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

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

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

|  |  |
| --- | --- |
| Available grade | Competent / Not yet competent |

|  |  |
| --- | --- |
| Modification history | N/A |

|  |  |  |
| --- | --- | --- |
| **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 |

|  |  |  |
| --- | --- | --- |
| **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 |