: https://neelpatel05.pythonanywhere.com/element/atomicnumber?atomicnumber=20

    This will fetch the element "Calcium" which has the atomic 20.

3.  Fetch the element by atomic name

    Ex: https://neelpatel05.pythonanywhere.com/element/atomicname?atomicname=Mercury

    This will fetch the element "Mercury".

4.  Fetch the element by atomic symbol

    Ex: https://neelpatel05.pythonanywhere.com/element/symbol?symbol=H

    This will fetch the element "Hydrogen" which has the atomic symbol "H".

5.  Fetch elements by bonding type

    Ex: https://neelpatel05.pythonanywhere.com/element/bondingtype?bondingtype=metallic

    This will fetch all elements from periodic table having Metallic bonding.

6.  Fetch elements by Group Block

    Ex: https://neelpatel05.pythonanywhere.com/element/groupblock?groupblock=metal

    This will fetch all elements from periodic table belongs to metal group.

7.  Fetch elements by state in STP (Standard Temperature and Pressure)

    Ex: https://neelpatel05.pythonanywhere.com/element/state?state=gas

    This  will fetch all elements from periodic table belongs to gas state.

For example, if we want the data of an element with atomic number equal to 8, we simply type the URL

https://neelpatel05.pythonanywhere.com/element/atomicnumber?atomicnumber=8 to web browser

{"atomicMass":"15.9994(3)","atomicNumber":8,"atomicRadius":73,"boilingPoint":90,"bondingType":"diatomic","cpkHexColor":"FF0D0D","density":0.001429, "electronAffinity":-141,"electronegativity":3.44,"electronicConfiguration":"[He] 2s2 2p4","groupBlock":"nonmetal","ionRadius":"140 (-2)","ionizationEnergy":1314,"meltingPoint":55,"name":"Oxygen","oxidationStates":"-2, -1, 1, 2","standardState":"gas","symbol":"O","vanDerWaalsRadius":152,"yearDiscovered":1774}
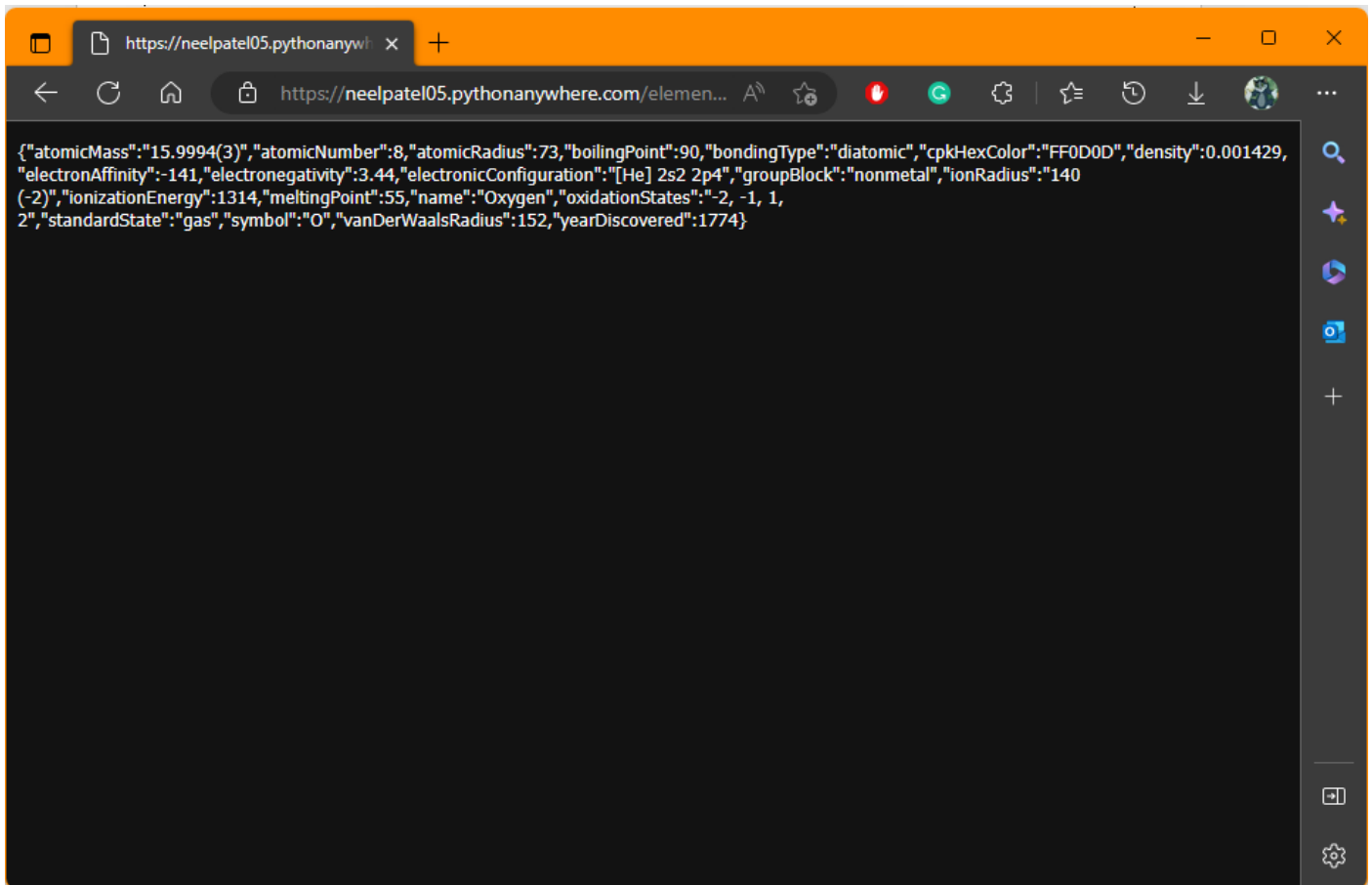
Fig. 1 Data shown in web browser

Or type curl https://neelpatel05.pythonanywhere.com/element/atomicnumber?atomicnumber=8 in the command prompt
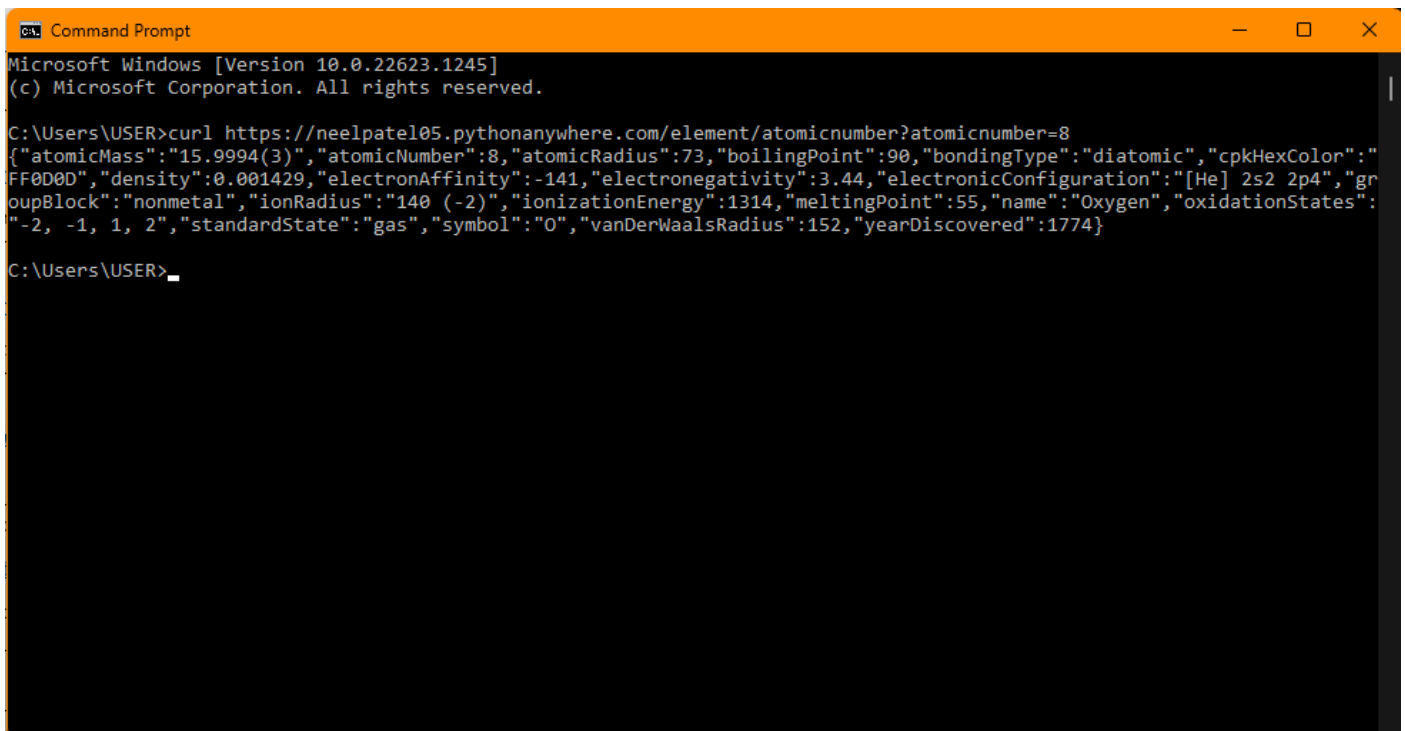


Fig. 2 Data shown in command prompt

From Figure 1 and Figure 2, you can see that the information shown is the properties for an element with atomic number 8 in JSON, which includes element name, atomic symbol, atomic mass, atomic number, atomic radius, boiling point, bonding type, density, electron affinity, electronegativity, electron configuration, group block, ion radius, ionization energy, melting point, oxidation states, standard state, Van der Waals radius ,and year discovered.

See the additional info at https://github.com/neelpatel05/periodic-table-api