

Task 3 P: Design and Deploy Model using Azure Machine Learning

This document supplies detailed information on Assessment Task 3 for this unit.

Key information

- **Due: 31st March 2024, by 11.59 pm IST**

Overview:

In week 3, we discussed how you can build and deploy a ML model using Azure ML Studio. This task will help you to understand how to design and deploy an AI-based solution on a cloud and what are the key elements for integration into different applications.

To do this assignment, you need to refer to Week 3 lecture and Olympus contents.

Submission Details:

For this task you need to design and deploy a machine learning model using Azure ML SDK. You need to use Microsoft Azure Machine Learning to design and deploy your model. To complete this task, you need to use Azure Machine learning Python SDK to train and deploy your best built model (Decision tree or Random Forest). To complete this task you need to login to your [Azure Portal](#) and create your workspace for machine learning and then train your model (you can use the model you built in week 1 or train a new model using your selected dataset) and then deploy the model on Azure.

For this task, please answer the following questions:

Q1: What is the Azure Machine Learning SDK for Python? What is Workspace? How to create a workspace for machine learning using Azure Portal? You need to log in using your Deakin email to your Azure portal and create a workspace under your resource group. We have created a resource group using university subscription and you should be able to see your resource group. Provide a screenshot for this part. Create your computing instance and cluster and explain what those parts are. Provide a screenshot of your created computing instance and cluster.

Q2. You need to use Azure Machine learning Python SDK to train and deploy your best built model (Decision tree or Random Forest) in part1. To complete this task you need to login to your [Azure Portal](#) and create your workspace for machine learning and then train your model (you can use the model you built in week 2 or train a new model using your selected dataset) and then deploy the model on Azure. You need to provide a screenshot of your built workspace, the built model using Python and how you have deployed the model using Azure Python SDK and dependencies. Every step of the development and deployment should be explained.

Instruction:

1. Review the seminar week3 (slides and videos) and follow them to design and deploy your ML on Azure.
2. You need to provide a document that includes answers to all the questions mentioned above (Q1 and Q2). Regarding Q2, you need to provide the screenshot of your designed and deployed model (with your Azure account name included in each screenshot), the explanation for each part of the model deployment, and the endpoints of your deployment. Make sure you explain the dataset clearly in the document.
3. Submit the task to Olympus.

Referencing

You must correctly use the Harvard method in this assessment. See the Deakin referencing guide.

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