Universitè Ibn Khaldoun
Faculty of Mathematics and
Computer Scienc
Department of Informatique

Group NULL
Job Individually

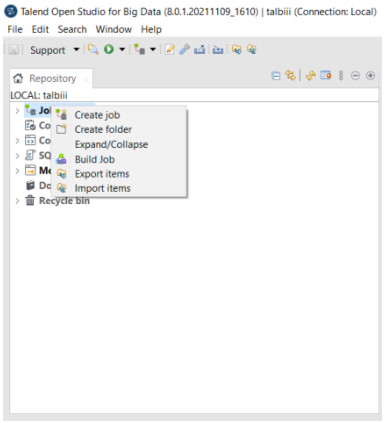
# Report about Talend

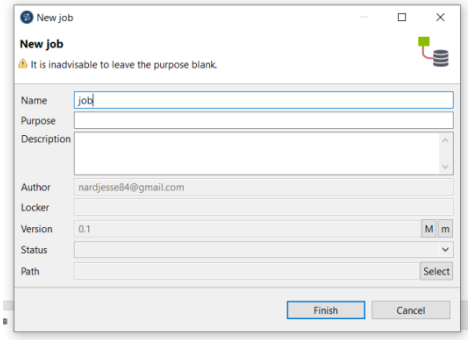
**Submitted By:**
Chebicheb Kheireddine
Nardjis Belounis
Mokhtari Hadj Mohamed

14 November 2022

## How to create a job:

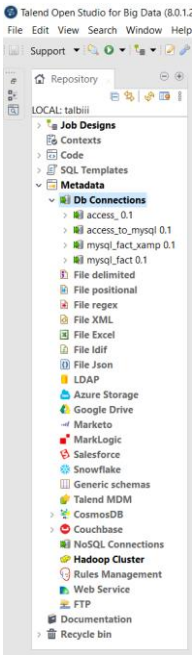
The step to create a job in the repository section at job design with the right click on it and create the job and name it and press finished.

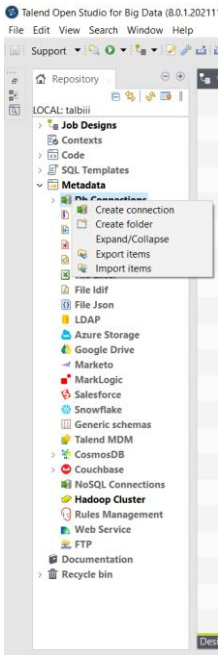


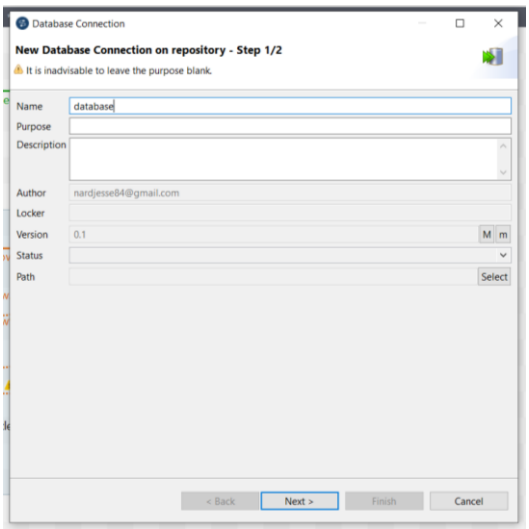




## How to make connection to access and MySql database:

To make a connection to the database you need to go to reposition section in the metadata and open it, DB connection with the right click of the mouse will show you a windows pressure to create a connection will show another window you will name your connection and pressure to next.



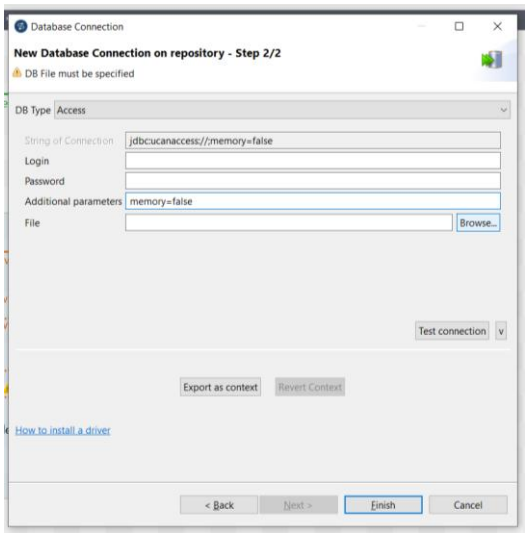



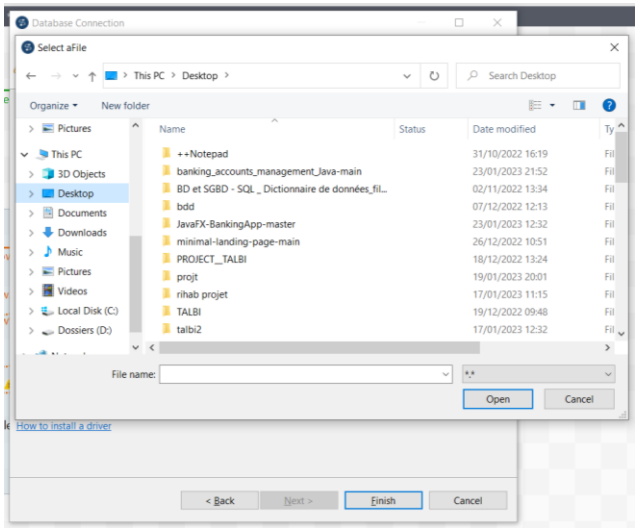



the next step is to add information of the connection.

## How to add access connection:

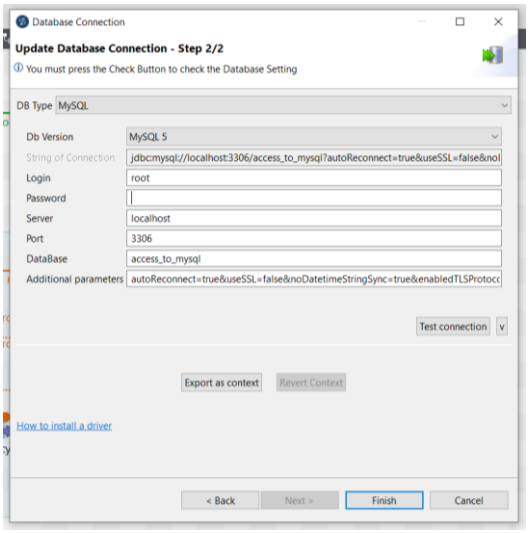
1- In the DB type choose access database.
2- In the additional parameter delete:
"jackcessOpener=org.talend.ucanaccess.encrypt.CryptCodecOpener;"
3- Press at browser and search of the access database.
4- Press “Test Connection” and finish.



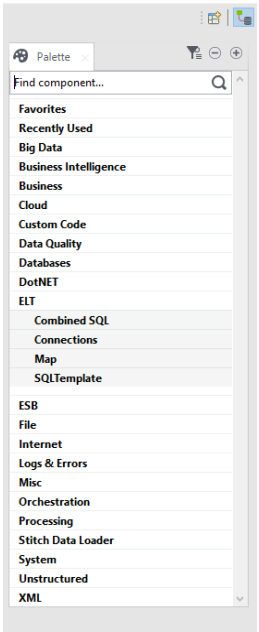

## How to add MySql connection:

1- In the DB type choose MySql database.
2- In the DB version choose the version of MySql you have. - Better to work with MySql 5 –
3- Put the name and the password and the server and the port and the database name.
4- In the additional parameter add this statement:
" autoReconnect=true&useSSL=false".
5- Press “Test connection” and finish.

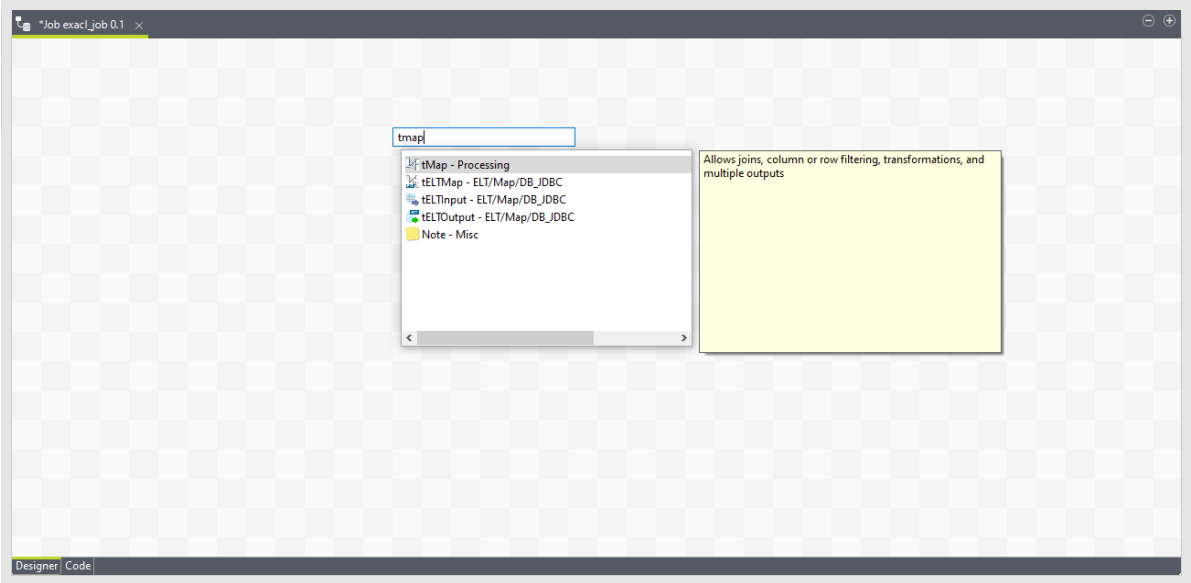



## How to create a component:

The first way is by searching for your element in the Platte section




The second way is by clicking on any place in the workplace and writing the name of the component




## Components are used:

## The tPrejob and tPostjob:

The **tPrejob** and **tPostjob** components are designed to make the execution of tasks before and after a given Job easier to manage. These components differ from other components in that they do not actually process data and they do not have any components properties to be configured. A key feature of these components is that they are always guaranteed to be executed, even if the main data Job fails. Therefore, they are very useful for setup and teardown actions for a given Job.

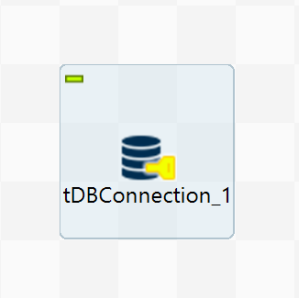
To use these tPrejob and tPostjob components, simply drop them onto the design workspace as you would do with any other components, and then connect tPrejob to a component or subJob that is meant to perform a pre-job task, and tPostjob to a component or subJob that is meant to perform a post-job task, using Trigger connections. An orange square on the pre- and post-job parts indicates that they are different types of subJobs.

## tDBConnection

Opens a connection to a database to be reused in the subsequent subJob or subJobs.
This component works with a variety of databases depending on your selection.

## tDBConnection Standard properties

These properties are used to configure tDBConnection running in the Standard Job framework.
The Standard tDBConnection component belongs to the Databases family.
The component in this framework is available in all Talend products.

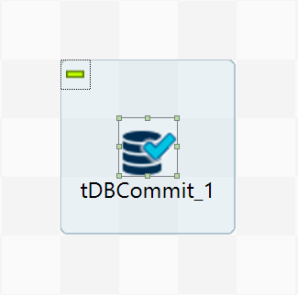



## tDBCommit

Validates the data processed through the Job into the connected database.
This component works with a variety of databases depending on your selection.

## tDBCommit Standard properties

These properties are used to configure tDBCommit running in the Standard Job framework.
The Standard tDBCommit component belongs to the Databases family.
The component in this framework is available in all Talend products.



## tDBClose

Closes the transaction committed in a connected database.

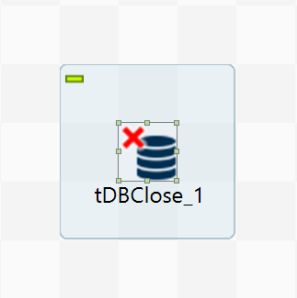
This component works with a variety of databases depending on your selection.

## tDBClose Standard properties

These properties are used to configure tDBClose running in the Standard Job framework.

The Standard tDBClose component belongs to the Databases family.

The component in this framework is available in all Talend products.




## tDBInput

Extracts data from a database.

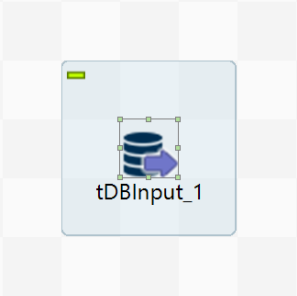
This component works with a variety of databases depending on your selection.

## tDBInput Standard properties

These properties are used to configure tDBInput running in the Standard Job framework.

The Standard tDBInput component belongs to the Databases family.

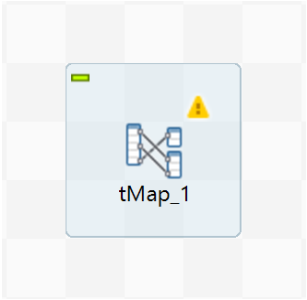
The component in this framework is available in all Talend products.



## The tMap:

The tMap component is part of the Processing family of components. tMap is one of the core components and is primarily used for mapping input data to output data, that is, mapping one Schema to another.

As well as performing mapping functions, tMap may also be used to Join multiple inputs, and to write multiple outputs. Additionally, you can Filter data within the tMap component.




## tDBOutput

Writes, updates, makes changes or suppresses entries in a database.

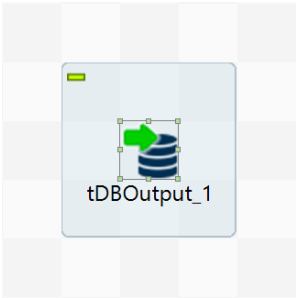
This component works with a variety of databases depending on your selection.

## tDBOutput Standard properties

These properties are used to configure tDBOutput running in the Standard Job framework.

The Standard tDBOutput component belongs to the Databases family.

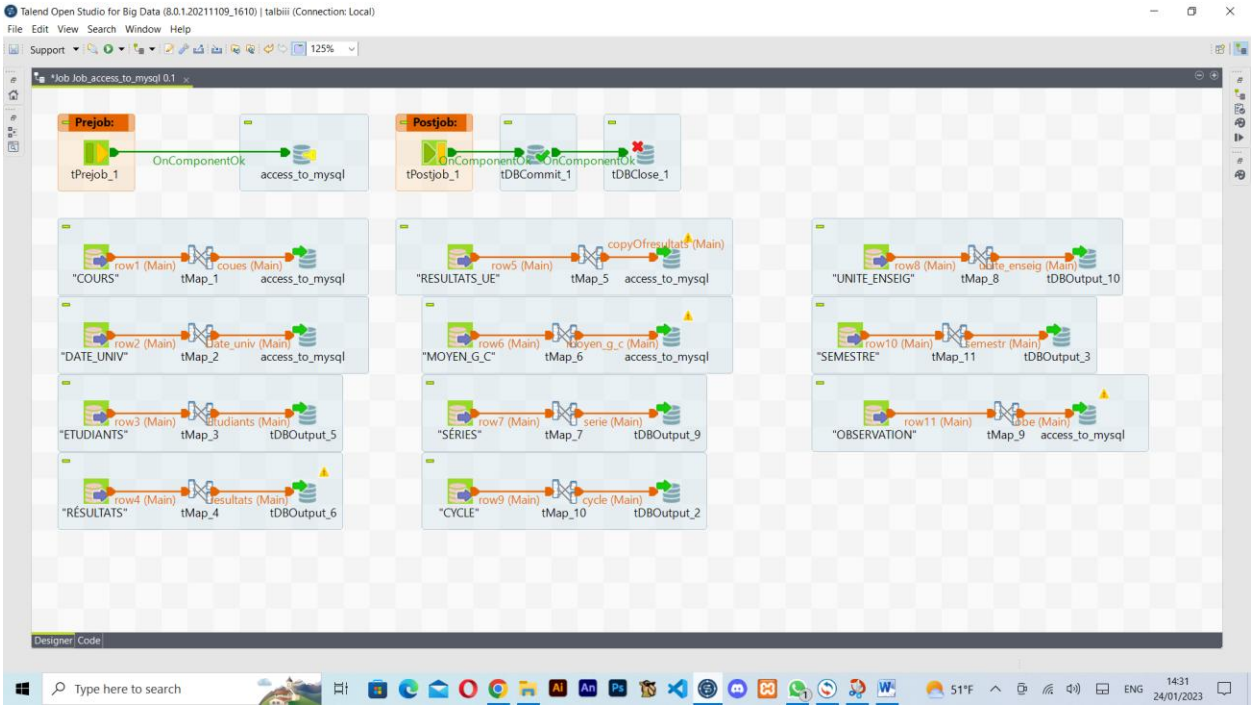
The component in this framework is available in all Talend products.



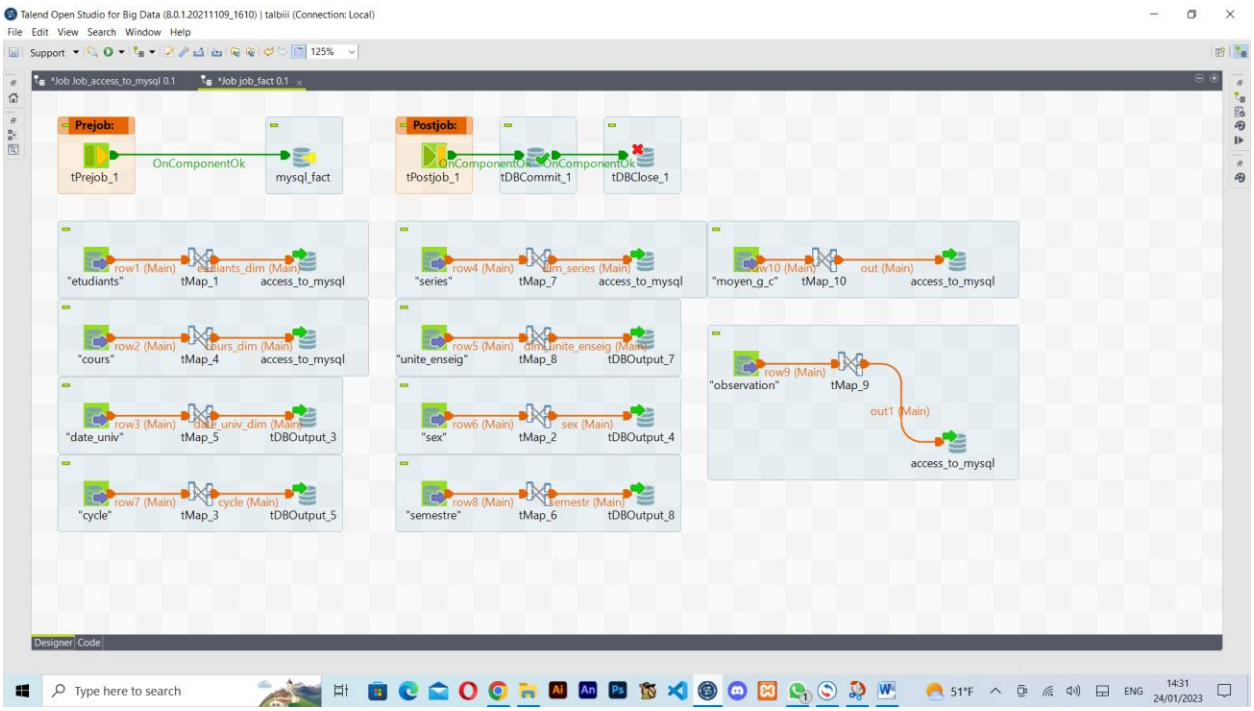
## What will we do in talend:

**Note:** *We add Prejob, Postjob, DBconnection,DBcommet, and DBclose for all the jobs.*

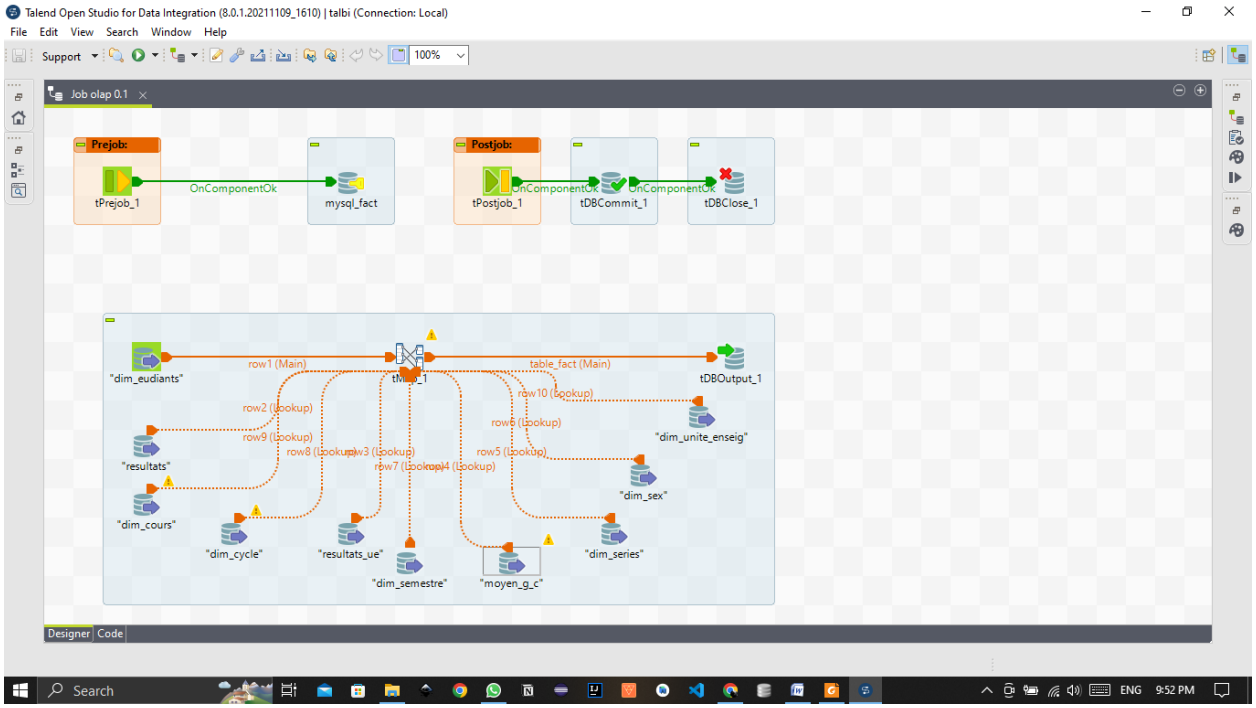

The first thing we do is create the first job under the name job is access to MySQL in this job we convert all databases in access to MySQL in this job we create an access input and connected to tMap and make the convert we need for the variable type and connect the tMap with output MySQL and ended with the postjob commit and close the database.

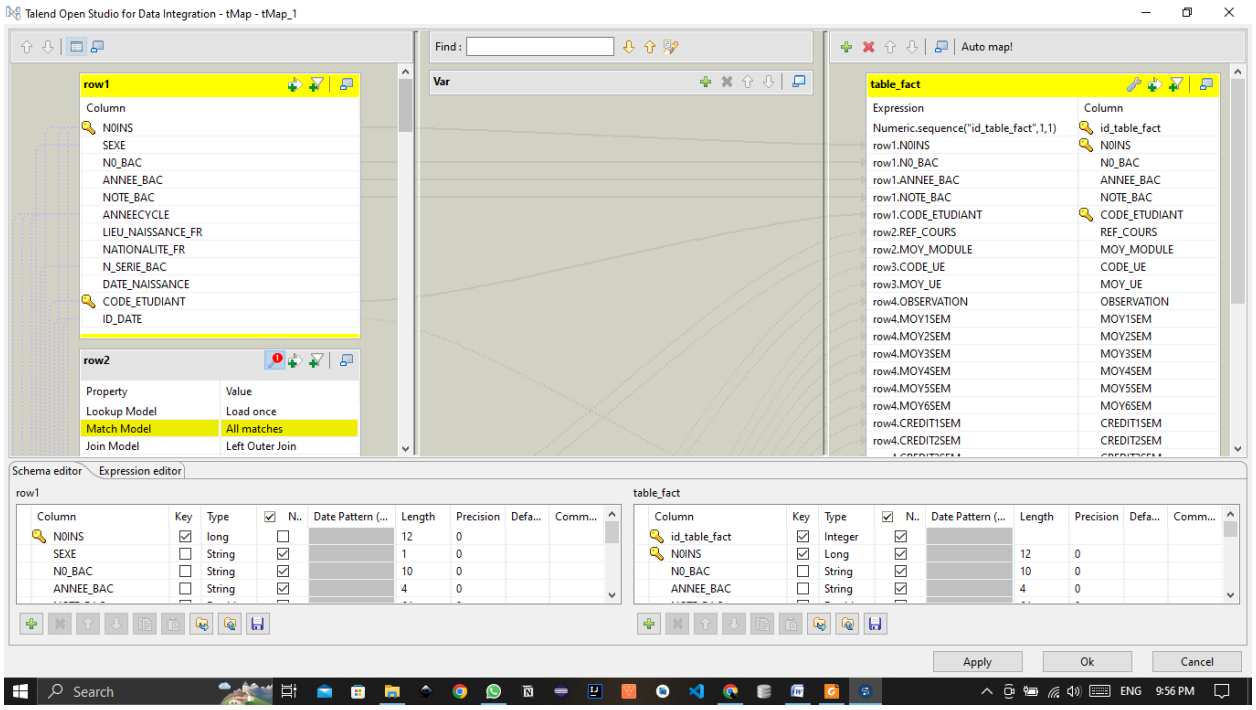



For the second job under the name job fact we start with the Prejob and DB connection and make the tables dimension with the same step as the first job take input table from MySQL and to the tMap and the input DB.




In the last job which was named job_olap we create our table fact and the schema, so we import all the tables we need, we start with prejob and the connection and the post job and the commit, and the close database, and import all the table that exists in the schema and connect with the tmap and make the relation between the table and making the outbut table fact.


Talend Open Studio for Data Integration (8.0.1.20211109_1610) | talbi (Connection: Local)
File Edit View Search Window Help
Job olap 0.1
Prejob:
tPrejob_1
OnComponentOk
mysql_fact
Postjob:
tPostjob_1
tDBCommit_1
tDBClose_1
"dim_eudiants"
row1 (Main)
tMap_1
table_fact (Main)
tDBOutput_1
row2 (Lookup)
row9 (Lookup)
row8 (Lookup)
row3 (Lookup)
row7 (Lookup)
row4 (Lookup)
row5 (Lookup)
row6 (Lookup)
row10 (Lookup)
"resultats"
"dim_cours"
"dim_cycle"
"resultats_ue"
"dim_semestre"
"moyen_g_c"
"dim_series"
"dim_sex"
"dim_unite_enseig"
Designer Code
Search
ENG 9:52 PM


Talend Open Studio for Data Integration - tMap - tMap_1
Find :
Auto map!
row1
Column
N0INS
SEXE
N0_BAC
ANNEE_BAC
NOTE_BAC
ANNEECYCLE
LIEU_NAISSANCE_FR
NATIONALITE_FR
N_SERIE_BAC
DATE_NAISSANCE
CODE_ETUDIANT
ID_DATE
row2
Property
Value
Lookup Model
Load once
Match Model
All matches
Join Model
Left Outer Join
Var
table_fact
Expression
Column
Numeric.sequence("id_table_fact",1,1)
id_table_fact
row1.N0INS
N0INS
row1.N0_BAC
N0_BAC
row1.ANNEE_BAC
ANNEE_BAC
row1.NOTE_BAC
NOTE_BAC
row1.CODE_ETUDIANT
CODE_ETUDIANT
row2.REF_COURS
REF_COURS
row2.MOY_MODULE
MOY_MODULE
row3.CODE_UE
CODE_UE
row3.MOY_UE
MOY_UE
row4.OBSERVATION
OBSERVATION
row4.MOY1SEM
MOY1SEM
row4.MOY2SEM
MOY2SEM
row4.MOY3SEM
MOY3SEM
row4.MOY4SEM
MOY4SEM
row4.MOY5SEM
MOY5SEM
row4.MOY6SEM
MOY6SEM
row4.CREDIT1SEM
CREDIT1SEM
row4.CREDIT2SEM
CREDIT2SEM
Schema editor
Expression editor
row1
Column Key Type N.. Date Pattern (... Length Precision Defa... Comm...
N0INS long 12 0
SEXE String 1 0
N0_BAC String 10 0
ANNEE_BAC String 4 0
table_fact
Column Key Type N.. Date Pattern (... Length Precision Defa... Comm...
id_table_fact Integer
N0INS Long 12 0
N0_BAC String 10 0
ANNEE_BAC String 4 0
Apply
Ok
Cancel
Search
ENG 9:56 PM