CCGC 5001 - Virtualization

Module 7A: YAML

HUMBER

What is YAML?

-YAML Ain't Markup Language

YAML is a data serialization language

Human-readable code

Minimalist syntax

Solely designed for data

Allows comments

Strings without quotation marks

Considered the "cleaner" JSON

Features of YAML

Multi-document support

- Multiple document YAML documents in single YAML file for file organization or data parsing

- Separation between each document is marked by three dashes (---)

```
---
Document: document 1
Marketing: strategies
---
Document: document 2
Sales: clients list
---
```

Features of YAML

Built-in comments

- Allows you to add comments to files using hash symbol (#)

```
# Here is a single-line comment
 - value line 5
 # Here is a
 # multi-line comment
- value line 13
```

Features of YAML

Readable syntax

- Uses an indentation system similar to Python to show structure of your program
- Best practice is to use spaces to create indentation rather than tabs

```
Learn Docker:
    author: Gabriel N. Schenker
    language: English
    publication-year: 2020
    pages: 574
```

YAML Syntax

Key-value pairs

- Most things in YAML file are a form of key-value form pair

```
<key>: <value>

# for example

author: Gabriel N. Schenker
```

YAML Syntax

Scalars and mapping

- Scalars represent a single stored value
- Scalars are assigned to key names using mapping

```
integer: 25

float: 25.0

boolean: Yes

string: "25"
```

YAML Syntax

Strings

- Strings are a collection of characters that represent a sentence or phrase

- Use | to print each string as a new line or > to print as a paragraph

```
str: Hello World
data: |
  These
  Newlines
  Are broken up
data: >
  This text is
  wrapped and is a
  single paragraph
```

YAML Syntax

List or Array

- Hold multiple values under the same key

```
# Shopping List Sequence in block style
shopping:
- milk
- eggs
- juice
```

```
# Shopping List Sequence in Flow Style
shopping: [milk, eggs, juice]
```

YAML Syntax

Dictionaries

- Collections of key-value pairs all nested under the same subgroup

- Dictionaries are defined similar to mappings where you enter the dictionary name, a colon, and a space followed by 1 or more indented key-value pairs

- Dictionaries can contain array or lists

```
# An employee record
Employees:
- John:
   name: John
   job: Developer
- Smith:
   name: Smith
   job: Project Manager
```

YAML Tutorial

https://www.youtube.com/watch?v=1uFVr15xDGg&t=4s

Thank you