

## What does enumerate do in Python?

The enumerate function in Python converts a data collection object into an enumerate object. Enumerate returns an object that contains a counter as a key for each value within an object, making items within the collection easier to access.

Looping through objects is useful but we often need the means to track loops, and the items accessed within that iteration of the loop. Enumerate helps with this need by assigning a counter to each item in the object, allowing us to track the accessed items.

[ref:1] <https://blog.hubspot.com/website/python-enumerate>

## What is JSON?



### JSON

JSON stands for **J**avaScript **O**bject **N**otation

JSON is a lightweight format for storing and transporting data

JSON is often used when data is sent from a server to a web page

JSON is "self-describing" and easy to understand [2]

[ref:2] [https://www.w3schools.com/whatis/whatis\\_json.asp](https://www.w3schools.com/whatis/whatis_json.asp)

## Working With JSON Data in Python

One of the reasons JSON might be used is to collect data from the Rhino model to be used in other places. Use JSON to store information for a door schedule, or a parts list. A report can be created on the name, size and location of all the bitmaps in a model. A JSON file can have the

endpoints of all the lines in a model representing column or beam connection points. JSON files are used in several other places and products. JSON is also easy to display on dynamic webpages

The text in JSON is done through quoted-string which contains the value in key-value mapping within { }. It is similar to the dictionary in Python. JSON shows an API similar to users of Standard Library marshal and pickle modules and Python natively supports JSON features. For Example

```
# Python program showing
# use of json package

import json

# {key:value mapping}
a = {"name": "John",
     "age": 31,
     "Salary": 25000}

# conversion to JSON done by dumps() function
b = json.dumps(a)

# printing the output
print(b)
```

### **Output:**

```
{"age": 31, "Salary": 25000, "name": "John"}[3]
```

[ref:3] <https://www.geeksforgeeks.org/working-with-json-data-in-python/>