

Ques. What is Python JSON?

- JSON **JavaScript Object Notation** is a format for structuring data. It is mainly used for storing and transferring data between the browser and the server.
- Python has a built-in package called `json`, which can be used to work with JSON data.
- **Convert JSON to Python:-** If you have a JSON string, you can parse it by using the `json.loads()` method.

```
import json
# some JSON:
x = '{ "name":"John", "age":30, "city":"New York"}'
y = json.loads(x)
# the result is a Python dictionary:
print(y["age"])
```

Output:- 30

- **Convert Python to JSON:-** If you have a Python object, you can convert it into a JSON string by using the `json.dumps()` method.

```
import json

# a Python object (dict):
x = {
    "name": "John",
    "age": 30,
    "city": "New York"
}

# convert into JSON:
y = json.dumps(x)

# the result is a JSON string:
print(y)

Output:- {"name": "John", "age": 30, "city": "New York"}
```

- **Format the Result:-** Use the **indent** parameter to define the numbers of indents:

```
import json

x = {
    "name": "John",
    "age": 30,
    "married": True,
```

```

    "divorced": False,
    "children": ("Ann", "Billy"),
    "pets": None,
    "cars": [
        {"model": "BMW 230", "mpg": 27.5},
        {"model": "Ford Edge", "mpg": 24.1}
    ]
}

# use four indents to make it easier to read the result:
print(json.dumps(x, indent=4))

```

Output:-

```

{
    "name": "John",
    "age": 30,
    "married": true,
    "divorced": false,
    "children": [
        "Ann",
        "Billy"
    ],
    "pets": null,
    "cars": [
        {
            "model": "BMW 230",
            "mpg": 27.5
        },
        {
            "model": "Ford Edge",
            "mpg": 24.1
        }
    ]
}

```

- Use the **sort_keys** parameter to specify if the result should be sorted or not:

```
print(json.dumps(x, indent=4, sort_keys=True))
```

Output:-

```

{
    "age": 30,
    "cars": [
        {
            "model": "BMW 230",
            "mpg": 27.5
        },
        {
            "model": "Ford Edge",
            "mpg": 24.1
        }
    ],
}

```

```
    "children": [  
        "Ann",  
        "Billy"  
    ],  
    "divorced": false,  
    "married": true,  
    "name": "John",  
    "pets": null  
}
```