# **L5 CONTENT-SOD**

* Secure Database
* Perform system analysis and design
* Develop a Database
* Setup a Database server
* Deploy a web application
* Develop a web application

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| **Specific competence to implement** | **Activities to carry out** | **Performance criteria** |
| 1. **Perform system analysis and design** | Support small-scale ICT project | 1. Scope document, work breakdown structure, Gantt Chart, Costings and invoice 2. Reject decision log, work breakdown structure, scope document 3. Costing and invoicing, Gantt Chart |
|  | * + - 1. The new system design is introduced       2. Functions of the environment in an information system are identified       3. System design is described |
| 1. **Develop a database** | Develop a database | 1. SQL commands for tables with attribute definitions are described 2. Eliminating unnecessary relationships is done 3. SQL commands for tables with attribute definitions are executed |
| 1. **Secure Database** | Apply database security | * + - 1. Database access matrix models are described       2. Database attacks are elaborated. |
| 1. **Setup a Database server** | Setup a Database server | 1. SQL server is evaluated 2. Configuration testing is done 3. Database backup and restore is performed 4. The Database server is installed |
| 1. **Develop a web application** | Develop a back-end application | 1. JSON data in python are manipulated 2. Email with JSON data is manipulated |
| Develop a web application | 1. Tools, equipment, and materials are selected 2. CRUD operations are implemented 3. Front end and database are integrated 4. Reports are generated |
|  | 1. Apply PHP Fundamentals 2. Implement PHP Logic 3. Perform PHP MYSQL database interactions 4. Use PHP frameworks |
| **6.Deploy a web application** |  | 1. Process of deployment are explored 2. Hardware deployment equipment is described 3. Deployment tools are described 4. The 5-tier system architecture is described |