Read and Write JSON String and Files - Part 1

February 25, 2023

0.0.1 Import JSON Module

```python
[1]: import json
```

```python
[2]: string_data = """
{
        "id": "0001",
        "type": "donut",
        "name": "Cake",
        "ppu": 0.55,
        "batters":
                {
                        "batter":
                                [
                                        { "id": "1001", "type": "Regular" },
                                        { "id": "1002", "type": "Chocolate" },
                                        { "id": "1003", "type": "Blueberry" },
                                        { "id": "1004", "type": "Devil's Food" }
                                ]
                },
        "topping":
                [
                        { "id": "5001", "type": "None" },
                        { "id": "5002", "type": "Glazed" },
                        { "id": "5005", "type": "Sugar" },
                        { "id": "5007", "type": "Powdered Sugar" },
                        { "id": "5006", "type": "Chocolate with Sprinkles" },
                        { "id": "5003", "type": "Chocolate" },
                        { "id": "5004", "type": "Maple" }
                ],
    "status": false
}
"""
```

0.0.2 Read a Json Data (Deserialization- Convert string into Object)

```
[3]: json.loads(string_data)
```

```
[3]: {'id': '0001',
 'type': 'donut',
 'name': 'Cake',
 'ppu': 0.55,
 'batters': {'batter': [{'id': '1001', 'type': 'Regular'},
   {'id': '1002', 'type': 'Chocolate'},
   {'id': '1003', 'type': 'Blueberry'},
   {'id': '1004', 'type': "Devil's Food"}]},
 'topping': [{'id': '5001', 'type': 'None'},
  {'id': '5002', 'type': 'Glazed'},
  {'id': '5005', 'type': 'Sugar'},
  {'id': '5007', 'type': 'Powdered Sugar'},
  {'id': '5006', 'type': 'Chocolate with Sprinkles'},
  {'id': '5003', 'type': 'Chocolate'},
  {'id': '5004', 'type': 'Maple'}],
 'status': False}
```

```
[4]: dict_data = {'id': '0001',
 'type': 'donut',
 'name': 'Cake',
 'ppu': 0.55,
 'batters': {'batter': [{'id': '1001', 'type': 'Regular'},
   {'id': '1002', 'type': 'Chocolate'},
   {'id': '1003', 'type': 'Blueberry'},
   {'id': '1004', 'type': "Devil's Food"}]},
 'topping': [{'id': '5001', 'type': 'None'},
  {'id': '5002', 'type': 'Glazed'},
  {'id': '5005', 'type': 'Sugar'},
  {'id': '5007', 'type': 'Powdered Sugar'},
  {'id': '5006', 'type': 'Chocolate with Sprinkles'},
  {'id': '5003', 'type': 'Chocolate'},
  {'id': '5004', 'type': 'Maple'}],
 'status': False,
 str: True,
 'pound': '£',
 'check': float('inf')
}
```

0.0.3 Write a Json Data (Serialization- Convert Object into String)

```
[5]: print(json.dumps(dict_data, indent=True, skipkeys=True, ensure_ascii=False,
     ↪allow_nan=True))

    {
```

```
"id": "0001",
"type": "donut",
"name": "Cake",
"ppu": 0.55,
"batters": {
 "batter": [
  {
   "id": "1001",
   "type": "Regular"
  },
  {
   "id": "1002",
   "type": "Chocolate"
  },
  {
   "id": "1003",
   "type": "Blueberry"
  },
  {
   "id": "1004",
   "type": "Devil's Food"
  }
 ]
},
"topping": [
 {
  "id": "5001",
  "type": "None"
 },
 {
  "id": "5002",
  "type": "Glazed"
 },
 {
  "id": "5005",
  "type": "Sugar"
 },
 {
  "id": "5007",
  "type": "Powdered Sugar"
 },
 {
  "id": "5006",
  "type": "Chocolate with Sprinkles"
 },
 {
  "id": "5003",
  "type": "Chocolate"
```

```
   },
   {
     "id": "5004",
     "type": "Maple"
   }
 ],
 "status": false,
 "pound": "£",
 "check": Infinity
}
```

0.0.4 Create JSON File (Serialization- Convert Object into String)

```
[6]: with open('dict_data.json', mode='w') as fp:
         json.dump(dict_data, fp, indent=True, skipkeys=True, ensure_ascii=False,␣
     ↪allow_nan=True)
```

0.0.5 Read JSON File (Deserialization- Convert string into Object)

```
[7]: with open('dict_data.json') as fp:
         json_file=json.load(fp)

     print(json_file)
```

```
{'id': '0001', 'type': 'donut', 'name': 'Cake', 'ppu': 0.55, 'batters':
{'batter': [{'id': '1001', 'type': 'Regular'}, {'id': '1002', 'type':
'Chocolate'}, {'id': '1003', 'type': 'Blueberry'}, {'id': '1004', 'type':
"Devil's Food"}]}, 'topping': [{'id': '5001', 'type': 'None'}, {'id': '5002',
'type': 'Glazed'}, {'id': '5005', 'type': 'Sugar'}, {'id': '5007', 'type':
'Powdered Sugar'}, {'id': '5006', 'type': 'Chocolate with Sprinkles'}, {'id':
'5003', 'type': 'Chocolate'}, {'id': '5004', 'type': 'Maple'}], 'status': False,
'pound': '£', 'check': inf}
```

```
[ ]:
```

```
[ ]:
```