

# SIT226 Cloud Automation Technologies

## High Distinction Task 4.3HD

### Project Check-In

#### Background

In completing your studies this trimester you will learn the skills to deploy and manage microservice applications, along with various issues that need to be considered in parallel, e.g., costings, replication, reliability, and so on. The HD tasks for this unit form a sequence of three tasks that represent the completion of a project requiring you to demonstrate the achievement of a high level of expertise in the unit content, in turn evidencing your achievement of the Unit Learning Outcomes at an advanced level.

#### Get Prepared

This is the second in a sequence of three tasks. To obtain an HD in the unit, you must complete all three tasks successfully, and each must be marked complete before you can proceed to the next task in the sequence.

In this task, you will provide a more detailed design and progress report for the project you are undertaking. At this stage of the project, you should have a clear understanding of what the components of the project are and be familiar with them, know what their role in the final application will be, and have a relatively clear plan for preparing and deploying those components. Any major challenges or risks to the project should have been identified, and be relatively well understood, and at a minimum, you should have a rough plan to overcome them or potentially have even resolved them/partly resolved them.

As indicated previously, the HD tasks form a project that will consist of an application deployed via Kubernetes, and that application must be adequately complex to allow you to demonstrate the ULOs of the unit at an advanced level. Effectively, in this document, you will provide a picture of what you believe the project will look like when completed, subject to minor changes that may be required.

## Complete the Task

Page Limit: 4 pages of text formatted reasonably, e.g., 2cm margins, 11 or 12 point font, appropriate headings/spacing, etc.

Prepare a document describing the current state of your project consisting of:

1. Provide an updated overview of the project you will demonstrate, the application domain it is focused on, and the functionality you expect that it will provide (approximately 0.25 page). It is reasonable that some minor aspects may change from the proposal, however, the project should still be clearly aligned with the earlier proposal submission.
2. Provide an outline of the work required to complete the project and your progress to date (up to 2 pages). It should be apparent from this discussion what work you have completed and what work remains for you to complete (emphasis on **your work for all components**), including any plans for the completing remaining work. Aspects you could consider include:
  - What are the major components of your project and how do they interact with each other? i.e., describe the architecture of your project software/solution.
  - What tasks still need to be completed for these components and what work is involved in these tasks?
  - What work has been completed to date?
  - Are there any dependencies between these tasks or upon other resources?
  - Are there any risks in completing these tasks and how have you mitigated those risks?
3. Identify and discuss the platform that you will be deploying the application on (approximately 0.5 page). Although obviously Kubernetes, there are many alternatives including open source implementations, commercial implementations, and public cloud implementations. Issues you could discuss include:
  - Are there any risks in completing these tasks and how have you mitigated those risks?
  - Why have you selected this platform and how did you arrive at its selection?
  - What is your experience with the platform?
  - If for some reason you discover you are unable to use/lose access to this platform, what is your backup plan?
4. Given that the focus of this unit is Kubernetes, what functional aspects of this system are relevant to your project and why does this demonstrate high achievement in the unit? (approximately 0.5 page)
5. For each of the five ULOs in the unit, briefly explain how your ideas have evolved to demonstrate the achievement of these ULOs at an advanced level (approximately 0.75 page).

Similar to the proposal, you aren't required to have complete and/or detailed answers to every aspect of the requirements identified above, however, it should be apparent that significant progress has been made towards the completion of the project and any work remaining should clearly be achievable in the time remaining. It would be unusual for any significant problems to remain unaddressed at this point in time however, so you should explain any unresolved issues and your approach to resolving them carefully.

## Submit Your Task

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

## **Citations and Referencing**

When completing any work for assessment it is necessary to acknowledge any content created by others that your work has relied upon 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.