# Database design DBDS

Specifying, designing and maintaining mechanisms for storing and accessing data.

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| **Guidance Notes:**  Activities may include, but are not limited to:   * designing operational databases, data warehouses, data lakes, or data stores for on-premise, cloud-based, or hybrid environments * defining physical or virtual structures required to support applications, analytics, machine learning, business intelligence or other data-driven services * designing operational data stores to integrate data from multiple sources to support data pipelines and enable additional operations on the data * aligning designs with data architectures, enterprise architectures, standards, policies, and regulations * considering scalability, performance, availability, recovery, and other operational requirements. |

## Level 2

Assists in the creation and documentation of detailed database designs under routine supervision.   
Follows established procedures and guidelines.   
Helps create and maintain documentation.

## Level 3

Interprets installation standards to meet project needs and produces database or data warehouse component specifications.   
Develops appropriate physical database or data warehouse design elements, within set policies, to meet data requirements.

## Level 4

Implements physical database designs to support transactional data requirements for performance and availability.   
Develops and maintains specialist knowledge of database and data warehouse concepts, design principles, architectures, software and facilities.   
Assesses proposed changes to object/data structures and evaluates alternative options.   
Implements data warehouse designs that support demands for business intelligence and data analytics.

## Level 5

Provides specialist expertise in the design characteristics of database management systems or data warehouse products/services.   
Provides expert guidance in the selection, provision and use of database and data warehouse architectures, software and facilities.   
Ensures that physical database design policy supports transactional data requirements for performance and availability.   
Ensures that data warehouse design policy supports demands for business intelligence and data analytics.