845-User Manual-Compare results of two queries

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# 1. Introduction

This manual provides instructions for installing, configuring, and using the application. "CompareQueries" wich is a Java-based application designed to compare results from two database queries.

The JAR provided includes everything you need, so you can use it directly. However, you must first define the database connection data in the config.properties file.  
On the other hand, defining the log writing level in the logging.properties file is optional.

Side information: To use the application, JDK 21 or JRE compatible with that version must be installed.

# 2. Installation

## System Requirements

* Java Development Kit (JDK) installed on your system.
* Access to the database(s) referenced in the configuration.

## Installation Steps

1. Download the QueryComparator application from https://github.com/vicogo/compare-results-2-queries
2. Extract the contents of the package to your desired location.

# 3. Getting Started

## Configuration

config.propertiesfile contains parameters for application and must be updated with conexion databases data and query templates that will be used.

|  |
| --- |
| #-------------------------------------------------------------------------------  # Configuration of the database data needed by the SQLRunner application  #  # The parameters to identify the database must match  # SIGABO or CDC\_S1GA to identify which database the application will use  # to run query  #  # The value of query.template has variables (%s) that must be replaced by  # parameters that the application will receive and that will correspond to a table name  # and conditions that will make up the SQL query.  #  # See Readme.txt file, example of how the application will receive the parameters.  #  # Author: Victor Hugo Gonzales Alvarez  #-------------------------------------------------------------------------------    # SIGABO Database conection  SIGABO.db.url=jdbc:oracle:thin:@//mptstdb-scan.tigo.net.bo:1521/pmptstdb.tigo.net.bo  SIGABO.db.user=sigabo  SIGABO.db.password=sigabo\_123#    # CDC\_S1GA Database conection  CDC\_S1GA.db.url=jdbc:oracle:thin:@//mptstdb-scan.tigo.net.bo:1521/pmptstdb.tigo.net.bo  CDC\_S1GA.db.user=CDC\_S1GA  CDC\_S1GA.db.password=CDC\_S1GA    # Query template 1  query.template1=SELECT count(1) FROM %s WHERE %s    # Query template 2  query.template2=\  SELECT 'CLIENTE' tabla, count(1) cantidad FROM SIGABO.CLIENTE UNION ALL \  SELECT 'CLIENTEEMAIL' tabla, count(1) cantidad FROM SIGABO.CLIENTEEMAIL UNION ALL \  SELECT 'CLIENTERUT' tabla, count(1) cantidad FROM SIGABO.CLIENTERUT UNION ALL \  SELECT 'CONTRATO' tabla, count(1) cantidad FROM SIGABO.CONTRATO UNION ALL \  SELECT 'CPTOFACTURA' tabla, count(1) cantidad FROM SIGABO.CPTOFACTURA UNION ALL \  SELECT 'FACTURA' tabla, count(1) cantidad FROM SIGABO.FACTURA where facturaperiodo >=202403 UNION ALL \  SELECT 'FACTURALINEA' tabla, count(1) cantidad FROM SIGABO.FACTURALINEA where FACTURALINPERIODO >=202403 UNION ALL \  SELECT 'PLANCOMERCIAL' tabla, count(1) cantidad FROM SIGABO.PLANCOMERCIAL UNION ALL \  SELECT 'PRODUCTO' tabla, count(1) cantidad FROM SIGABO.PRODUCTO    # Query template 3  query.template3=\  SELECT 'CLIENTE' tabla, count(1) cantidad FROM CDC\_S1GA.CLIENTE UNION ALL \  SELECT 'CLIENTEEMAIL' tabla, count(1) cantidad FROM CDC\_S1GA.CLIENTEEMAIL UNION ALL \  SELECT 'CLIENTERUT' tabla, count(1) cantidad FROM CDC\_S1GA.CLIENTERUT UNION ALL \  SELECT 'CONTRATO' tabla, count(1) cantidad FROM CDC\_S1GA.CONTRATO UNION ALL \  SELECT 'CPTOFACTURA' tabla, count(1) cantidad FROM CDC\_S1GA.CPTOFACTURA UNION ALL \  SELECT 'FACTURA' tabla, count(1) cantidad FROM CDC\_S1GA.FACTURA where facturaperiodo >=202403 UNION ALL \  SELECT 'FACTURALINEA' tabla, count(1) cantidad FROM CDC\_S1GA.FACTURALINEA where FACTURALINPERIODO >=202403 UNION ALL \  SELECT 'PLANCOMERCIAL' tabla, count(1) cantidad FROM CDC\_S1GA.PLANCOMERCIAL UNION ALL \  SELECT 'PRODUCTO' tabla, count(1) cantidad FROM CDC\_S1GA.PRODUCTO    # Maximum number of records to display per query.  MAX\_RESULT\_SET\_LENGTH= 100    # Separator to show the fields of each record  STRING\_SEPARATOR=|    # Enable (1) or disable (0) console logging  CONSOLE\_LOGGING= 0    # Enable (1) or disable (0) stack trace filter using "com.tigo"  STACK\_TRACE\_FILTERED= 1 |

Code Block 1 config.properties

## Running the Application

Open a terminal or command prompt, then, navigate to the directory where the JAR is and run the application using the following command:

> java -jar CompareResultsTwoQueries-1.0-SNAPSHOT-jar-with-dependencies.jar [PARAM1] [PARAM2] [PARAM3] [PARAM4] [PARAM5] [PARAM6] [PARAM7] [PARAM8] [PARAM9]

Where the parameters represent:

* [PARAM1]: It is the reference to the database that is defined in the config.properties file. Values could be SIGABO or CDC\_S1GA
* [PARAM2]: It is the reference to query template that is defined in the config.properties file. Values could be template1, template2 or template3.
* [PARAM3]: It is the table name required to query using SQL. This value will be replaced in query.template1 that is defined in config.properties
* [PARAM4]: It is the SQL condition. This value will be replaced in query.template1 that is defined in config.properties
* Parameters [PARAM4] [PARAM5] [PARAM6] [PARAM7] [PARAM8] have the same meaning as their predecessor in the same order, the only difference is that they are for the following query
* Finally, [PARAM9] is value of maximum acceptable difference between numeric result of two queries. Only applies if it used query templat1.

Moreover, value written in console as result could be:

IGUAL: It means that result of both queries is the same.

DIFERENTE: It means that result of both queries is not the same. If result value of queries is numeric, value exceed the maximum value acceptable difference.

DIFERENCIA\_ACEPTABLE: Only applies for numeric result. It means that numeric result value is different but doesn't exceed the maximum value acceptable.

### Example 1

Compare quantity rows from table FACTURALINEA from different databases using template1

|  |
| --- |
| > java -jar CompareResultsTwoQueries-1.0-SNAPSHOT-jar-with-dependencies.jar CDC\_S1GA template1 "CDC\_S1GA.FACTURALINEA" "1=1" SIGABO template1 "SIGABO.FACTURALINEA" "1=1" 50    DIFERENTE |

Code Block 2 Jar call using template1

Execution details are in compare\_results.log file.

|  |
| --- |
| 2024-05-14 00:16:36::INFO::CDC\_S1GA-SIGABO::\*\*\*\*INICIO\*\*\*\*  2024-05-14 00:19:08::INFO::CDC\_S1GA-SIGABO::Resultado comparacion: DIFERENTE (180804192,00)  2024-05-14 00:19:08::INFO::CDC\_S1GA::Query ejecutado: SELECT count(1) FROM CDC\_S1GA.FACTURALINEA WHERE 1=1  2024-05-14 00:19:08::INFO::CDC\_S1GA::Tiempo de ejecución: 8910 ms  2024-05-14 00:19:08::INFO::CDC\_S1GA::Cantidad total de registros: 1  2024-05-14 00:19:08::INFO::CDC\_S1GA::Resultado: 5217866  2024-05-14 00:19:08::INFO::SIGABO::Query ejecutado: SELECT count(1) FROM SIGABO.FACTURALINEA WHERE 1=1  2024-05-14 00:19:08::INFO::SIGABO::Tiempo de ejecución: 142272 ms  2024-05-14 00:19:08::INFO::SIGABO::Cantidad total de registros: 1  2024-05-14 00:19:08::INFO::SIGABO::Resultado: 186022063 |

Code Block 3 compare\_results.log, example 1

### Example 2

Compare quantity rows from many tables from SIGABO and CDC\_S1GA databases using template2 and template3

|  |
| --- |
| >java -jar CompareResultsTwoQueries-1.0-SNAPSHOT-jar-with-dependencies.jar SIGABO  template2 "-" "1=1" CDC\_S1GA template3 "-" "1=1" 0    DIFERENTE |

Code Block 4 Jar call using template2 and template3

Execution details are in compare\_results.log file

|  |
| --- |
| 2024-05-14 00:31:28::INFO::SIGABO-CDC\_S1GA::\*\*\*\*INICIO\*\*\*\*  2024-05-14 00:33:58::INFO::SIGABO-CDC\_S1GA::Resultado comparacion: DIFERENTE ()  2024-05-14 00:33:58::INFO::SIGABO::Query ejecutado: SELECT 'CLIENTE' tabla, count(1) cantidad FROM SIGABO.CLIENTE UNION ALL SELECT 'CLIENTEEMAIL' tabla, count(1) cantidad FROM SIGABO.CLIENTEEMAIL UNION ALL SELECT 'CLIENTERUT' tabla, count(1) cantidad FROM SIGABO.CLIENTERUT UNION ALL SELECT 'CONTRATO' tabla, count(1) cantidad FROM SIGABO.CONTRATO UNION ALL SELECT 'CPTOFACTURA' tabla, count(1) cantidad FROM SIGABO.CPTOFACTURA UNION ALL SELECT 'FACTURA' tabla, count(1) cantidad FROM SIGABO.FACTURA where facturaperiodo >=202403 UNION ALL SELECT 'FACTURALINEA' tabla, count(1) cantidad FROM SIGABO.FACTURALINEA where FACTURALINPERIODO >=202403 UNION ALL SELECT 'PLANCOMERCIAL' tabla, count(1) cantidad FROM SIGABO.PLANCOMERCIAL UNION ALL SELECT 'PRODUCTO' tabla, count(1) cantidad FROM SIGABO.PRODUCTO  2024-05-14 00:33:58::INFO::SIGABO::Tiempo de ejecución: 91572 ms  2024-05-14 00:33:58::INFO::SIGABO::Cantidad total de registros: 9  2024-05-14 00:33:58::INFO::SIGABO::Resultado: CLIENTE|2197255CLIENTEEMAIL|1933909  CLIENTERUT|2396537  CONTRATO|14171919  CPTOFACTURA|3182  FACTURA|658224  FACTURALINEA|2853661  PLANCOMERCIAL|6770  PRODUCTO|632  2024-05-14 00:33:58::INFO::CDC\_S1GA::Query ejecutado: SELECT 'CLIENTE' tabla, count(1) cantidad FROM CDC\_S1GA.CLIENTE UNION ALL SELECT 'CLIENTEEMAIL' tabla, count(1) cantidad FROM CDC\_S1GA.CLIENTEEMAIL UNION ALL SELECT 'CLIENTERUT' tabla, count(1) cantidad FROM CDC\_S1GA.CLIENTERUT UNION ALL SELECT 'CONTRATO' tabla, count(1) cantidad FROM CDC\_S1GA.CONTRATO UNION ALL SELECT 'CPTOFACTURA' tabla, count(1) cantidad FROM CDC\_S1GA.CPTOFACTURA UNION ALL SELECT 'FACTURA' tabla, count(1) cantidad FROM CDC\_S1GA.FACTURA where facturaperiodo >=202403 UNION ALL SELECT 'FACTURALINEA' tabla, count(1) cantidad FROM CDC\_S1GA.FACTURALINEA where FACTURALINPERIODO >=202403 UNION ALL SELECT 'PLANCOMERCIAL' tabla, count(1) cantidad FROM CDC\_S1GA.PLANCOMERCIAL UNION ALL SELECT 'PRODUCTO' tabla, count(1) cantidad FROM CDC\_S1GA.PRODUCTO  2024-05-14 00:33:58::INFO::CDC\_S1GA::Tiempo de ejecución: 58629 ms  2024-05-14 00:33:58::INFO::CDC\_S1GA::Cantidad total de registros: 9  2024-05-14 00:33:58::INFO::CDC\_S1GA::Resultado: CLIENTE|2077902CLIENTEEMAIL|1804339  CLIENTERUT|2264536  CONTRATO|13133759  CPTOFACTURA|2792  FACTURA|0  FACTURALINEA|0  PLANCOMERCIAL|6707  PRODUCTO|502 |

Code Block 5 compare\_results.log, example 2

# 4. Viewing Log Files

1. Log files are generated in the application directory.
2. Open the compare-results.log file to view the application logs.

# 6. Technical Support

If you encounter any issues or have questions about "CompareQueries", please contact our technical support team at gonzalesv@tigo.net.bo

# 7. Appendix

## Glossary

* "CompareQueries": The name of the Java application.
* config.properties: Configuration file for the application.
* compare-results.log: Log file generated by the application.