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| Title | **Use databases in web development** |
| Level | **3** | **Credits** | **8** |

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| Purpose | The competency standard aims to assist to create a database of a website in any Database Management System. |

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| Classification ISCED | 0613 Software and applications development and analysis |

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| Available grade | Competent / Not yet competent |

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| Modification history | N/A |

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| **Competency Unit** | **Performance Criteria** | **Knowledge and Understanding** |
| **E1: Discuss the basics and Historical Perspectives of Databases** | **The trainee will be able to:****P1.** Recognise basic database concepts such as:* Row
* Column
* Table
* Relationships
* Quires
* Normalisation
* Denormalisation
* Database
* Relational Database
* Management System
* Primary Key
* Foreign Key
* Indexing
* Entity Relationship Diagram

**P3.** Identify difference between free database and licensed database**P4.** Spell out the role of database in web applications | **The trainee will be able to:****K1.** Define the basic concepts of databases**K2.** Distinguish free database and licensed database**K3.** Explain the role of database in web applications |

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| **E2: Differentiate different Database Management Systems (DBMS)** | **The trainee will be able to:****P1.** Compare options/Features of different database management systems**P2.** Install different database management systems on a computer such as:* Microsoft Access
* Microsoft SQL Server
* Microsoft SQL
 | **The trainee will be able to:****K1.** Make clear the options and features of different database management systems**K2.** Analyse and install different database management systems |
| **E3: Create Database of a Website in a Database Management System.** | **The trainee will be able to:****P1.** Design a Database of a web project such as:* Tables creation
* Creation of Entity Relationship Diagram
* Normalization / De-normalization of the Entity Relationship Diagram

**P4.** Implement indexing and cascading to the database | **The trainee will be able to:****K1.** Draft a database for any web project in any Database Management System |