# Data modelling and design DTAN

Developing models and diagrams to represent and communicate data requirements and data assets.

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| **Guidance Notes:**Data modelling supports activities such as, but not limited to:* helping organisations understand their data assets, developing software systems, and the relationships between real-world entities
* engaging with stakeholders to gather requirements and ensure data models align with business objectives
* facilitating data engineering, integration and interoperability
* enhancing data retrieval
* supporting data governance and master data management
* incorporating industry reference data standards to ensure consistency, interoperability, and compliance.

Data models typically include components such as entities, relationships, attributes, and domains. There are various types of data models, including relational, object-oriented, NoSQL, and time-based.Data models communicate different levels of detail, including conceptual, logical and physical.  |

## Level 2

Establishes, modifies or maintains simple data structures and associated components.
Uses specific data modelling and design techniques under guidance.

## Level 3

Applies standard data modelling and design techniques based upon a detailed understanding of requirements.
Establishes, modifies and maintains data structures and associated components.
Communicates the details of data structures and associated components to others using the data structures and associated components.

## Level 4

Investigates enterprise data requirements where there is some complexity and ambiguity.
Plans own data modelling and design activities, selecting appropriate techniques and the correct level of detail for meeting assigned objectives.
Provides advice and guidance to others using the data structures and associated components.

## Level 5

Sets standards for data modelling and design tools and techniques, advises on their application and ensures compliance.
Manages the investigation of enterprise data requirements based upon a detailed understanding of information requirements.
Coordinates the application of analysis, design and modelling techniques to establish, modify or maintain data structures and their associated components.
Manages the iteration, review and maintenance of data requirements and data models.