IfATE

Shaping skills training

DATA TECHNICIAN

Details of standard

Occupation summary

This occupation is found in all sectors where data is generated or processed including but not limited to finance, retail, education, health, media, manufacturing and hospitality. The broad purpose of the occupation is to source, format and present data securely in a relevant way for analysis using basic methods; to communicate outcomes appropriate to the audience; analyse structured and unstructured data to support business outcomes; blend data from multiple sources as directed and apply legal and ethical principles when manipulating data. In their daily work, an employee in this occupation interacts with a wide range of stakeholders including colleagues, managers, customers and internal and external suppliers. They would typically work as a member of a team; this may be office based or virtual. An employee in this occupation will be responsible for collecting and processing data under the guidance of a senior colleague or multiple colleagues across the business. This may vary by sector and size of the organisation. An employee would mainly be responsible for their own work but may have the opportunity to mentor others.

Typical job titles include:

| Data support analyst | | Data technician | | Junior data analyst |

| Junior information analyst |

Occupation duties

DUTY	CRITERIA FOR MEASURING PERFORMANCE	KSBS
Duty 1 source data from a collection of already identified trusted sources in a secure manner	Data is collected securely from trusted sources in line with current company requirements informed by relevant regulatory and legal standards and industry best practice	K1 K2 K15 S1 B1 B2 B4
Duty 2 collate and format data to facilitate processing and presentation for review and further advanced analysis by others	Data collated and formatted according to company procedures and recognised industry good practice	K3 S2 S16 B1 B2 B4
Duty 3 present data for review and analysis by others, using required medium for example tables, charts and graphs	Data is presented in an appropriate format for review and analysis in line with company procedures and industry best practice.	K4 K5 S3 B5 B6
Duty 4 blend data by combining data from various sources and formats to explore its relevance for the business needs	Data is blended ensuring that accuracy and consistency is maintained in line with current company requirements informed by relevant regulatory and legal standards and industry best practice	K6 S4 S5 S6 S16 B1 B2 B4
Duty 5 analyse simple and complex structured and unstructured data to support business outcomes using basic statistical methods to analyse the data.	Data is structured in a way that meets business outcomes	K7 K8 K9 S7 B1 B2 B3 B4 B5 B6
Duty 6 validate results of analysis using various techniques, e.g cross checking, to identify faults in data results and to ensure data quality	Results are validated in line with organisation and project data quality requirements	K10 K11 S8 S9 S16 B1 B2 B3 B4

Duty 7 communicate results verbally, through reports and technical documentation and tailoring the message for the audience	Results from data communicated in line with audience requirements	K5 K12 S10 S11 B5 B6
Duty 8 store, manage and share data securely in a compliant manner	Data is stored, managed and shared in line with organisation, legal and regulatory requirements	K13 S12 S15 B4
Duty 9 collaborate with people both internally and externally at all levels with a view to creating value from data	The employee is able to confidently engage with people internally and externally at all levels in a professional manner	K14 S13 S15 S16 S17 S18 B2 B5 B6
Duty 10 practise continuous self learning to keep up to date with technological developments to enhance relevant skills and take responsibility for own professional development	Articulate the latest technology trends affecting data analysis and can communicate the impacts of latest trends	K15 K16 S14 S15 S16 S17 S18 B2 B3 B4

KSBs

Knowledge

K1: Range of different types of existing data. Common sources of data - internal, external, open data sets, public and private. Data formats and their importance for analysis. Data architecture - the framework against which data is stored and structured including on premises and cloud.

K2: How to access and extract data from a range of already identified sources.

K3: How to collate and format data in line with industry standards.

K4: Data formats and their importance for analysis Management and presentation tools to visualise and review the characteristics of data Communication tools and technologies for collaborative working.

K5: Communication methods, formats and techniques, including: written, verbal, non-verbal, presentation, email, conversation, audience and active listening Range of roles within an organisation, including: customer, manager, client, peer, technical and non-technical.

K6: The value of data to the business. How to undertake blending of data from multiple sources.

K7: Algorithms, and how they work using a step-by-step solution to a problem, or rules to follow to solve the problem and the potential to use automation.

K8: How to filter details, focusing on information relevant to the data project.

K9: Basic statistical methods and simple data modelling to extract relevant data and normalise unstructured data.

K10: The range of common data quality issues that can arise e.g. misclassification, duplicate entries, spelling errors, obsolete data, compliance issues and interpretation/ translation of meaning.

K11: Different methods of validating data and the importance of taking corrective action.

K12: Communicating the results through basic narrative.

K13: Legal and regulatory requirements e.g. Data Protection, Data Security, Intellectual Property Rights (IPR), Data sharing, marketing consent, personal data definition. The ethical use of data.

K14: The significance of customer issues, problems, business value, brand awareness, cultural awareness/ diversity, accessibility, internal/ external audience, level of technical knowledge and profile in a business context.

K15: The role of data in the context of of the digital world including the use of eternal trusted open data sets, how data underpins every digital interaction and connectedness across the digital landscape including applications, devises, IoT, customer centricity.

K16: Different learning techniques, learning techniques and the breadth and sources of knowledge.

Skills

S1: Source and migrate data from already identified different sources.

S2: Collect, format and save datasets.

S3: Summarise and explain gathered data.

S4: Blend data sets from multiple sources and present in format appropriate to the task.

S5: Manipulate and link different data sets as required.

S6: Use tools and techniques to identify trends and patterns in data.

S7: Apply basic statistical methods and algorithms to identify trends and patterns in data.

S8: Apply cross checking techniques for identifying faults and data results for data project requirements.

S9: Audit data results.

S10: Demonstrate the different ways of communicating meaning from data in line with audience requirements.

S11: Produce clear and consistent technical documentation using standard organisational templates.

S12: Store, manage and distribute in compliance with data security standards and legislation.

S13: Explain data and results to different audiences in a way that aids understanding.

S14: Review own development needs.

S15: Keep up to date with developments in technologies, trends and innovation using a range of sources.

S16: Clean data i.e. remove duplicates, typos, duplicate entries, out of date data, parse data (e.g. format telephone numbers according to a national standard) and test and assess confidence in the data and its integrity.

S17: Operate as part of a multi-functional team.

S18: Prioritise within the context of a project.

Behaviours

B1: Manage own time to meet deadlines and manage stakeholder expectations.

B2: Work independently and take responsibility.

B3: Use own initiative.

B4: A thorough and organised approach.

B5: Work with a range of internal and external customers.

B6: Value difference and be sensitive to the needs of others.

Qualifications

English and Maths

Apprentices without level 2 English and maths will need to achieve this level prior to taking the End-Point Assessment. For those with an education, health and care plan or a legacy statement, the apprenticeship's English and maths minimum requirement is Entry Level 3. A British Sign Language (BSL) qualification is an alternative to the English qualification for those whose primary language is BSL.

Additional details

Occupational Level:

3

Duration (months):

24

Review

This apprenticeship standard will be reviewed after three years

Version log

VERSION	CHANGE DETAIL	EARLIEST START DATE	LATEST START DATE	LATEST END DATE
1.0	Approved for delivery	10/07/2020	Not set	Not set