|  |  |
| --- | --- |
| Title | **Handle database** |
| Level | **2** | **Credits** | **6** |

|  |  |
| --- | --- |
| Purpose | This module aims to enable the learner to maintain company records (Set of logically related data) in an information system. |

|  |  |
| --- | --- |
| Classification ISCED | 0611 Computer use |

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

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

|  |  |  |
| --- | --- | --- |
| **Competency Unit** | **Performance Criteria** | **Knowledge and Understanding** |
| **C1: Keep Record** | **The trainee will be able to:****P1**. Enlist the techniques to mention fields and records in a table.**P2**. Enlist different “keys” for the functionality of having indexes.**P3**. Describe different data type e.g. character, number, logical, and date/time, etc.**P4**. Define the role of different “keys” including Primary Key, etc.**P5**. Illustrate definition of a Database; not null, unique, logical data entry.**P6**. Create tables and indexes in a database.**P7**. Describe DDL, DML concepts to insert/ modify operations of a table.**P8**. Describe search criteria (queries) e.g. select, etc. | **K1**. Learn between column (field), row (record)**K2**. Elaborate structure of a table (Database) in similarity with a table of a word document file**K3**. Understand the database concept.**K4**. Understand the procedure of database creation.**K5**. Understand the use selection and limitation of different data types.**K6**. Learn to execute specific search through queries.**K7**. Learn procedure of data entry and assurance procedure to check validity of entered data. |

|  |  |  |
| --- | --- | --- |
| **Competency Unit** | **Performance Criteria** | **Knowledge and Understanding** |
| **C2: Manage Database Relationship** | **The trainee will be able to:****P1**. Establish relationships on different data entities defined, e.g. 1:1, 1:M, M:N**P2**. Design ERD (entity relationship diagram).**P3**. Design DFD (Data Flow Diagram)**P4**. Draw step wise and design a Data Flow Diagram. | **K1**. Learn the steps to find the relationships between entities through cardinality concepts.**K2**. Learn the steps to design Entities Relationship diagrams for (1:1, 1: N, N: N) relations.**K3**. Follow steps to design Data Flow Diagram.**K4**. Understand Normalization process up to level 3. |