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| **Domain Component** | |
| **1. General information** | |
| **1.1** Identification (label) | DatabaseManagement |
| **1.2** Type | Own development |
| **1.3** Overview | This component provides a set of classes and files that allow the communication with a database management system. Therefore, it includes the generation of a SQL file which includes the final SQL database table creation statements and the SQL database alter table statements for the derived product. |
| **2. History** | |
| **2.1** Version | 1.0 |
| **2.2** Date | 07/10/2019 |
| **2.3** Developer | Luis F. Londoño |
| **2.4** Main Improvements | This component does not have previous versions. |
| **3. Metadata** | |
| **3.1** Keywords | Database, SQL |
| **4. Main functionalities / Interfaces** | |
| **4.1** DatabaseManagement-DB getConexion() | |
| **4.1.1** Name | getConexion(). |
| **4.1.2** Description | Allow to establish a connection with the database. |
| **4.1.3** Inputs | Database driver, url, user, and pass. Collected from the DatabaseManagement-Config file. |
| **4.1.4** Output | N/A. |
| **5. Quality** | |
| **5.1** Modifiability | Tightly coupled with other components because of the use of fragmentation points. |
| **5.2** Security | Protection against SQL injection |
| **5.3** … | … |
| **6. Implementation** | |
| **6.1** Languages | Java - SQL |
| **6.2** Composition/Installation | Automated through FragOP – VariaMos |

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| **Domain Component Files** | |
| **F1.1 General information** | |
| **F1.1.1** Identification (label) | DatabaseManagement-DB |
| **F1.1.2** Type | Domain File |
| **F1.1.3** Language | Java |
| **F1.1.4** Overview | A Java class with a set of methods to communicate with the database. |

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| **Domain Component Files** | | |
| **F2.1 General information** | | |
| **F2.1.1** Identification (label) | | DatabaseManagement-MainSQL |
| **F2.1.2** Type | | Domain File |
| **F2.1.3** Language | | SQL |
| **F2.1.4** Overview | | An empty file which will contain the final SQL database table creation statements and the SQL database alter table statements. |
| **F2.2 Fragmentation points** | | |
| **F2.2.1** FP name - use | fline – used for including the SQL table creation statements | |
| **F2.2.2** FP name - use | lline – used for including the SQL alter table statements | |

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| **Domain Component Test** | |
| **1. General Information** | |
| **1.1** Test criteria | For acceptance, the test cases 001, 002, 003 have to be  carried out. |
| **1.2** Test overview | DatabaseManagement was tested to support the communication with multiple database drivers (Oracle, MySQL, and SQLServer) |
| **2. Test cases** | |
| **2.1** Test case 001 | |
| **2.1.1** Description | The DatabaseManagement was requested to establish a connection with 3 different drivers over a simulation environment (Eclipse with MySQL, Oracle and SQLServer), and using some database test config variables. |
| **2.1.2** Inputs | Void |
| **2.1.3** Date | 08/10/2019 |
| **2.1.4** Tester | Luis F. Londoño |
| … | … |