

Task P - 3: Design and deploy model using Azure machine learning

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

Key information

- **Due: Sunday 9th April 2023 by 11.59 pm (IST)**
- **This assignment is graded (from Pass to Distinction).**
- **Please Specify your Target grade for this task and answer the question based on your target grade. Example - "Target Grade - P", "Target Grade - D"**

Grade	Task
P	If you clear the Pass problem statement
D	If you clear both the Pass and Distinction problem statement

Overview:

During week 3, we have 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 recording and contents.

Submission Details:

Q1: For this task you need to design and deploy a machine learning model using Azure ML studio (designer). You need to use Microsoft Azure Machine Learning Studio to design and deploy your model. To complete this task, you need to select a dataset and design a decision tree model (classification tree or regression tree) and then deploy the built model and get the API key. To do this task you need to follow the workshop recording and slides and deploy your own model on Azure. You need to provide the screenshots of your designed model, training model, the performance of the built model (e.g., Accuracy, confusion matrix and etc) and deployed model with the API key and test the model. The screenshot of the model should include your Azure account name since the API key is unique to you.

The students who target **Distinction** grade: For this task you need to answer the following questions as well.

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 screen shot 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.

Q3: you need to prepare a 3 minutes video of your model preparation (step-by-step) and how this model is working.

Instruction:

1. Review the week 3 content(slides and videos) and follow them to design and deploy your ML on Azure.
2. You need to provide a document including a screenshot of your designed and deployed model(s) and the endpoints of your deployment.
3. Submit the task to Ontrack.

Submission details

Deakin University has a strict standard on plagiarism as a part of Academic Integrity. To avoid any issues with plagiarism, students are strongly encouraged to run the similarity check with the Turnitin system. A Similarity score MUST NOT exceed 39% in any case.

Referencing

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

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