

SIT226 Cloud Automation Technologies

Pass Task 3.1P

Working with YAML

Background

It is common to work with JSON or YAML in modern computing. This week we begin work with Kubernetes using the command line, however, we will soon be editing configurations in YAML. This task ensures you are familiar with YAML by writing a simple object representing yourself as a student.

Get Prepared

Review the information provided about YAML in the class content and unit site, and also review the formal specification of the YAML notation (<https://yaml.org/spec/1.2.2/>). There are also many tutorials, references, and examples available on the web that you may wish to review to learn these notations.

Complete the Task

Page Limit: no limit (approx. 1-2 pages expected), e.g., 2cm margins, 11 or 12 point font, appropriate headings/spacing, etc.

Prepare a document according to the following requirements:

1. Reflect on the content for this week. In $\frac{1}{2}$ - $\frac{3}{4}$ page, identify the most important lessons/topics this week relevant to your future studies/career and explain why they are the most important. Note: Do not present/explain topics, you are explaining why the things you learned are important!
2. Provide one or more screenshots for each activity, demonstrating that you have completed the lab session this week and briefly explain what is shown in each screenshot (one or two short sentences each).
3. Using YAML, write your student record for this trimester (no page limit) containing:
 - Your name: family name, given name, preferred name (omit any that aren't relevant).
 - Units that you are enrolled in, including unit code, name of the unit, and mode of offer (Burwood, Geelong, or Online).
 - Your timetable, including activity type (class, practical, workshop, tutorial, etc.), location (campus or online), and room or channel.

Note 1: In completing this task you must demonstrate notation for scoping and sequences of objects (explained in the article in CloudDeakin). There are no specific requirements regarding the actual names of the fields used in your YAML document.

Note 2: Although JSON can also be used with Kubernetes, we will be working with YAML throughout the trimester. Your answer must use YAML notation.

Submit Your Task

Prepare your submission using the word processor of your choice and submit a PDF to OnTrack.

Taking it Further (Optional)

As we progress through the trimester we will be working with the YAML notation regularly, so you will quickly learn how to work with this notation and gain confidence in the coming weeks. If you are feeling particularly lost or confused, however, take the time to undertake some quick research on the web to review examples and tutorials examining the YAML notation.

Another notation that is often used as an alternative to YAML is JSON. If you have been involved in software development projects over recent years, particularly in projects that make use of web technologies, likely, you have already come across JSON notation. Our objective of learning YAML this week is to prepare to learn Kubernetes in future weeks, where YAML is the most convenient notation, however, Kubernetes also supports JSON. You may wish to consider investigating JSON for work outside of this unit. The official specification for JSON can be found here:

<https://www.json.org/json-en.html>

Citations and Referencing

When completing any work it is necessary to acknowledge the work of others that you have relied upon. For written assessment, we achieve this through the use of citations and references. Failing to correctly identify the work of others is known as plagiarism and is considered an issue of Academic Integrity.

If your submission to this task has involved the work of others, you must include citations and references where appropriate. Deakin provides a website that explains how to use citations and references, and includes explanations of various referencing styles:

<https://www.deakin.edu.au/students/studying/study-support/referencing>

You may select any style for your citations/references, however, you must be consistent in applying that style in this task (you can use other styles in other tasks if you wish).

Note that any bibliography/list of references is not included in page limits.