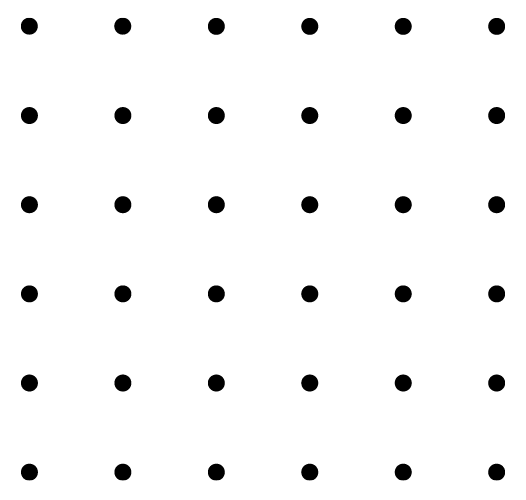
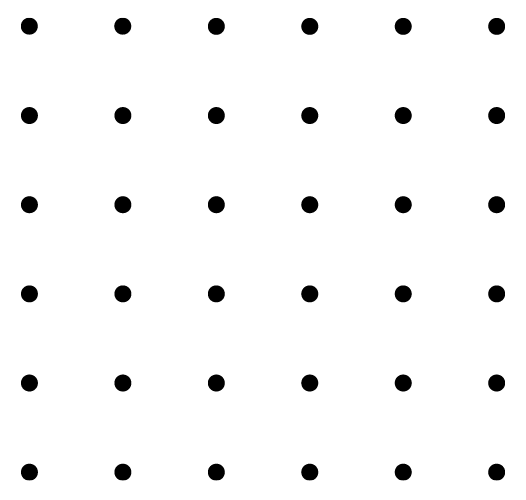
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**February 2024**

**IfATE Standard V1.0**



**BCS Level 5**

**Data Engineer Apprenticeship**

Assessment Method 1

Project Evaluation Report, Presentation and Questions

Checklist for Candidates

## Change History

Changes made to this document are recorded below. This includes the latest version number, date of the amendment, and details of the change. The purpose is to identify the updates undertaken.

|  |  |
| --- | --- |
| **Version Number & Date** | **Changes Made** |
| V1.0 | Document created. |
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## Overview

The purpose of this checklist is to support you, the apprentice, with creating your project evaluation report. The tables below provide a space for recording where and how each pass and distinction criterion (if aiming for a distinction) is covered within the project evaluation report and presentation with questions.

This document is also a useful tool for you to critically review your project report and presentation and reflect on all that you have learnt and achieved throughout the programme. Considering how each criterion is met through the evidence provided will support this process and help you identify potential areas for improvement. This review also provides an opportunity for you to undertake a final check and support you in becoming skilful in navigating your report and presentation, in preparation for the end-point assessment.

You are encouraged to gather information that evidences relevant activities undertaken in the workplace, demonstrating specific knowledge, skills and behaviours (KSBs) that are required in the project evaluation report. Notes can then be recorded in the ‘Evidence’ column, explaining why and how the evidence demonstrates meeting the necessary competencies.

The apprenticeship standards are designed to cover a wide range of different job roles. If the relevant knowledge, skills and behaviours evidenced in the project evaluation report are weak due to limited exposure within the day-to-day activities of the workplace, it will limit the number of relevant examples of work that you can draw on to evidence your competency during the assessment. Please discuss any concerns around limited exposure to suitable tasks with your employer and training provider as soon as possible.

Please note, the use of this checklist is a recommendation only; it is not mandatory and will not be assessed.

|  |
| --- |
| **Top Tips** |
| * Refer to the assessment plan and understand exactly what evidence is required for this assessment method. * Ensure that there are relevant activities at work to support the development of evidence. * Ensure that your submission includes genuine evidence and not simulations. * Use the checklist when planning work activities to ensure that you are developing relevant knowledge, skills and behaviours on the job, that can be used as evidence. |

The checklist below outlines the criteria relevant to this assessment method. Use the checklist to plan work activities and to check that the project aligns with the required criteria.

## Assessment method 1: Project evaluation report and presentation and questions

**Apprentice Details**

|  |  |
| --- | --- |
| **Name** |  |
| **ULN** |  |
| **Training Provider** |  |
| **Employer** |  |

**Data Product Design**

|  |  |
| --- | --- |
| **Criteria to be met to achieve a pass grade** | **Evidence**  **(Which document(s) and where within that document can this be found?)** |
| Demonstrates how they have collated, evaluated and refined user requirements to design and build a scalable data product that serves multiple needs and complies with regulatory requirements. (K9, S1, S3) |  |
| Explains how they collated, evaluated and refined business requirements, to design, build and maintain a system whilst ensuring that organisational strategies for sustainable, net-zero technologies are considered. (K12, S2) |  |
| Explains how they selected sustainable solutions in relation to data products and environmental social governance to ensure the use of less carbon across the various stages of product and service delivery. (K7, S27) |  |
| Demonstrates how they used security, scalability and governance when automating data pipelines using programming languages and data integration platforms with graphical user interfaces. (K13, S4) |  |
| Demonstrates how they have taken accountability produced and maintained technical documentation for a data product in order to meet organisational user requirements, whilst adapting to changing work priorities to ensure that deadlines are met. (S5, B1) |  |
| Explains how debugging, version control and testing have an impact on  software development and the principles for data products. (K6) |  |
| Outlines the uses of different on-demand cloud computing platforms. (K14) |  |
| **Criteria to be met to achieve a distinction grade**  (The apprentice must meet all pass and all distinction criteria to achieve a distinction grade.) | **Evidence**  **(Which document(s) and where within that document can this be found?)** |
| Justifies how the data product created met the requirements and served multiple needs. (S1, S3) |  |

**Data Product Deployment and Evaluation**

|  |  |
| --- | --- |
| **Criteria to be met to achieve a pass grade** | **Evidence**  **(Which document(s) and where within that document can this be found?)** |
| Explains the deployment approaches processes for new data pipelines and automated processes. (K8) |  |
| Explains techniques such as star schemas, data lakes and data marts and the impact they have on data warehousing principles. (K15) |  |
| Demonstrate how to systematically clean, validate and describe data at all stages of extract, transform and load, showing how combining disparate data sources and taking different approaches to data integration delivers value to an organisation.  (K17, S6) |  |
| Describes the types and uses of data engineering tools in their own organisation and how they apply them. (K20) |  |
| Evaluates the strengths and weaknesses of prototype data products to integrate within an organisation’s overarching data structure, taking into consideration the lifecycle of implementing data solutions in a business. (K24, K25, S24) |  |
| Describes the approved organisational architectures and the relevant data development frameworks. (K26) |  |
| Identifies data quality metrics and their frameworks and tracks them to ensure quality, accuracy and reliability of the data product. (K4, S26) |  |
| Demonstrates the use of tools and programming to query and manipulate data and implement automated validation checks, showing the methodologies used for moving data from one system to another for storage and handling. (K2, S9) |  |
| Explains how they have worked with structured, semi-structured and unstructured data, developing algorithms to extract from sources. (K19, S16) |  |
| **Criteria to be met to achieve a distinction grade**  (The apprentice must meet all pass and all distinction criteria to achieve a distinction grade.) | **Evidence**  **(Which document(s) and where within that document can this be found?)** |
| Evaluates the success of the algorithm developed. (S16) |  |

**Collaborative Working**

|  |  |
| --- | --- |
| **Criteria to be met to achieve a pass grade** | **Evidence**  **(Which document(s) and where within that document can this be found?)** |
| Outlines the methods and techniques used to communicate messages about the data product that meet the needs of the audience. (K30, S23) |  |
| Explains how they worked collaboratively with different technical and non-technical stakeholders, using adaptive business methodology to support an inclusive culture and develop and maintain strong working relationships in order to achieve common goals. (S22, B2) |  |
| **Criteria to be met to achieve a distinction grade**  (The apprentice must meet all pass and all distinction criteria to achieve a distinction grade.) | **Evidence**  **(Which document(s) and where within that document can this be found?)** |
| Evaluate the impact of the methods and techniques used to communicate messages about the data product to the audience. (K30, S23) |  |