SIT226 Cloud Automation Technologies

High Distinction Task 7.2HD

Project Delivery

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 final task 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 deliver the project you completed and demonstrate achievement of the HD standards. The submission is primarily a presentation, through which you can include any aids you believe appropriate including video, PowerPoint, and screen capture (to demonstrate your application), however, you may also submit any other artifacts that you believe are relevant to demonstrating your achievement of the HD.

To prepare, start by reviewing the rubric at the bottom of this document. Although much of the presentation is free-form, as are any additional artifacts you include, you should consider carefully how you will address certain elements relevant to the assessment, including:

1. Kubernetes – Kubernetes is a key part of the knowledge and skills learned in this unit. A project demonstrating HD achievement in the unit will have Kubernetes as a key part of this.
2. Demonstration – You must include any configuration (YAML files etc.) used in your project and demonstrate any software involved working and functional in the presentation. Moreover, it must be clear from your presentation (and other submission artifacts) that the project reflects work that you have completed using the knowledge and skills of this unit at an advanced level.
3. Unit Learning Outcomes – Achieving a HD in any unit reflects a high level of achievement in most dimensions of the ULOs for that unit. A high level of achievement in the ULOs must be apparent from your presentation and/or associated artifacts.

Make sure you plan your presentation properly. The exact contents are up to you but will largely depend on how you use the work you've completed to demonstrate advanced achievement of the ULOs. Your presentation should follow a normal structure, e.g., introduction, significant design elements, major outcomes, demonstration, and conclusion. Ensure that the vast majority of the focus is on ULO achievement, not on connecting elements (introduction, outline, conclusion, etc.). Similarly, while your presentation should be completed at a professional standard, ensure you remain focussed on the content of the presentation and don’t waste time unnecessarily raising production quality to an extreme level.

Complete the Task

Page Limit: 1 pages of text formatted reasonably, e.g., 2cm margins, 11 or 12 point font, appropriate headings/spacing, etc.
Note that the page limit is relevant to Requirement #3, below, only.

1. Complete the recordings for your presentation. Your presentation must not exceed 15 minutes in total (only the first 15 minutes will be viewed) and must include a demonstration of the work completed as explained elsewhere in this document.
2. Prepare a ZIP file containing all of the other artifacts you wish to include in your submission. At a minimum, this ZIP file must contain all the configuration you have written for your project, including Kubernetes configuration (YAML files etc.), and configuration for other software elements as required.
3. Prepare a document identifying the elements of your project delivery, including:
   a) Provide a link to your completed presentation in DeakinAir.
   b) Provide an outline of the contents of your ZIP file, indicating which documents are included (file name) and how they relate to the assessment criteria (up to 1 page in total).

Submit Your Task

1. Upload your presentation recording to DeakinAir per the instructions linked below. Pay careful attention to the permissions issue.
2. Upload your ZIP file to the special submission box in CloudDeakin. Note: this submission box is made available to you after completion of the Project Check-in task. If your Check-in task is marked completed but you can't see the submission box, contact the unit chair.
3. Prepare the document identifying the elements of your project delivery using the word processor of your choice and submit a PDF to OnTrack.

Instructions for using DeakinAir can be found at https://www.deakin.edu.au/students/help/about-clouddeakin/help-guides/video-and-audio/deakinair Ensure that you configure your presentation to be either unlisted or public, and confirm that your presentation is accessible by restarting your web browser (to ensure you are logged out of your Deakin account) and trying the URL. *Note that DeakinAir also includes Kaltura Capture software which can be used to perform screen captures if required.*

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 web site 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.

Rubric

Your presentation will be assessed giving consideration to the rubric below, however note that the rubric does not map directly to individual marks – your final mark is still drawn from the final portfolio, of which the HD tasks form part. Any criteria graded as 'not achieved' below is indicative that the project may not have achieved the required standard, but not exclusively. The rubric is divided into two parts. The first part focuses on the actual project itself, including the presentation/deliverables, while the second part focuses on your demonstration of the Unit Learning Outcomes (same grading standards repeated for all ULOs).

Part 1 – Project Work

Criteria	Advanced	Capable	Competent	Flawed	Not achieved (not HD)
Final Project Scope	Scope is well considered and provides ample opportunity to demonstrate a realistic application and its deployment exploiting the knowledge and skills developed in the unit.	Scope is reasonable and provides good opportunities for demonstrating mastery of the knowledge and skills developed in the unit.	Scope is adequate for demonstrating mastery of most knowledge and skills developed in the unit.	Scope is poor and provides limited opportunities to demonstrate mastery of knowledge and skills developed in the unit.	Scope is severely restrictive and is not adequate to effectively demonstrate achievement of the ULOs at an advanced level.
Kubernetes	Kubernetes is a key element of the project and contributes significantly to the advancement of the project. Most relevant Kubernetes services have been considered and/or applied in the project work.	Kubernetes has been applied where appropriate throughout the project and a high level of knowledge and skill have been demonstrated.	A variety of Kubernetes services have been applied appropriately throughout the project showing a good depth of understanding of this technology.	The project applies the functions of Kubernetes in a minimal way and the requirement for Kubernetes is generally incidental to the project.	The project does not make use of Kubernetes and is inadequate for demonstrating knowledge of Kubernetes.
Artifacts (slides and other submitted materials)	The outline and artifacts included are of high quality and provide complete insight into the work completed and the relationship between the artifacts and the criteria are well described.	A good outline and selection of quality artifacts have been included that provide a clear insight into the work completed.	The outline and artifacts included address all requirements and are of adequate quality.	Required artifacts are included however are either partially incomplete, are of poor quality, or the outline does not adequately indicate the relevance of the artifacts to the criteria.	The artifacts of the project are largely incomplete, are of an inadequate quality, or have not been outlined as required.
Presentation	A high quality and coherent presentation included that conveys clear insight into and comprehensive understanding of the work completed in the project well.	A generally good presentation that is well planned and provides a clear overview of the work completed.	An adequate presentation of the work completed in the project that follows a sensible outline.	A poor quality presentation that is poorly planned and/or does not communicate the work completed effectively.	You have not submitted a presentation, the presentation substantially does not address the requirements, or the presentation is largely incoherent.
Demonstration (included in presentation)	A high quality demonstration was included that highlights the major features of the practical work completed including the functionality provided by Kubernetes.	A good demonstration of major features of the practical work completed including references to Kubernetes functionality.	An adequate demonstration showing the major features of the practical work completed.	Very poor and/or incomplete demonstration of the practical work completed.	You have not completed a demonstration of the work you completed as part of the presentation, it is therefore not possible to verify that you have completed this work.

Part 2 – ULO Achievement

Criteria	Advanced	Capable	Competent	Flawed	Not achieved (not HD)
ULO1. Explain how computing resources are represented within cloud systems and how they are managed within both public and private cloud systems to a range of audiences.	A critical component of the project as demonstrated in the presentation and/or associated work illustrating very advanced achievement of this ULO.	An important part of the project with clear high achievement demonstrated in the presentation and/or associated work.	Core to the project and, although generally well addressed, clearly could have been improved. Strong competency has been demonstrated for this ULO.	Not a core part of the project however there are elements relevant to this ULO that collectively allow its achievement to be verified.	Not addressed in any form, either directly or incidentally. Achievement of this ULO cannot be verified.
ULO2. Install and configure cloud orchestration technologies and underlying systems for deploying, monitoring, and managing network services and applications.	A critical component of the project as demonstrated in the presentation and/or associated work illustrating very advanced achievement of this ULO.	An important part of the project with clear high achievement demonstrated in the presentation and/or associated work.	Core to the project and, although generally well addressed, clearly could have been improved. Strong competency has been demonstrated for this ULO.	Not a core part of the project however there are elements relevant to this ULO that collectively allow its achievement to be verified.	Not addressed in any form, either directly or incidentally. Achievement of this ULO cannot be verified.
ULO3. Evaluate the application of public and/or private cloud services for the deployment of network services and applications, including consideration of business impacts.	A critical component of the project as demonstrated in the presentation and/or associated work illustrating very advanced achievement of this ULO.	An important part of the project with clear high achievement demonstrated in the presentation and/or associated work.	Core to the project and, although generally well addressed, clearly could have been improved. Strong competency has been demonstrated for this ULO.	Not a core part of the project however there are elements relevant to this ULO that collectively allow its achievement to be verified.	Not addressed in any form, either directly or incidentally. Achievement of this ULO cannot be verified.
ULO4. Collaborate with software architects, developers, and dev-ops teams on developing and maintaining cloud-deployed network services and applications across the lifecycle.	A critical component of the project as demonstrated in the presentation and/or associated work illustrating very advanced achievement of this ULO.	An important part of the project with clear high achievement demonstrated in the presentation and/or associated work.	Core to the project and, although generally well addressed, clearly could have been improved. Strong competency has been demonstrated for this ULO.	Not a core part of the project however there are elements relevant to this ULO that collectively allow its achievement to be verified.	Not addressed in any form, either directly or incidentally. Achievement of this ULO cannot be verified.