YAML

YAML = File format | Data serialization language (a common language across different applications) | Highly human-readable

```
simple-property: a simple value

object-property:
    first-property: first value
    second-property: second value

array-property:
    - item-1-property-1: one
      item-1-property-2: 2
    - item-2-property-1: three
      item-2-property-2: 4
```

Linter

You can look for `docs-yaml` in your Extensions tab on VSCode to install a linter to tell you whether your YAML file is well indented or not. Or you can also visit this link

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Read YAML Files

> Observe that the base of YAML files lies in the indentation and the linespaces.

> The most basic syntax in a YAML file is the **key:value** pair

> Python doesn't have a library for reading YAML files. Install `PyYAML` and use a context manager

> 'Person' is a list with dictionaries

> 'Animal' is just a regular list

> Notice that strings can be either into double quotes, single quotes or nothing, and they will work the same.

> Another useful way of using YAML files is leveraging **objects** simply by indenting the key:value pairs

```
!pip install PyYAML

import yaml

with open('taml_example.yaml') as f:
  data = yaml.load(f)

print(data)

with open('taml_example.yaml', 'r') as stream:
  data_loaded = yaml.safe_load(steam)

print(type(data_loaded))
print(data_loaded)
print(data_loaded.keys())

print(f"The first element of Person is: {data_loaded['Person'][0]}
print(f"The name of the first element of Person is: {data_loaded['
print(f"The second element of Person is: {data_loaded['Person'][1]
print(f"The name of the second element of Person is: {data_loaded[
print(f'The value corresponding to Animals is: {data_loaded["Anima
```

```
Animals: [Cat, Dog, Shoebill, Kakapo]
```

```
print(f"The first element of Person is: {data_loaded['Person'][0]}
print(f"The name of the first element of Person is: {data_loaded['
print(f"The second element of Person is: {data_loaded['Person'][1]
print(f"The name of the second element of Person is: {data_loaded[
print(f'The value corresponding to Animals is: {data_loaded["Anima
```

> One more thing you can use in YAML files are lists. List can contain single values, or it can also contain key:value pair values

> Notice that we have two main keys, 'Person', and 'Animal'. The value corresponding to 'Person' is a list with dictionaries, and the value corresponding to 'Animal' is just a regular list

> So we can get the values of it by indexing the correct key and/or index

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Create YAML Files

> You can also create YAML using the same library. The variable you need to use to create a YAML file is a dictionary. So, let's define a simple dictionary out of a JSON file we have, and then create a YAML from there

```
import json

with open('JSON_sample.json', mode='r') as f:
    my_dict = json.load(f)

print(my_dict)

with open('YAML_from_JSON.yaml', 'w') as f:
        yaml.dump(my_dict, f)
```

> Now, we can use the `dump` method to save the dictionary as a yaml file. The `dump` method accepts the data we want to use, and then the file in which we want to dump our data